

---

**CRANFIELD UNIVERSITY**

**School of Management  
Management and Organisational Development Group**

**PhD Thesis**

**Academic Year 1998-99**

**VAL SINGH**

**AN EXPLORATION OF MALE AND FEMALE MANAGERS'  
PERSPECTIVES ON THE MEANING AND ASSESSMENT OF  
COMMITMENT: CASES FROM LEADING BRITISH AND  
SWEDISH ENGINEERING COMPANIES**

**Supervisor: Dr Susan Vinnicombe**

**July 1999**

**© Cranfield University, 1999. All rights reserved. No part of this publication  
may be reproduced without the written permission of the copyright holder.**

**AN EXPLORATION OF MALE AND FEMALE MANAGERS' PERSPECTIVES ON THE  
MEANING AND ASSESSMENT OF "COMMITMENT": CASES FROM LEADING  
BRITISH AND SWEDISH ENGINEERING ORGANISATIONS**

**DR VAL SINGH**

**CRANFIELD SCHOOL OF MANAGEMENT, CRANFIELD UNIVERSITY**

**ABSTRACT OF THESIS, SEPTEMBER 1999**

This thesis explores the issue of why female managers' commitment is so often reported as being less of that of males, despite research evidence that there is no gender difference in levels of commitment. No previous research was found which reported managerial meanings of "commitment", usually conceptualised with an affective component resulting in loyalty and effort, and a continuance component, the desire to stay in an organisation. Meanings of "commitment" in three major engineering companies were elicited through interviews with 37 engineering managers in the UK and Sweden. The sample included sixteen male/female pairs matched on age, qualifications and job position, from top, middle and junior levels of management.

The meanings important to managers were the manifested behaviours of commitment at work. The most common of the 36 elicited meanings were task delivery, putting yourself out, involvement, and quality. Overall, male meanings were more similar to top managers' meanings than female meanings. Top women's meanings were similar to those of top men, sharing meanings of being proactive/using initiative, being ready for challenge, being creative/innovative, and being business aware. More women overall gave meanings oriented towards the organisation, particularly good citizen behaviours, which would be less visible to managers, whilst more men overall gave meanings, benefiting themselves as well as the organisation, which were very active and highly visible. Five types of commitment meanings were identified: Virtuous, Volunteer, Virtuoso, Vanguard and Gender-Shared.

In a later questionnaire, the sample were asked to rate the importance of their 36 meanings of commitment in terms of their own view and their perceived view of how their organisation would rate them. Through gaps between individual and perceived organisational ratings, tensions were identified and mapped, providing a guide for an in-depth analysis of meanings with the greatest tensions, particularly on hours over the norm perceived to be valued more by the organisation, and on getting balance, enjoying work, thinking of oneself as well as the organisation, and being people-concerned. Interviewees at all levels indicated the importance of getting work/nonwork balance, most rejecting the notion of commitment meaning working additional hours. Attitudes to managers seeking maternity/paternity leave were reported. Through the Swedish comparison, a trend was identified that where most male managers take extended paternity leave, the issue which is seen as a woman's individual problem in the UK becomes an organisational planning issue in Sweden. Thus, perceived lesser commitment is transformed into less unplanned availability for a short period.

## ABSTRACT

---

The process of commitment assessment has also been explored and a number of dimensions drawn out, particularly the tacit nature of the evidence, the subjectivity of assessment, and the manager's susceptibility to influence. These affect the way in which commitment behaviours are interpreted by the manager, as both males and females use impression management strategies to demonstrate their commitment.

The contribution of this thesis is to the commitment field, in identifying managers' meanings of commitment, and to the women in management field, where evidence is presented of the differences in male and female meanings of commitment, and the importance of visibility of commitment to managers. As women's meanings are less visible than those of men in this sample, this suggests an explanation of why women's commitment is still challenged.

## ACKNOWLEDGEMENTS

This journey is coming to its end, and many people have helped me along the way. Without them, I would not have discovered so much about the world and myself, as well as about the subject of this thesis. For this enrichment of my life, I am grateful.

Firstly, I want to thank my supervisor, Sue Vinnicombe, who has been so encouraging, letting me discover for myself what was necessary, yet keeping a guiding hand so that I did not go too far down the many enticing paths which lure the enthusiastic doctoral student. Undertaking the PhD at Cranfield has never been a lonely path to tread. Indeed, some of it has been fun, and with my various “hats” as research manager, Nudist-4 tutor and student, I have enjoyed the friendship and support of many fellow students over the past four years, particularly my fellow-cohort members Kusum Sahdev and Georgina Seery, and also Richard Ford, Isabel Cames, Jane Sturges, and Savita Kumra. I want to thank our head of school, Leo Murray, for supporting me as a staff candidate, and my doctoral review panel, chaired by Shaun Tyson, with Tony Millman, Veronica Hope-Hailey and David Partington, for their valuable advice. My colleagues in the Research Office, Barbara Birtles, Wayne Bulbrook and Valerie Bence, have been a great source of support through this period and I want to express my gratitude to them for their special interest.

I should take this opportunity to thank the three company sponsors of my project, who so kindly arranged access for me, and gave me feedback. Also, many thanks to the interviewees who gave up their valuable time to talk to me on this intangible subject of commitment. *Tack så mycket* to my Swedish friends, especially Ulf and Leif.

I also thank Professor Sir John Daniel, for awarding me the Open University Crowther Fund award which supported the fieldwork costs of the Swedish research.

Sadly, my mother, Irene, died earlier this year, without seeing the completion of the work, and I thank her, and my late father, James, for their love and dedication. My thanks also to my Indian family, for their interest, support and love.

The long period of study from when I started this new career with a BSc at the Open University has meant much disruption at home, for my husband and our three sons, Sunil, Vijay and Arjun who have all graduated during this time. Researching and writing this thesis has been a task which has clarified for me the enormous moral support which I have had from my husband, Riti, without whose encouragement this work would have never been started. Despite his own busy life, he has always been willing to make time for me to talk things through, to make me take a break, to be critical in the most positive way, and has made such a contribution to this exceptionally busy but developmental and rewarding period of my life.

This thesis is dedicated to my family, with love.

Val Singh, Cranfield, September 1999

|                                                                   |           |
|-------------------------------------------------------------------|-----------|
| <b>CHAPTER ONE: INTRODUCTION .....</b>                            | <b>1</b>  |
| <b>1.1 THE OBJECTIVES OF THE RESEARCH.....</b>                    | <b>1</b>  |
| <b>1.2 INTRODUCTION TO THE RESEARCH ISSUE.....</b>                | <b>2</b>  |
| <b>1.3 COMMITMENT AND ITS CHANGING CONTEXT.....</b>               | <b>3</b>  |
| <b>1.4 THE CHANGING ENGINEERING PROFESSION .....</b>              | <b>5</b>  |
| <b>1.5 RATIONALE FOR A BRITISH/SWEDISH STUDY .....</b>            | <b>6</b>  |
| <b>1.6 THE RESEARCH QUESTIONS .....</b>                           | <b>7</b>  |
| <b>1.7 THE INTERPRETIVE APPROACH.....</b>                         | <b>8</b>  |
| <b>1.8 THE PROJECT PROCESS.....</b>                               | <b>8</b>  |
| <b>1.9 THE CONTRIBUTION OF THIS STUDY.....</b>                    | <b>10</b> |
| <b>1.10 SUMMARY OF THESIS CHAPTERS .....</b>                      | <b>11</b> |
| <b>1.11 POSTSCRIPT TO CHAPTER ONE .....</b>                       | <b>15</b> |
| <b><i>THE ORIGINS OF THE STUDY – A PERSONAL JOURNEY .....</i></b> | <b>15</b> |
| <b>2.1 INTRODUCTION TO CHAPTER TWO .....</b>                      | <b>18</b> |
| <b>2.2 WOMEN IN ENGINEERING MANAGEMENT.....</b>                   | <b>20</b> |
| 2.2.1 INTRODUCTION .....                                          | 20        |
| 2.2.2 CAREER STRUCTURES OF WOMEN IN MANAGEMENT.....               | 20        |
| 2.2.3 THE TOURNAMENT CAREER STRUCTURE MODEL .....                 | 20        |
| 2.2.4 EQUAL OPPORTUNITIES FOR WOMEN ENGINEERS.....                | 21        |
| 2.2.5 THE GLASS CEILING AND BARRIERS TO PROMOTION .....           | 22        |
| 2.2.6 THE GLASS CEILING FOR UK WOMEN ENGINEERS .....              | 23        |
| 2.2.7 GENDER POLITICAL RELATIONS.....                             | 23        |
| 2.2.8 WOMEN ENGINEERS AS TOKEN AND PIONEER WOMEN.....             | 27        |
| 2.2.9 MALE-FEMALE MANAGEMENT STYLE DIFFERENCES.....               | 27        |
| 2.2.10 ASSESSMENT, PROMOTION AND STEREOTYPING.....                | 28        |
| 2.2.11 CAREER DEVELOPMENT OPPORTUNITIES.....                      | 30        |
| 2.2.12 WOMEN ENGINEERING MANAGERS AND CAREER BREAKS.....          | 30        |
| 2.2.13 WOMEN IN ENGINEERING MANAGEMENT IN SWEDEN .....            | 31        |
| 2.2.14 CONCLUSION – A CHALLENGE FOR THE FUTURE .....              | 32        |
| <b>2.3 WORK/NONWORK BOUNDARIES.....</b>                           | <b>33</b> |
| 2.3.1 DO “COMMITMENTS” HAVE TO CONFLICT?.....                     | 33        |

|            |                                                                     |           |
|------------|---------------------------------------------------------------------|-----------|
| 2.3.2      | CONFLICT OF COMPETING WORK AND NONWORK (USUALLY FAMILY) ROLES ..... | 34        |
| 2.3.3      | DUAL CAREER COUPLES .....                                           | 34        |
| 2.3.4      | INDIVIDUAL STRATEGIES FOR DEALING WITH WORK/NONWORK CONFLICT .....  | 35        |
| 2.3.5      | ORGANISATIONAL POLICIES FOR BOUNDARY CONTROL .....                  | 36        |
| 2.3.6      | ORGANISATIONAL FLEXIBILITY POLICIES .....                           | 37        |
| <b>2.4</b> | <b>CAREER ANCHORS .....</b>                                         | <b>38</b> |
| 2.4.1      | DEFINITION OF THE CAREER ANCHOR.....                                | 38        |
| 2.4.2      | UPDATING THE CAREER ANCHOR IN THE 1990S AND BEYOND .....            | 39        |
| 2.4.3      | TECHNICAL/FUNCTIONAL COMPETENCE (TF).....                           | 39        |
| 2.4.4      | GENERAL MANAGERIAL COMPETENCE (GM) .....                            | 39        |
| 2.4.5      | AUTONOMY/INDEPENDENCE (AU).....                                     | 40        |
| 2.4.6      | SECURITY/STABILITY (SE).....                                        | 40        |
| 2.4.7      | ENTREPRENEURIAL CREATIVITY (EC) .....                               | 40        |
| 2.4.8      | SERVICE/DEDICATION TO A CAUSE (SV) .....                            | 40        |
| 2.4.9      | PURE CHALLENGE (CH).....                                            | 40        |
| 2.4.10     | LIFESTYLE ANCHORS (LS).....                                         | 41        |
| 2.4.11     | THE CAREER ANCHOR AND THE PSYCHOLOGICAL CONTRACT .....              | 41        |
| 2.4.12     | CAREER ANCHORS AND ENGINEERS .....                                  | 41        |
| <b>2.5</b> | <b>BRITISH &amp; SWEDISH ENGINEERING CAREERS .....</b>              | <b>43</b> |
| 2.5.1      | BACKGROUND ON AEROSPACE CAREERS .....                               | 43        |
| 2.5.2      | SWEDEN: PROFESSIONAL ENGINEER STATUS .....                          | 43        |
| 2.5.3      | UK: PROFESSIONAL CHARTERING AND COMMITMENT EVALUATION.....          | 44        |
| 2.5.4      | SMALL NUMBERS ENTERING THE ENGINEERING PROFESSION .....             | 45        |
| 2.5.5      | MANAGERIAL LEVELS IN ENGINEERING.....                               | 45        |
| <b>2.6</b> | <b>THE INFLUENCE OF CULTURE .....</b>                               | <b>47</b> |
| 2.6.1      | RATIONALE FOR THE TWO COUNTRY STUDY .....                           | 47        |
| 2.6.2      | AN OVERVIEW OF CULTURE .....                                        | 47        |
| 2.6.3      | THE ENGINEERING SUB-CULTURE .....                                   | 48        |
| 2.6.4      | NATIONAL CULTURAL DIFFERENCES BETWEEN THE UK AND SWEDEN .....       | 49        |
| 2.6.5      | EMPLOYEE RELATIONS IN SWEDEN AND BRITAIN.....                       | 50        |
| 2.6.6      | THE INFLUENCE OF CULTURE ON THE PRESENT STUDY .....                 | 51        |
| <b>2.7</b> | <b>CONCLUSION TO PART 1 OF LITERATURE REVIEW .....</b>              | <b>51</b> |
| <b>3.1</b> | <b>INTRODUCTION TO CHAPTER THREE .....</b>                          | <b>52</b> |
| <b>3.2</b> | <b>INTRODUCTION TO MEANING .....</b>                                | <b>54</b> |
| <b>3.3</b> | <b>TRADITIONAL MODELS OF COMMITMENT .....</b>                       | <b>56</b> |
| 3.3.1      | THE MOTIVATIONAL ORIGINS OF COMMITMENT.....                         | 56        |
| 3.3.2      | CONCEPTUALISATION OF COMMITMENT .....                               | 56        |
| 3.3.3      | BASES AND FOCI OF COMMITMENT .....                                  | 59        |

|            |                                                                       |           |
|------------|-----------------------------------------------------------------------|-----------|
| 3.3.4      | PROBLEMS WITH MEASUREMENT OF ORGANISATIONAL COMMITMENT – THE OCQ..... | 60        |
| 3.3.5      | THE BRITISH (COOK AND WALL) COMMITMENT SCALE .....                    | 60        |
| <b>3.4</b> | <b>THE WORK COMMITMENT MODELS.....</b>                                | <b>62</b> |
| 3.4.1      | RANDALL & COTE’S (1991) MODEL .....                                   | 62        |
| 3.4.2      | MORROW’S (1993) MODEL .....                                           | 62        |
| 3.4.3      | WORK ETHIC ENDORSEMENT.....                                           | 62        |
| 3.4.4      | CAREER COMMITMENT .....                                               | 63        |
| 3.4.5      | CONTINUANCE COMMITMENT .....                                          | 64        |
| 3.4.6      | AFFECTIVE COMMITMENT.....                                             | 64        |
| 3.4.7      | JOB INVOLVEMENT.....                                                  | 64        |
| 3.4.8      | COHEN’S (1999) MODELS .....                                           | 64        |
| <b>3.5</b> | <b>INDIVIDUAL MEANINGS OF COMMITMENT.....</b>                         | <b>53</b> |
| 3.5.1      | WHAT DOES COMMITMENT MEAN IN THE WORKPLACE?.....                      | 53        |
| 3.5.2      | BEHAVIOURAL APPROACHES TO RESEARCHING COMMITMENT .....                | 53        |
| <b>3.6</b> | <b>SELF-REPORTED COMMITMENT AND GENDER.....</b>                       | <b>57</b> |
| 3.6.1      | NO DIFFERENCE IN MALE AND FEMALE COMMITMENT .....                     | 57        |
| 3.6.2      | WOMEN ARE LESS AFFECTIVELY COMMITTED .....                            | 57        |
| <b>3.7</b> | <b>THE PSYCHOLOGICAL CONTRACT AND COMMITMENT.....</b>                 | <b>59</b> |
| 3.7.1      | RECENT SHIFTS IN THE COMMITMENT CLIMATE .....                         | 59        |
| 3.7.2      | DEFINITION OF THE PSYCHOLOGICAL CONTRACT .....                        | 59        |
| 3.7.3      | THE PSYCHOLOGICAL CONTRACT AS SOCIAL EXCHANGE.....                    | 60        |
| 3.7.4.     | ESTABLISHMENT AND DEVELOPMENT OF THE UNWRITTEN TERMS .....            | 60        |
| 3.7.5      | THE CONTRACTING OF THE PSYCHOLOGICAL CONTRACT .....                   | 61        |
| 3.7.6      | THE CONTENT OF THE PSYCHOLOGICAL CONTRACT .....                       | 62        |
| 3.7.7      | MOVING THE PSYCHOLOGICAL CONTRACT CONSTRUCT FORWARD.....              | 63        |
| 3.7.8      | DOWNSHIFTING , BALANCE AND CAREER ANCHORS.....                        | 64        |
| <b>3.8</b> | <b>MANAGERIAL ASSESSMENT OF COMMITMENT.....</b>                       | <b>65</b> |
| 3.8.1      | INTRODUCTION TO ASSESSMENT OF COMMITMENT .....                        | 65        |
| 3.8.2      | WORK PERFORMANCE ASSESSMENT OVERVIEW.....                             | 65        |
| 3.8.3      | MEASUREMENT SYSTEMS IN RELATION TO COMMITMENT.....                    | 66        |
| 3.8.4      | PROBLEMS WITH RATING SCALES .....                                     | 66        |
| 3.8.5      | PERFORMANCE EVALUATION INTERVIEWS .....                               | 67        |
| 3.8.6      | LINK BETWEEN RATER’S PERFORMANCE AND EVALUATION OF OTHERS .....       | 67        |
| 3.8.7      | POTENTIAL BIAS IN SYSTEMS OF PERFORMANCE RATING.....                  | 67        |
| 3.8.8      | PERSONAL JUSTIFICATIONS FOR RATINGS AND OUTCOMES .....                | 68        |
| 3.8.9      | RATER AND RATEE CHARACTERISTICS .....                                 | 68        |
| 3.8.10     | COGNITIVE PROCESSES INVOLVED IN RATING .....                          | 69        |
| 3.8.11     | STEREOTYPING OF WOMEN ENGINEERS- SEEN AS WOMEN FIRST .....            | 69        |
| 3.8.12     | OUTCOME OF STEREOTYPING ON PERCEPTIONS OF COMMITMENT .....            | 70        |

|             |                                                                          |           |
|-------------|--------------------------------------------------------------------------|-----------|
| 3.8.13      | CONCLUSION TO SECTION 3.8.....                                           | 71        |
| <b>3.9</b>  | <b>IMPRESSION MANAGEMENT (IM).....</b>                                   | <b>72</b> |
| 3.9.1       | CONSTRUCTING SOCIAL IDENTITIES.....                                      | 72        |
| 3.9.2       | INFLUENCE AND POWER.....                                                 | 73        |
| 3.9.3       | NON-VERBAL INFLUENCES .....                                              | 73        |
| 3.9.4       | UPWARDS INFLUENCE STRATEGIES.....                                        | 74        |
| 3.9.5       | INGRATIATION, SELF PROMOTION AND ACCLAIMING.....                         | 75        |
| 3.9.6       | EXEMPLIFICATION.....                                                     | 75        |
| 3.9.7       | PERFORMANCE RELATED BEHAVIOURS AND MEASUREMENT .....                     | 75        |
| <b>3.10</b> | <b>ORGANISATIONAL CITIZENSHIP BEHAVIOUR (OCB) .....</b>                  | <b>77</b> |
| 3.10.1      | RESEARCH INTO OCB.....                                                   | 77        |
| 3.10.2      | IN-ROLE AND EXTRA-ROLE BEHAVIOURS.....                                   | 77        |
| 3.10.3      | OCB AND IMPRESSION MANAGEMENT.....                                       | 78        |
| <b>3.11</b> | <b>OUTCOMES OF ASSESSMENT OF COMMITMENT .....</b>                        | <b>80</b> |
| 3.11.1      | INTRODUCTION TO THE OUTCOMES OF MANAGERIAL ASSESSMENT OF COMMITMENT .... | 80        |
| 3.11.2      | PERCEIVED COMMITMENT AND CAREER REWARDS .....                            | 80        |
| <b>3.12</b> | <b>SUMMING UP LITERATURE REVIEW ON COMMITMENT .....</b>                  | <b>83</b> |
| 3.12.1      | OVERVIEW OF LITERATURE IN CHAPTER 3 .....                                | 83        |
| 3.12.2      | PERCEIVED COMMITMENT AND OPPORTUNITIES FOR CHALLENGE .....               | 83        |
| <b>3.13</b> | <b>THE RESEARCH GAP AND QUESTIONS.....</b>                               | <b>85</b> |
| 3.13.1      | ADDING TO PREVIOUS WORK .....                                            | 85        |
| 3.13.2      | THE RESEARCH QUESTIONS.....                                              | 86        |
| <b>4.1</b>  | <b>INTRODUCTION TO CHAPTER FOUR.....</b>                                 | <b>88</b> |
| <b>4.2</b>  | <b>THE PHILOSOPHICAL APPROACH.....</b>                                   | <b>89</b> |
| 4.2.1       | OVERVIEW OF THE APPROACH .....                                           | 89        |
| 4.2.2       | ONTOLOGY - THE REALITY TO BE DISCOVERED.....                             | 89        |
| 4.2.3       | EPISTEMOLOGY - THE EVIDENCE .....                                        | 91        |
| 4.2.4       | THE CASE FOR A REALIST APPROACH.....                                     | 91        |
| 4.2.5       | USE OF MODELS.....                                                       | 92        |
| 4.2.6       | CONCLUSION TO PHILOSOPHY SECTION .....                                   | 93        |
| <b>4.3</b>  | <b>METHODOLOGICAL CHOICES AND RESEARCH DESIGN .....</b>                  | <b>95</b> |
| 4.3.1       | THE EXPLORATORY APPROACH .....                                           | 95        |
| 4.3.2       | CHOICE OF CASE STUDIES.....                                              | 95        |
| 4.3.3       | CHOICE OF DATA COLLECTION METHODS .....                                  | 97        |
| 4.3.4       | CHOICE OF CROSS-SECTIONAL RATHER THAN LONGITUDINAL DESIGN .....          | 97        |
| 4.3.5       | CHOICE OF LEVEL OF RESEARCHER INVOLVEMENT .....                          | 98        |
| <b>4.4</b>  | <b>RATIONALE FOR CASES FROM BOTH THE UK AND SWEDEN .....</b>             | <b>99</b> |



---

|             |                                                             |            |
|-------------|-------------------------------------------------------------|------------|
| 4.4.1       | RATIONALE.....                                              | 99         |
| 4.4.2       | LANGUAGE .....                                              | 99         |
| <b>4.5</b>  | <b>PRELIMINARY INTERVIEWS AND FOCUS GROUP MEETINGS.....</b> | <b>100</b> |
| 4.5.1       | SETTING UP THE PRELIMINARY STUDY .....                      | 100        |
| 4.5.2       | THE PRELIMINARY STUDY FINDINGS .....                        | 100        |
| 4.5.3       | SHIFT IN FOCUS TO PERCEPTIONS OF COMMITMENT .....           | 101        |
| <b>4.6</b>  | <b>RESEARCH METHODS: THE MAIN STUDY.....</b>                | <b>103</b> |
| 4.6.1       | THE PARTICIPANTS .....                                      | 103        |
| 4.6.2       | THE DATA COLLECTION SITES: UK-A, SWED-B AND SWED-C .....    | 107        |
|             | UK-A.....                                                   | 107        |
|             | Swed-B.....                                                 | 108        |
|             | Swed-C.....                                                 | 108        |
| <b>4.7</b>  | <b>STAGING THE INTERVIEWS.....</b>                          | <b>110</b> |
| 4.7.1       | THE FIRST INTERVIEWS.....                                   | 110        |
| 4.7.2       | FOCUSING THE SWEDISH INTERVIEWS.....                        | 110        |
| 4.7.3       | CARRYING OUT THE INTERVIEWS .....                           | 110        |
| <b>4.8</b>  | <b>NOTES ON THE INTERVIEW GUIDE, AS CONDUCTED .....</b>     | <b>112</b> |
| 4.8.1       | INTERVIEW GUIDE, SECTION 1 .....                            | 112        |
|             | <i>Introduction to the Interview</i> .....                  | 112        |
|             | 1: <i>The Meaning of “Commitment”</i> .....                 | 112        |
|             | 2: <i>The Manifestation of Commitment</i> .....             | 112        |
| 4.8.2       | INTERVIEW GUIDE, SECTION 2 .....                            | 113        |
|             | 3: <i>The Properties of “Commitment”</i> .....              | 113        |
|             | 4: <i>The Appraisal of Commitment</i> .....                 | 113        |
|             | 5: <i>Gender and Commitment</i> .....                       | 113        |
| 4.8.3       | THE COMMITMENT SIGNALLING DIAGRAM.....                      | 114        |
| 4.8.4       | ENDING THE INTERVIEW .....                                  | 115        |
| <b>4.9</b>  | <b>INTERVIEW DATA ANALYSIS .....</b>                        | <b>116</b> |
| 4.9.1       | OVERVIEW OF ANALYSIS METHOD .....                           | 116        |
| 4.9.2       | TRANSCRIPTION OF INTERVIEW DATA .....                       | 116        |
| 4.9.3       | THE FIRST SIX INTERVIEWS .....                              | 116        |
| 4.9.4       | SUMMARISING THROUGH THE MATCHED PAIRS .....                 | 117        |
| 4.9.5       | USING QSR NUD.IST.....                                      | 117        |
| 4.9.6       | PREPARATION OF THE DATA.....                                | 120        |
| 4.9.7       | CODING.....                                                 | 121        |
| 4.9.8       | THEMATIC CONTENT ANALYSIS AND CROSS-CASE DISPLAYS .....     | 124        |
| <b>4.10</b> | <b>THE CAREER ANCHOR INVENTORY .....</b>                    | <b>125</b> |
| <b>4.11</b> | <b>THE RATING OF MEANINGS QUESTIONNAIRE.....</b>            | <b>126</b> |

|             |                                                                                                                                           |            |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>4.12</b> | <b>TRIANGULATION AND BIAS.....</b>                                                                                                        | <b>127</b> |
| 4.12.1      | TRIANGULATION.....                                                                                                                        | 127        |
| 4.12.2      | ENHANCING TRUSTWORTHINESS .....                                                                                                           | 127        |
| 4.12.3      | BIAS DUE TO GENDER.....                                                                                                                   | 129        |
| 4.12.4      | BIAS DUE TO SOCIAL DESIRABILITY OF RESPONSES .....                                                                                        | 129        |
| <b>4.13</b> | <b>FOCUSING THE OUTPUT .....</b>                                                                                                          | <b>130</b> |
| <b>4.14</b> | <b>CONCLUSION TO CHAPTER FOUR.....</b>                                                                                                    | <b>130</b> |
| <b>5.1</b>  | <b>INTRODUCTION TO CHAPTER FIVE.....</b>                                                                                                  | <b>131</b> |
| <b>5.2</b>  | <b>ELICITATION OF MEANINGS.....</b>                                                                                                       | <b>133</b> |
| <b>5.3</b>  | <b>DESCRIPTIONS OF SENIOR ROLE MODELS OF HIGH COMMITMENT .....</b>                                                                        | <b>134</b> |
| 5.3.1       | THE USE OF THE “DESCRIBE A SENIOR ROLE MODEL OF COMMITMENT” QUESTION ...                                                                  | 134        |
| 5.3.2       | KEY ROLE MODEL CHARACTERISTICS OF “COMMITMENT” .....                                                                                      | 134        |
| 5.3.3       | CONSIDERATION OF RESPONSES BY GENDER OF INTERVIEWEE.....                                                                                  | 136        |
| 5.3.4       | OUTSTANDING ROLE MODELS OF COMMITMENT .....                                                                                               | 137        |
| <b>5.4.</b> | <b>THE MOST COMMONLY CITED MEANINGS OF “COMMITMENT IN A<br/>WORK CONTEXT”.....</b>                                                        | <b>139</b> |
| 5.4.1       | THE MEANINGS OF COMMITMENT.....                                                                                                           | 139        |
| 5.4.2       | TASK DELIVERY.....                                                                                                                        | 140        |
| 5.4.3       | PUTTING YOURSELF OUT.....                                                                                                                 | 141        |
| 5.4.4       | INVOLVEMENT .....                                                                                                                         | 142        |
| 5.4.5       | QUALITY .....                                                                                                                             | 143        |
| 5.4.6       | RESPONDENTS CITING HOURS PUT IN AS MEANING OF COMMITMENT.....                                                                             | 144        |
| <b>5.5</b>  | <b>TOP MANAGERS’ MEANINGS.....</b>                                                                                                        | <b>146</b> |
| 5.5.1       | NEW MEANINGS OF COMMITMENT: BE PROACTIVE/USE INITIATIVE, CHALLENGE,<br>CREATIVITY/INNOVATION, ADD VALUE/BUSINESS/CUSTOMER AWARENESS ..... | 146        |
| 5.5.2       | BE PROACTIVE, USE INITIATIVE.....                                                                                                         | 146        |
| 5.5.3       | READY FOR CHALLENGE.....                                                                                                                  | 147        |
| 5.5.4       | CREATIVITY AND INNOVATION .....                                                                                                           | 149        |
| 5.5.5       | ADD VALUE/BUSINESS/CUSTOMER AWARENESS.....                                                                                                | 150        |
| 5.5.6       | DIFFERENCES IN TOP, MIDDLE AND JUNIOR MANAGERS’ MEANINGS .....                                                                            | 151        |
| <b>5.6</b>  | <b>GENDER DIFFERENCES IN MEANINGS OF COMMITMENT.....</b>                                                                                  | <b>152</b> |
| <b>5.7</b>  | <b>AN OVERVIEW OF DIFFERENCES IN MEANINGS OF COMMITMENT .....</b>                                                                         | <b>154</b> |
| <b>5.8</b>  | <b>DISCUSSION OF FINDINGS.....</b>                                                                                                        | <b>156</b> |
| 5.8.1       | DIFFERENCES FROM EXPECTED MEANINGS BASED ON LITERATURE .....                                                                              | 156        |
| 5.8.2       | BRITISH AND SWEDISH SAMPLE DIFFERENCES IN MEANINGS OF COMMITMENT .....                                                                    | 156        |

|            |                                                                                   |            |
|------------|-----------------------------------------------------------------------------------|------------|
| 5.8.3      | MANAGERIAL LEVEL AND GENDER DIFFERENCES IN MEANINGS OF COMMITMENT ....            | 157        |
| 5.8.4      | THE HIGH-LOW VISIBILITY/INDIVIDUAL-ORGANISATIONAL ORIENTATION MATRIX ..           | 157        |
| <b>5.9</b> | <b>CONCLUSION TO CHAPTER FIVE.....</b>                                            | <b>161</b> |
| 5.9.1      | EVIDENCE FOR CHANGING NATURE OF COMPONENTS OF COMMITMENT. ....                    | 161        |
| 5.9.2      | MANAGERIAL LEVEL DIFFERENCES IN MEANINGS .....                                    | 161        |
| 5.9.3      | BRITISH/SWEDISH DIFFERENCES IN MEANINGS .....                                     | 161        |
| 5.9.4      | EMPHASIS ON GETTING A WORK/NONWORK BALANCE .....                                  | 161        |
| 5.9.5      | GENDER, VISIBILITY AND ORIENTATION OF COMMITMENT.....                             | 162        |
| 5.9.6      | ISSUES OF BIAS AND LIMITATIONS .....                                              | 162        |
| 5.9.7      | MOVING ON TO CHAPTER SIX .....                                                    | 163        |
| <b>6.1</b> | <b>INTRODUCTION TO CHAPTER SIX.....</b>                                           | <b>164</b> |
| <b>6.2</b> | <b>RATING OF OWN AND PERCEIVED ORGANISATIONAL MEANINGS OF<br/>COMMITMENT.....</b> | <b>166</b> |
| 6.2.1      | THE RATING FORM .....                                                             | 166        |
| 6.2.2      | THE BRITISH MALE AND FEMALE RATINGS .....                                         | 169        |
| 6.2.3      | THE SWEDISH MALE AND FEMALE RATINGS.....                                          | 172        |
| 6.2.4      | A COMPARISON OF BRITISH AND SWEDISH FEMALE AND MALE RATINGS .....                 | 173        |
| 6.2.5      | BRITISH TOP, MIDDLE AND JUNIOR MANAGEMENT LEVEL RATINGS.....                      | 179        |
| 6.2.6      | THE SWEDISH TOP, MIDDLE AND JUNIOR MANAGEMENT LEVEL RATINGS.....                  | 180        |
| 6.2.7      | SUMMING UP OF RATINGS RESULTS IN SECTION 6.2.....                                 | 180        |
| <b>6.3</b> | <b>CAREER ANCHORS .....</b>                                                       | <b>183</b> |
| <b>6.4</b> | <b>LINKING CAREER ANCHORS AND COMMITMENT.....</b>                                 | <b>186</b> |
| 6.4.1      | THE CAREER ANCHOR DRIVERS AND REWARDS .....                                       | 186        |
| <b>6.5</b> | <b>MANAGING THE TENSIONS: WORK/NONWORK BOUNDARIES .....</b>                       | <b>190</b> |
| 6.5.1      | REVIEW OF CHAPTER SIX SO FAR .....                                                | 190        |
| 6.5.2      | ZONE OF ACCEPTANCE OF COMMITMENT TERMS.....                                       | 190        |
| 6.5.3      | TENSIONS ON HOURS OVER THE NORM .....                                             | 191        |
| 6.5.4      | TENSION ON ENJOYING WORK .....                                                    | 191        |
| 6.5.5      | TENSION ON HAVING CONCERN FOR PEOPLE .....                                        | 192        |
| 6.5.6      | TENSION ON THINKING OF ONESELF AS WELL AS ONE'S ORGANISATION.....                 | 193        |
| 6.5.7      | ACCOMMODATING THE FAMILY TERMS .....                                              | 194        |
| 6.5.8      | NEGOTIATING WITH THE FAMILY .....                                                 | 194        |
| 6.5.9      | ACCOMMODATING THE ORGANISATIONAL TERMS .....                                      | 195        |
| 6.5.10     | NEGOTIATING WITH THE ORGANISATION.....                                            | 196        |
| 6.5.11     | STRATEGIES FOR GETTING BALANCE .....                                              | 198        |
| 6.5.12     | ROLE CONFLICT AND RESOLUTION.....                                                 | 202        |
| <b>6.6</b> | <b>CONCLUSION TO CHAPTER SIX .....</b>                                            | <b>204</b> |
| 6.6.1      | THE RATINGS AND THE TENSIONS ON CERTAIN COMPONENT MEANINGS .....                  | 204        |

|            |                                                                          |            |
|------------|--------------------------------------------------------------------------|------------|
| 6.6.2      | THE CAREER ANCHORS OF THE SAMPLE .....                                   | 204        |
| 6.6.3      | THE STRATEGIES FOR DEALING WITH THE TENSIONS .....                       | 204        |
| 6.6.4      | SUMMING UP THE CHAPTER.....                                              | 204        |
| <b>7.1</b> | <b>INTRODUCTION TO CHAPTER SEVEN.....</b>                                | <b>206</b> |
| <b>7.2</b> | <b>REACTIONS TO SIGNALLING MODEL .....</b>                               | <b>209</b> |
| 7.2.1      | AGREEMENT WITH LENS MODEL.....                                           | 209        |
| 7.2.2      | AGE-RELATED MALE ATTITUDES TO WOMEN IN MANAGEMENT.....                   | 210        |
| 7.2.3      | INFLUENCE OF FAMILY BACKGROUND ON MALE ATTITUDES .....                   | 211        |
| 7.2.4      | DISAGREEMENT WITH THE MODEL .....                                        | 212        |
| <b>7.3</b> | <b>ATTITUDES TO WOMEN'S COMMITMENT AND ROLES AT WORK .....</b>           | <b>214</b> |
| 7.3.1      | THE SOCIAL ROLE OF WOMEN IN MANAGEMENT .....                             | 214        |
| 7.3.2      | THE CAREER WOMAN ROLE .....                                              | 215        |
| 7.3.3      | THE MOTHER ROLE.....                                                     | 218        |
| <b>7.4</b> | <b>PARENTAL LEAVE.....</b>                                               | <b>220</b> |
| 7.4.1      | MATERNITY AND PATERNITY LEAVE AND PART-TIME WORK.....                    | 220        |
| 7.4.2      | ATTITUDES TO PATERNITY BREAKS – IT'S OK .....                            | 222        |
| 7.4.3      | ATTITUDES TO PATERNITY BREAKS – IT'S NOT REALLY OK.....                  | 223        |
| 7.4.4      | RATIONALE FOR RETENTION POST MATERNITY LEAVE .....                       | 225        |
| 7.4.5      | WHOSE PROBLEM IS IT ANYWAY? .....                                        | 226        |
| 7.4.6      | SUMMARY OF CHAPTER 7 SO FAR.....                                         | 227        |
| <b>7.5</b> | <b>THE NATURE OF COMMITMENT APPRAISAL .....</b>                          | <b>230</b> |
| 7.5.1      | EVIDENCE OF COMMITMENT .....                                             | 230        |
| 7.5.2      | TACITNESS OF COMMITMENT APPRAISAL .....                                  | 230        |
| 7.5.3      | LACK OF ORGANISATIONAL CONSIDERATION FOR CONTEXT OF COMMITMENT.....      | 231        |
| 7.5.4      | EXPERIENCES OF COMMITMENT APPRAISAL .....                                | 232        |
| 7.5.5      | SUMMING UP THE NATURE OF COMMITMENT APPRAISAL .....                      | 232        |
| <b>7.6</b> | <b>MEASUREMENT OF COMMITMENT .....</b>                                   | <b>233</b> |
| 7.6.1      | APPRAISAL FORMS.....                                                     | 233        |
| 7.6.2      | APPRAISAL FORMS AND COMMITMENT ASSESSMENT IN UK-A .....                  | 233        |
| 7.6.3      | APPRAISAL FORMS AND COMMITMENT ASSESSMENT IN SWED-B.....                 | 234        |
| 7.6.4      | APPRAISAL FORMS AND COMMITMENT ASSESSMENT IN SWED-C.....                 | 234        |
| 7.6.5      | MEASURES OF COMMITMENT.....                                              | 234        |
| 7.6.6      | TIME FRAME FOR APPRAISAL OF "COMMITMENT" .....                           | 236        |
| 7.6.7      | SUMMING UP SECTION 7.4 – MEASUREMENT OF COMMITMENT .....                 | 237        |
| <b>7.7</b> | <b>MANAGER'S ROLE IN APPRAISAL OF COMMITMENT .....</b>                   | <b>238</b> |
| 7.7.1      | DUTY TO PICK UP SIGNALS OF COMMITMENT .....                              | 238        |
| 7.7.2      | SETTING A GOOD EXAMPLE .....                                             | 239        |
| 7.7.3      | SUMMING UP SECTION 7.7 – EXPECTATIONS REGARDING THE ROLE OF MANAGER..... | 240        |

|             |                                                                             |            |
|-------------|-----------------------------------------------------------------------------|------------|
| <b>7.8</b>  | <b>MANAGING THE SIGNALS TO THE MANAGER .....</b>                            | <b>241</b> |
| 7.8.1       | IMPRESSION MANAGEMENT OF COMMITMENT .....                                   | 241        |
| 7.8.2       | GENDER AND NATIONAL DIFFERENCES IN MANAGING SIGNALS TO IMPRESS .....        | 243        |
| 7.8.3       | FAKING COMMITMENT .....                                                     | 246        |
| 7.8.4       | DISCUSSION OF SECTION 7.8 – MANAGING THE IMPRESSIONS OF COMMITMENT .....    | 246        |
| <b>7.9</b>  | <b>OUTCOME OF APPRAISAL OF COMMITMENT .....</b>                             | <b>251</b> |
| 7.9.1       | FILTER FOR PROMOTION, DEVELOPMENT AND CHALLENGE.....                        | 251        |
| 7.9.2       | ASSOCIATION WITH HIGH COMPETENCE AND AMBITION .....                         | 252        |
| 7.9.3       | IN THE MANAGER’S INTEREST .....                                             | 252        |
| 7.9.4       | WHEN THE ASSESSMENT IS NOT SO HIGH.....                                     | 253        |
| 7.9.5       | SUMMING UP SECTION 7.9 .....                                                | 254        |
| <b>7.10</b> | <b>CONCLUSION TO CHAPTER 7 – ASSESSMENT OF COMMITMENT .....</b>             | <b>255</b> |
| <b>8.1</b>  | <b>INTRODUCTION TO FINAL CHAPTER.....</b>                                   | <b>259</b> |
| <b>8.2</b>  | <b>POSITIONING THE THESIS .....</b>                                         | <b>261</b> |
| <b>8.3</b>  | <b>THE INTEGRATING MODEL .....</b>                                          | <b>263</b> |
| <b>8.4</b>  | <b>CONTRIBUTION OF THE RESEARCH TO THE COMMITMENT FIELD.....</b>            | <b>265</b> |
| 8.4.1       | IMPLICATIONS FOR THE COMMITMENT MEANINGS FIELD .....                        | 265        |
| 8.4.2       | IMPLICATIONS FOR THE WORK/LIFE BALANCE FIELD .....                          | 268        |
| 8.4.3       | IMPLICATIONS FOR THE ASSESSMENT OF COMMITMENT FIELD .....                   | 271        |
| <b>8.5</b>  | <b>CONTRIBUTION TO THE WOMEN IN MANAGEMENT THEORETICAL<br/>DOMAIN .....</b> | <b>274</b> |
| 8.5.1       | THE IMPORTANCE OF VISIBILITY.....                                           | 274        |
| 8.5.2       | THE EXPLANATIONS OF WOMEN’S PERCEIVED LESSER COMMITMENT .....               | 276        |
| <b>8.6</b>  | <b>BRITISH/SWEDISH CONTRASTS.....</b>                                       | <b>278</b> |
| 8.6.1       | EVIDENCE FROM BRITISH AND SWEDISH ENGINEERING MANAGERS.....                 | 278        |
| 8.6.2       | THE WIDER CONTEXT OF BRITISH AND SWEDISH INDUSTRIAL RELATIONS .....         | 278        |
| <b>8.7</b>  | <b>IMPLICATIONS FOR PRACTITIONERS.....</b>                                  | <b>280</b> |
| 8.7.1       | IMPLICATIONS FOR ORGANISATIONAL PRACTICE .....                              | 280        |
| 8.7.2       | IMPLICATIONS FOR WOMEN ENGINEERS .....                                      | 282        |
| <b>8.8</b>  | <b>LIMITATIONS OF THE RESEARCH.....</b>                                     | <b>283</b> |
| <b>8.9</b>  | <b>FURTHER RESEARCH.....</b>                                                | <b>285</b> |
| <b>8.10</b> | <b>POSTSCRIPT .....</b>                                                     | <b>286</b> |

## CHAPTER ONE: INTRODUCTION

### 1.1 THE OBJECTIVES OF THE RESEARCH

This thesis seeks to gain insight into why women engineering managers' commitment is still reported to be perceived to be less than that of their male peers. It does this through examining what the word "commitment" means in this context to practising senior, middle and junior managers in aerospace engineering companies. A large body of research exists on the concept of organisational commitment (OC), its antecedents, correlates and outcomes, but this is sometimes criticised for lack of attention paid to the epistemic correlation of the conceptualisation and operationalisation of the construct. A leading researcher on organisational commitment and its behavioural outcomes, Randall (1990) called for researchers

"to seek closer contact with the participants they are studying and develop an understanding of what they mean by OC, how they express it, and if the meaning attached to OC varies across different professions and workgroups" (p.376)

She then recommended that grounded models should be built to understand better the influence of commitment on behavioural outcomes. This present study is following in that field.

To provide contrast along a continuum of social and organisational support for working parents, given that many concerns about commitment are related to career breaks and part-time work, matched male/female pairs have been sought in both the UK and Sweden in the same industry. Working Swedish parents have the benefit of state and organisational support for both parents to afford and be involved in the care of their children, in contrast to working British parents, where good childcare is expensive and scarce, and paid maternity leave is very short (Bailyn, 1993). The thesis aims to surface engineering managers' meanings of commitment, their views of their organisational meanings of commitment, and how those meanings are used in the commitment assessment process. An interpretive approach is used, with evidence from interviews, questionnaires and documents such as annual appraisal forms. The study does identify some possible explanations as to why female managers are perceived to be less committed at work than males.

## 1.2 INTRODUCTION TO THE RESEARCH ISSUE

Male managers are frequently reported as saying that women managers are not committed enough for senior positions, both in the public press and in the research literature (Wajcman, 1996, Schein et al, 1996, Rubin, 1997). However, it is not clear what they really mean by "not committed enough". The words "commit" and "commitment" are defined in a dictionary as:

### ***Commit***

(transitive) "to hand over, as for safekeeping; charge; entrust"

(usually passive) "to pledge or align oneself as to a particular cause, action or attitude"

### ***Commitment***

- "1. the act of committing or pledging
2. the state of being committed or pledged
3. an obligation, promise etc that restricts one's freedom of action"

(Collins English Dictionary, 1986)

Devine (1992) and Evetts (1993, 1994) indicated that British males in engineering management were still making negative comments about women's commitment in the early 1990s. A possible explanation may be that men and women have different **meanings** of "commitment" which impact how they view commitment at work. Meaning is defined as:

"the comprehension of social actors, (their beliefs, motives, purposes, reasons in a social context), which at one and the same time automatically constitute an explanation of their actions and of the social occurrences to which these give rise" (Jary & Jary, 1991, p387)

According to Kamoche (1995, p367)) "one way to understand the nature of a phenomenon is to examine what the social actors say about it and the meanings they attach to it". This study explores the meaning of commitment, the evidence, and its assessment, to see whether these are influenced by gender and managerial level, with a sample from both the UK (with expensive and scarce childcare and less organisational flexibility) and Sweden (with state support for childcare and a higher level of organisational flexibility for working parents). This should illuminate the issue of women managers' perceived lesser commitment than their male peers.

### 1.3 COMMITMENT AND ITS CHANGING CONTEXT

“The concept of organisational commitment lies at the heart of any analysis of HRM. Indeed, the whole rationale for introducing HRM policies is to increase levels of commitment so that other positive outcomes can ensue” (Guest, 1998, p42).

Such is the importance of this concept, according to Guest. It is most commonly defined in the literature as identification with, and willingness to put in effort for, the organisation, together with a desire to remain in the organisation (Mowday, Porter & Steers, 1982). Previous research shows that the same operationalisation of the concept of commitment has remained for over twenty-five years (Guest, 1992). Yet the working environment has changed enormously since then. Previously, employers were concerned to retain all their employees, and so the kind of commitment which was important was that people should want to stay in their organisation, as well as be prepared to work hard. Since the 1970's, there have been large changes which affect commitment. Significantly more women have entered the workforce, more women are returning to work full-time after having children, and most women work part-time (Davidson & Cooper, 1992). So women are increasingly part of the workforce as we approach the end of the 1990s. Some of those women will be ambitious, competent and seeking career advancement in parallel with their male peers, but they face choices, opportunities and problems which are new, as some of them struggle to combine career and family in a work environment constructed for an earlier generation's family system, the working father with wife at home.

Other changes have been taking place which impact commitment. In the 1990s era of corporate downsizing and outsourcing, there has been a shift of career management responsibility from organisation to individual– the new psychological contract between employee and employer (Stiles, Gratton, Hope-Hailey & McGovern, 1997). The emphasis has moved from employment to employability. Rousseau & Tijoriwala (1998, p.683) commented that “a measure of ‘organizational commitment’ created during the heyday of the stable internal labour markets of the 1950s and 1960s may be difficult for employees to understand and respond to in the retrenchment and turmoil of the 1990s.” At the same time as there are demands from employees, particularly women, for family-friendly work arrangements, simultaneously there are pressures from organisations for individuals to accept flexible contracts (e.g. short-term, part-time, with fewer benefits). Whilst individuals may continue to work with commitment, there are inevitably changes in the relationship with the employer. Organisations have reacted either by offering a formal package of flexibility universally, or by tailoring individual packages to those whom they wish to keep optimally committed through deals made at performance appraisals with line



managers. Individuals may react to make the best of their changed circumstances, depending on personal work values, career anchors and competency (Sparrow, 1998).

Such changes have their own problems. Those who take up family-friendly work contracts may find that they are perceived to be less committed by their managers, and feel that they are losing career-wise in terms of centrality, lack of visibility, lack of networking, and less training investment (Simpson, 1997). Guest (1998) suggests that there will be new divisions of labour, facilitated by new technology, which may offer a chance to bring community into commitment, allowing simultaneous multiple commitments within and outside the core organisation. New technology (faxes, emails etc.) have changed the parameters of work time in which to be committed, and Guest mentions the impact of work addiction, as managers and professionals work ever longer hours, despite legislation restricting such practice. Both Guest and Simpson identify the control elements of commitment, as technology facilitates monitoring, and presenteeism at the workplace becomes almost a compulsory or compulsive symbol of commitment.

So the context within which commitment is evaluated has changed especially in the past ten years due to demographic shifts, an economic downturn and the impact of new technology. The conceptualisation of commitment should be examined, and in particular, the operationalisation of the concept, to see whether they are still as relevant as they were in the 1970s, when absenteeism and turnover were the big issues facing HRM professionals. A leading researcher, Argyris (1998) identified the importance of commitment, when he recently wrote:

“Commitment is not simply a human relations concept. It is an idea that is fundamental to our thinking about economics, strategy, financial governance, information technology and operations. Commitment is about generating human energy and activating the human mind. Without it, the implementation of any new initiative or idea would be seriously compromised.” (p.99)

However, in this study, it is not just the concept of commitment which is under scrutiny, but the use of the term “committed” when used by male and female engineering managers in the assessment of professional engineers. Assessment is a process, defined as “a sequence of events that describes how things change over time” (Pettigrew, 1997). Pettigrew says that time and history have to be taken into account in a case study, together with a balance of induction and deduction, to structure the analysis. The key features of a processual analysis are “embeddedness (studying processes across a number of levels of analysis), temporal interconnectedness (studying processes in past, present and future time), a role in explanation for context and action; a search for holistic rather than linear explanations of process; and a need to link process analysis to the location and explanation of outcomes” (p.340). These features will guide this study.

#### **1.4 THE CHANGING ENGINEERING PROFESSION**

Evaluation of “commitment” is a topical and important issue for engineering managers, both in the UK and Sweden, as the pool of high quality engineering graduates diminishes, and few women are attracted into the profession. The UK Engineering Council (1995) proposed that professional chartering of engineers should include an evaluation of their professional commitment by senior peers in their organisation. This system is about to start in late 1999. If assessors do not refer to the Engineering Council's definitions of professional commitment for chartering applications (“commitment to maintain professional competence, to work within professional codes and to participate actively in the profession”), then they may use their own meanings of the term. There are few female role models in management, and women's commitment is still questioned in the male-dominated world of engineering. If there are gendered meanings of “commitment”, this has implications for women engineers, who will usually be assessed by male managers.

One of the most important engineering industries today in the UK is the aerospace industry, “accounting for nearly one-third of the trade balance generated by net exporting UK companies. Employing more than 100,000 people, most of whom are highly skilled, it is a strategically important sector of the economy”, according to Thompson (1998). It is also an important industry for Sweden. This, therefore, is the site for the study. In the aerospace industry and elsewhere, engineers are being given increased opportunities to build up their own career experience portfolios through assignments on multi-national collaborative teams, and new service and training arrangements between engine users (such as airlines and power generators) and manufacturers (Singh & Vinnicombe, 1999). However, the engineers can no longer expect that their present organisation will offer them employment for life. Dual career couples may not be willing to offer the husband's employer the flexibility which was readily given when wives stayed at home. Does “commitment” still mean the same to employers and employees as before, in an industry where historically organisations did invest in long-term career development for their graduate engineers?

## **1.5 RATIONALE FOR A BRITISH/SWEDISH STUDY**

Perceptions of commitment may be connected to issues around women's roles and conflict between work and family commitments (Bailyn, 1993). For example, Rubin (1997) found that assessment of commitment in selection interviews was gendered, with female characteristics being seen as a problem by recruiters. Tomlinson et al (1997) reported that women managers' promotion opportunities in the UK retail trade were being limited by perceptions of their lack of commitment and ambition. It is not just in the UK that this is an issue. In Canada, Solomon (1998, p.80) reported several myths about women and work, one of which was that "there was a perception that women were less committed to the careers. The reality was that although they did take time off for childbirth, they had longer service records at every level except senior management." In Sweden, a recent research report from a Ministry of Health and Social Affairs committee (Wahl, 1995) identified male managers' perceptions of women as managers, based on ideas of women rather than on real experience of female managers, as the key barrier for aspiring and competent women. According to Wahl (p. 100), "the male top executives refer to children and the family as a problem of decisive importance – for women".

As Sweden provides a contrast to the UK in terms of certain important work conditions affecting women, such as the male/female pay gap, organisational flexibility, publicly funded childcare, and parental benefits (European Commission, 1997), it was decided to select a sample of matched male/female pairs of engineers, with half from a British company and half from a Swedish company. Eventually, two Swedish companies had to be used as there were not enough women at senior and middle management level in one Swedish company. The aerospace industry was chosen for its leading position at the forefront of technology, with regular graduate intakes.

## 1.6 THE RESEARCH QUESTIONS

Despite many studies on commitment, its antecedents and correlates, little is known about what managers mean by the term “commitment” when they evaluate someone's performance and motivation. A few studies have researched employees' meanings of commitment, but these tended to related to blue collar issues such as punctuality and not taking long smoking breaks. Managers do not often verbalise what they mean by “committed”, yet evidence from this study shows that they feel that they share a common understanding within their organisation. No research has been found which identified managers' meanings, yet it is their meanings, and how those meanings are used in assessment of women's commitment, which are crucial in real organisational settings. This, then is the gap, which this study addresses.

The overarching question is: **Why are female managers in engineering organisations perceived to be less committed than male managers?**

To address that issue, evidence is needed which can be ascertained by asking the following questions, in a very male dominated field, with samples from two countries, one offering a very high level of social and organisational support for working parents, the other offering a much lower level of support.

1. What is the meaning of “commitment” to engineers and managers in the aerospace and power industry in the UK and Sweden
2. Does gender influence the meaning of commitment held by engineering managers?
3. Does managerial level influence the meaning of commitment held by engineering managers?

This study is concerned with perceptions of how committed someone is, and therefore the thesis is dealing with a process of evaluation based on evidence. This leads to the fourth question, which does not appear to have been specifically addressed in the literature.

4. How is commitment signalled and assessed?

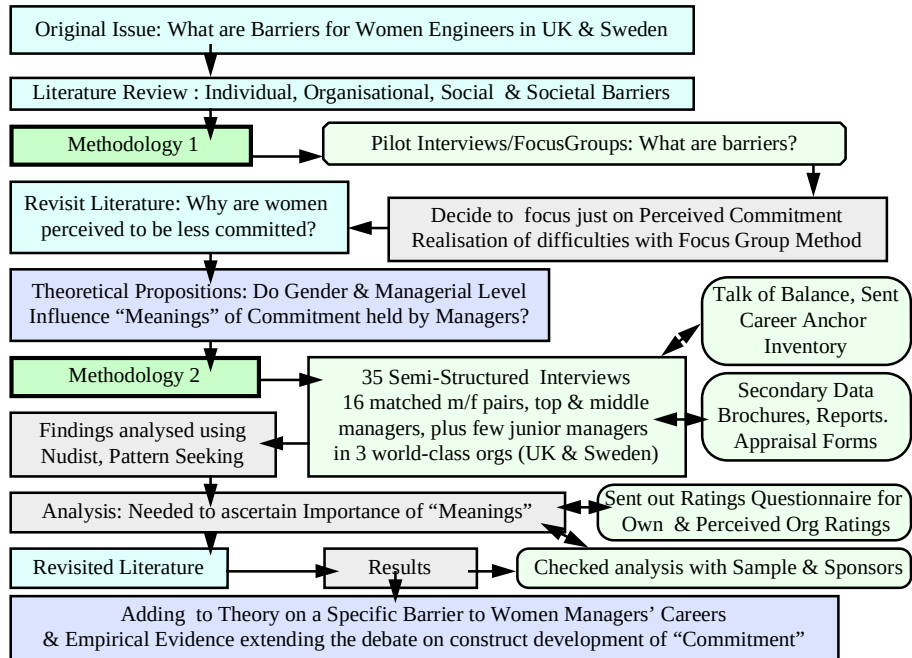
The answers to these questions may start to indicate some answers as to why men's commitment is seen as the norm, whilst that of women managers is challenged.

## 1.7 THE INTERPRETIVE APPROACH

As commitment is such an abstract construct, concerned with values, attitudes and behaviour, it was felt that it would be difficult to ascertain engineers' meanings by questionnaire, and therefore a qualitative approach was taken to elicit meanings and perceptions of commitment. The ontological position is realist – the study attempts to surface engineers' meanings of commitment by constructed conversations with an informed researcher. It is held that these semi-structured conversations and the subsequent analysis present a view of reality, not necessarily the truth (Tsoukas, 1989; Silverman, 1993).

## 1.8 THE PROJECT PROCESS

Figure 1.1 maps out the progress of the project. A successful application was made to the Open University Crowther Fund. Following an initial approach investigating the barriers to women managers in engineering organisations, a pilot study was undertaken in both the UK and Sweden, using interviews and focus groups. From the pilot study, it became clear that commitment was a major issue, and hence that became the focus of the PhD. It also was apparent that focus groups were not appropriate for capturing conversations in two languages – there was a lot of switching from Swedish to English and back again. It was decided to introduce more structure into the design. Eventually 35 full interviews with managers were held, approximately half in each country, and a further two short interviews in Sweden. It will be noticed that in some parts of the study, the 35 were used, and in other parts, the 37 responses were taken into account to capture these two very senior engineers' views. It was not possible to match females to those two males. After the semi-structured interviews, the sample were sent questionnaires about their career anchors, and about their ratings of importance of the elicited meanings. This meant that their responses would have been the result of heightened awareness of the concept of commitment and the context of the study. They validated the initial analysis, and later were sent copies of the publications emerging from the project, initially two Cranfield Working Papers, and later, two blind refereed journal articles forthcoming in *Personnel Review* and *Gender, Work & Organization*. Meetings were held with the project sponsors at the end of the project to check out the findings. See Figure 1.1.

**Figure 1.1 The PhD Project Process****THE PhD PROJECT PROCESS**

## 1.9 THE CONTRIBUTION OF THIS STUDY

1. In trying to ascertain what commitment really means to managers, to uncover explanations for women's perceived lesser commitment, the study has made a contribution to the commitment construct development literature by revisiting the usefulness of the traditional measures of commitment in management practice in the late 1990s. It shows that continuance commitment (the desire to stay in an organisation), which was such an important component of "organisational commitment" as conceptualised some 25 years ago by Mowday, Steers and Porter (1979), is not mentioned as part of "commitment" by almost 90% of the engineers in this sample, when asked unprompted for their meaning of this concept. The term "commitment" as used now by managers in engineering companies is moving away from the traditional construct definition.
2. The study contributes to the commitment meanings literature by identifying senior, middle and junior managers' meanings, which have not been found in the literature. Bailyn (1993), who had undertaken several studies of US male and female engineers, talked anecdotally about individuals having definitions of commitment which did not match those of their managers, and this study builds on that work. Previous commitment meanings research has presented employees' meanings, not those of managers. The behavioural evidence reported by managers in this study is very different from the findings of the employees' meanings research. Senior managers in this present study focus on taking on challenge and finding solutions, for example, in contrast to previous research on employees' meanings, which included being punctual and not going off too often to have a cigarette. In addition, this study shows the impact of gender and managerial level on managerial meanings of commitment in engineering companies. It indicates that top managers have a set of very active meanings, which are shared more by the males overall than by the females. If top managers are said to be the bearers of the organisation's values, then males overall are sharing organisational meanings and having a better individual/organisational fit than the females.
3. A contribution is made to the recently started commitment assessment literature which at present consists of quantitative studies of correlates and outcomes of managerial perceptions of commitment. This study identifies some key dimensions of the commitment assessment process, particularly its tacit nature, and subjectivity, which leads some managers to use impression management techniques.
4. It also provides evidence of the meaning and assessment of "commitment" from significant players in the real field, rather than evidence from MBA students using simulation exercises as in some research in this area (eg Allen Russell & Rush, 1994). The study provides an up-to-date view from leading

engineers, including all the top women engineers in three world-renowned engineering companies as to their meaning of commitment. The insight from these engineers has led to very rich data, contributing with the rigorous, computer-assisted qualitative analysis, to the quality of the study.

5. The results contribute to the more general debate about women in management being seen to be less committed than male peers, with evidence from subjects in two different countries, the UK and Sweden. The identification of the importance of visibility in meanings of commitment, and the gender differences in the Virtuous, Volunteer, Virtuoso and Vanguard meanings present a framework which may explain why women's commitment is perceived as less than that of men. The gender-different strategies for influencing the assessment of commitment provide a further explanation of the lesser visibility of women's commitment.
6. The results should help managers and younger engineers, particularly women, in clarifying what commitment means, and how it is signalled and assessed. Then, when commitment is evaluated for whatever reason (annual performance reviews, challenging assignments, promotions, career development, and in terms of professional commitment, for chartered status, the issue is open and mutually understood by those concerned, rather than a "gut feel" assessment presumed by managers to be shared in the organisation.

## 1.10 SUMMARY OF THESIS CHAPTERS

The thesis is presented in eight chapters, with chapters 5-7 containing the empirical results. **Chapter 1** introduces the research issue, with a postscript indicating the researcher's personal journey through the process. This thesis encompasses two large fields of research, women in management, and commitment, which together with the two-country study, has led to a larger than usual literature review. However, the author considers it essential that the research be firmly anchored in the existing literature of both these fields. This stance is justified, because the research outcomes have led to a contribution to both fields. The literature review is therefore presented in two chapters, the second of which is focused on commitment itself.

**Chapter 2** introduces the context for this study, starting with a review of the women in engineering and management literature, and leading into the related field of work/nonwork conflict and spillover, with its new emphasis on balance. This is followed by the career anchor literature, where work/life balance is one of the key anchors for this study. Next is an overview of engineering careers and the engineering profession in the UK and Sweden, followed by a brief review of the British and Swedish management culture.



**Chapter 3** presents the literature review on the construct of commitment and its assessment. This starts with the concept of meaning, and goes on to review the conceptualisation of commitment in the literature, and the meanings of commitment literature. This is followed by a review of the commitment aspects of the psychological contract, and previous work on gender differences in commitment when measured in the traditional way. The second part of this chapter is concerned with the literature on the process of signalling and assessment of commitment.

The argument for the research questions follows. A gap is found in that previous research has not examined managers' meanings of commitment, nor the impact of gender on the meanings and assessment of commitment.

**Chapter 4** describes the Methodology of the project. It starts with an argument for the philosophical perspective adopted (realist) in relation to this sensitive research question. A rationale is made for individual case studies, and the choice of data collection methods is discussed, resulting in a decision for an inductive approach for the main part of the study, and a two-country study, despite the complexities introduced by this design. The preliminary fieldwork using interviews and focus groups is described, indicating how the analysis led to the focus of the PhD on the possibility of gendered meanings of commitment, and a decision not to use focus groups for the main study, due to the difficulties of coping in two languages and controlling the conversation without losing richness in the responses.

An open mind was kept about the need for quantitative as well as qualitative data. Sampling of the matched male and female manager pairs is described, and there is an overview of the three data collection sites, one in the UK and two in Sweden. An account given of how the interview schedule was used, together with a diagram of the commitment signalling process which served as a tool to lead into a discussion on the sensitive area of gender stereotyping in assessment. This is followed by a detailed account of the analysis process, for which the computer software package, QSR NUD\*IST was used. This allowed structured management and analysis of the large volume of data accumulated. There was indeed a need for some quantitative input from the interviewees after the meetings, and two postal questionnaires were sent separately to validate the initial findings. Issues of bias in the methodology are then reviewed.

**Chapter 5** reports the unprompted Meanings of Commitment from the interviewees, through the identification of role models of commitment, and then discussion about the evidence of high commitment. It reviews the most frequent meanings given (task delivery, involvement, put yourself out, and quality), and puts them into context with the top managers' meanings (be proactive/use

initiative; ready for challenge; creativity/innovation; and added value/business/customer awareness). There were gender differences and managerial level differences in meaning, and a matrix with axes of high and low visibility, and organisational/individual orientation was developed indicating four types of commitment meanings: Virtuous, Volunteer, Virtuoso and Vanguard, where women tended to have meanings in the first two categories, whilst top men and women's meanings were in the Vanguard quadrant. Men overall had more Vanguard meanings, which were in alignment with those of top managers. The differences from what was expected from the literature indicated a shift in meanings away from the focus on continuance commitment to a very active, highly visible kind of commitment, not just based on affect for the organisation but also for the individual self, seeking a balanced work/nonwork lifestyle, and concern for others at work.

**Chapter 6** reviews what the interviewees said about their Terms of Commitment. From managers' ratings of the meanings given in Chapter 5, this chapter identifies their views of the importance which their organisations would put on those meanings, in the context of their own ratings of importance. Tensions are identified over certain meanings: hours over the norm, enjoying work, getting balance, thinking of oneself, and having concern for people at work. The responses to the career anchor inventory are discussed, through the motivations they uncover, as they impact the commitment exchange relationship which these managers have with their employer. The chapter goes on to report the ways in which the interviewees dealt with the tensions, through accepting or negotiating with their employer and/or their family on the terms of commitment. This facilitates the understanding of the basis on which the managers' meanings of commitment elicited in Chapter 1 were established and accepted or adjusted in their own cases. This is likely to impact the way in which the managers interpret and assess the commitment of their subordinates and will reinforce, through justification for their actions, their original meanings of commitment.

**Chapter 7** investigates the process of Assessment of Commitment, looking at the responses to the signalling diagram shown to respondents as a means of opening up discussion of gender-related issues. A number of comments were very revealing about prevailing attitudes to women managers, indicating both change and continuity in male and female attitudes. The nature of commitment appraisal is discussed, using performance appraisal forms as secondary data, highlighting the subjectivity of assessment, and the tacit nature of the process. Through an investigation of the perceived role of the manager, evidence is drawn of the use of upwards influence tactics, or impression management, in almost half of the cases. Interestingly, there were gender differences in the tactics used, the males using direct tactics related to "selling themselves" and ensuring the delivery of the manager's own goals, whilst the females tried to build closer work

relationships with their managers. The chapter concludes with a review of respondents' comments on the outcome of assessment, which confirmed the importance of being rated "highly committed", as when coupled with the necessary competence, this would lead to more career opportunities and development.

**Chapter 8** presents a summary of the Findings, and the Conclusions, in relation to the original research questions, and the underlying theoretical considerations. It discusses how potential bias has been dealt with, and acknowledges the limitations of the study.

The contribution to knowledge is evaluated. The thesis has contributed evidence which adds to the debate on the construct of "commitment". There is evidence of change in the meanings, reflecting today's work environment for managers. Sets of meanings have been identified which differ by gender and managerial level of those who gave them.

The work adds to the women in management field, by clarifying the process whereby women may be perceived to be less committed than men, and by providing a plausible explanation, that women have a different balance in the components of their meanings, which are less visible than those of men. A contribution is also made to the impression management literature, through the findings revealing the use of gender-different upwards influence tactics by successful women and men. There is evidence from top engineers in leading British and Swedish companies, including the leading women engineer directors, contributing to a better understanding of the commitment issue in the two countries. The chapter reviews the contribution to practice, for women engineers and their managers to understand the gender differences, and the impact of choices about commitment and balance. This chapter suggests the development of a new tool to help engineering managers to assess commitment, in their terms rather than those of the Organisational Commitment Questionnaire, and recommends areas of further research.

## 1.11 POSTSCRIPT TO CHAPTER ONE

### ***THE ORIGINS OF THE STUDY – A PERSONAL JOURNEY***

This study started after personal experiences led to a question which never seemed to get resolved. Why, despite equal education, similar early career patterns, and increased social support for mothers, were there so few women managers approaching the tops of companies, particularly in engineering companies. It could be argued that with the right background, degrees, training, technical skills, competences and ambition, women would be just as well placed in the promotion tournaments as their male counterparts. But they were not there.

The personal experiences occurred over a long period. Firstly, there was a long period as a non-working “company wife” in several international companies where my husband was employed, in the UK, Sweden and Norway. There was a symbiotic but informal relationship between the employer and myself. The Norwegian company benefited from my support to my husband and children whilst they sent him around the world at short notice, and rewarded me with invitations and support to act as hostess on behalf of the company. I had the benefit of meeting interesting people, travel with my husband and children, and a feeling of “belonging” to a wider extension of the company. However, if I had had my own career at that time, I would not have been able to contribute as an unpaid, but “committed” supporting wife, nor would my husband have been able to give the kind of commitment which he gave these companies. In the 1970s and 1980s, these companies were gender segregated both hierarchically and horizontally – women were not to be found at the top, or even the middle, and they were clustered in support roles such as secretaries and draftswomen.

Later, I took a Technology foundation year at university, where I noticed how the women on the course (about 20% of the class) were the ones to take the notes in practical work, to organise what was needed, to tidy up afterwards. The male students naturally took charge, some protective of the females, others aggressive and dismissive when the females did or said something wrong. Why were the women (including myself) behaving like this – organising, tidying, taking the secondary role whilst the men did the action, despite the women achieving high grades in assignments and examinations? Thinking about these questions led to my transferring to Sociology, to gain a better understanding of the situation, both of the women in engineering, and of myself. As I grew more interested in research methodology, I decided I wanted to undertake a PhD to explore these issues. I took a Women's Studies option in my BSc to learn about the sociological structures and processes which impact women in management, and particularly women managers in engineering companies. I then became a female manager in

a male-dominated technical university, and could apply some of the learning from the social science degree course to my own experience as a woman manager.

My research started by looking at the barriers to women managers in engineering companies. The project fitted well with a line of Women in Management doctoral research projects being undertaken at Cranfield School of Management. Dr Jane Sturges (1997) had researched female and male telecommunications managers' conceptions of career success, finding that women were much less motivated than men by the extrinsic rewards of high positions, such as power, high salary, car and fringe benefits, and much more by intrinsic factors such as having interesting work and good relationships. This clearly had implications for their further career choices. Dr Bronwen Rees (1997) had studied the reasons for women's collusion in their own subordination, through an exploration of competence, gender and identity. She found that a key factor was the lack of awareness by women of the processes through which their subjectivity is socially constructed. Dr Hilary Harris (1997) explored the barriers for women managers in getting selected for international postings, identifying perceived lack of experience or technical qualifications, and family constraints as the main factors. Dr Isabelle Cames (1998) researched the management styles of female and male managers in different nationality banks, finding that the successful women managers had very high instrumental traits, leading to a task-oriented style, and that both male and female managers perceived such traits to be pre-requisites for a successful career, rather than the expressive traits of a people-oriented management style. These Cranfield theses highlighted some of the factors which were impacting the advancement of women to senior management positions.

As these Women in Management doctoral studies finished, their results informed me as I progressed along the PhD path in the same broad area. I started asking men and women engineers about the barriers for women. As by now, my husband was an engineering professor, I came into frequent social contact with engineers and engineering students from all over the world, and I took every opportunity to find out what the situation was in the various countries. I found that male engineers talked frequently about women having equal competence but not as much commitment as men. Women said they were extremely committed, and that this was demonstrated by their remaining in the profession, despite difficulties in the male dominated workplace.

These preliminary enquiries anchored my search, and helped me focus onto one particular perceived barrier to women managers' career success – the male managerial perceptions of their “commitment”, whatever that might mean. I approached the subject almost with a 360° experience of the issue:

- \* as a research student in organisational behaviour;
- \* as a woman manager in a male dominated organisation;

- \* as a woman manager with family commitments myself, and studying for a part-time PhD.
- \* as a woman manager with team members to appraise;
- \* as a manager whose team members had family commitments;
- \* having a role model in my own manager/doctoral supervisor who was then Dean of Faculty, coping with a high level of responsibility and a large family;
- \* as an ex-non-working wife contributing unseen to my husband's commitment to his employer;
- \* as an expatriate wife experiencing different work and social cultures;
- \* as a friend of senior engineers and of engineering students and faculty, both male and female, in the UK, Scandinavia and worldwide;
- \* as an ex-engineering student at university level;
- \* as a mother seeing the girlfriends of my sons start their engineering careers and wondering what was in store for them, and whether things would be different by then.

Clearly, these personal experiences would impact the undertaking of the research project. They provided an initial understanding of the issue, and facilitated access to major organisations. Taking an interpretive perspective, I have been able to get very close to the meanings which these managers hold, and have been able to validate the analysis by going back to them for confirmation. This is not an objective account seeking to measure men and women's commitment excluding as many factors as possible. It is my informed interpretation of these managers' views, facilitated by my background, and substantiated in the rigorous and structured approach (using QSR NUD\*IST4) to the analysis and reporting of the data. In an Organisational Behaviour field where qualitative studies are rare, this study provides a rich picture of what commitment means and how it is assessed in three world-class companies, and sheds some light on why female managers' commitment is perceived to be less than that of male managers.

## CHAPTER TWO - THE LITERATURE REVIEW

### PART 1 – WOMEN ENGINEERS' CAREERS

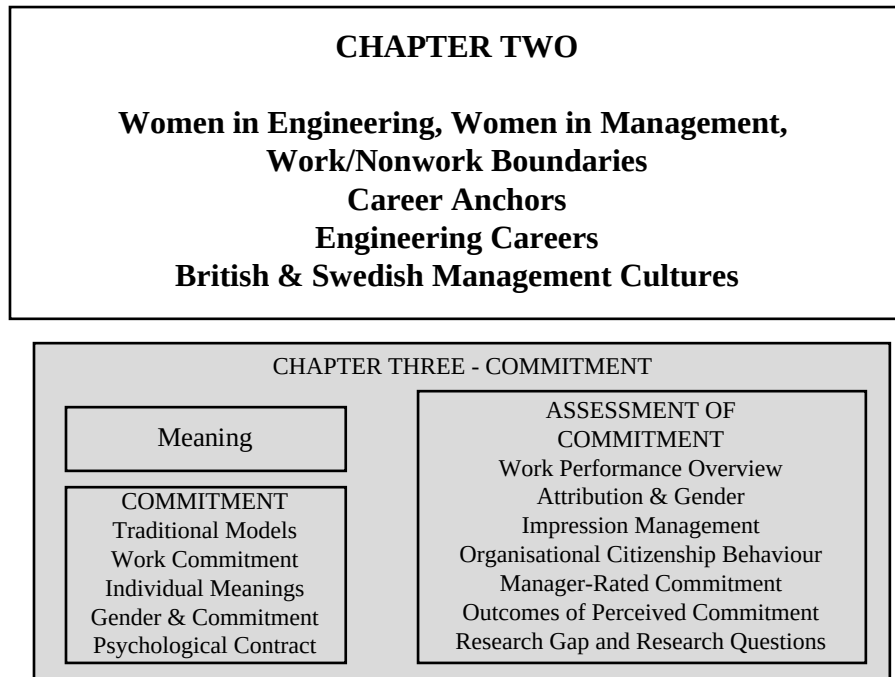


**Figure 2.1 The Literature Review – Part 1**

### 2.1 INTRODUCTION TO CHAPTER TWO

This chapter forms the first part of the literature review for this investigation into why women managers, particularly in engineering, are often seen to be less committed than their male peers, through examining what commitment means to male and female managers, and how commitment is assessed. Figure 2.1 indicates the map of the review.

In Section 2.2, the women in engineering management literature is reviewed, in context with other work in the women-in-management field in the UK and Sweden. Some of this is closely related to the assessment of commitment literature, as women in engineering management have their commitment assessed in male-dominated organisations, or social structures in which career and work systems are presumed to be objective and gender-neutral. Next, in Section 2.3, the research on work/nonwork life balance is addressed, as the issue is important in relation to managerial perceptions of women's commitment when there are external commitments which may be seen as competing for time and energy. This issue in the past has been a problem for women in management, but it is increasingly part of normal working life for men as well, not

just for those in dual career relationships with children or without children, but also for any manager who wants a balanced life even if single.

The literature on career anchors follows in Section 2.4, because the career anchor inventory was used as supporting evidence of the importance of work/nonwork balance in the sample.

Section 2.5 gives some background on engineering careers in the UK and Sweden. The next section, Section 2.6, reviews the literature on British and Swedish management, including the “high performance – high commitment” model, as the setting within which this study is situated. It also indicates the cultural differences in the national profiles of the two countries.

Chapter Three will give an in-depth review of the commitment literature, starting with its conceptualisation, and moving on to review the small body of literature on the meanings of commitment. The few studies measuring women's commitment are described, and then the commitment formation process is reviewed in the literature on the psychological contract. The second half of Chapter Three deals with the assessment of commitment, its measurement and gender stereotyping. Next, a review is given of the evidence used for assessment, and the way in which organisational citizenship behaviours can be used to impress managers of commitment. Chapter Three ends with an overview of the literatures covered, and presents the research gap and research questions.

However, in Chapter Two, first the context of the study should be explained and situated in the women in engineering management field, together with an overview of engineering careers and the British and Swedish management cultures in which the study takes place.



## **2.2 WOMEN IN ENGINEERING MANAGEMENT**

### **2.2.1 Introduction**

This thesis is considering why women managers are perceived to be less committed than men, particularly in engineering companies. Many models and partial explanations of barriers to women's careers have been reported in the literature. Many of them relate to perceptions of women's commitment, and are likely to inform any explanation which can be attributed to possible gendered meanings of commitment and the commitment assessment process. Therefore, a review of the literature on women in management, and women engineers is needed, with particular reference to the UK and Sweden. However, before going further, it is useful first to review the underlying career structures literature, to gain an understanding of the complexity of women's lives.

### **2.2.2 Career Structures of Women in Management**

Women's lives are complex when they have to combine work and family responsibilities, which change as they go through the different stages of their working lives. Larwood & Gutek (1987) saw women's careers as a "network or tree of possible alternatives", whilst Hall (1984) described women's careers as a double helix with a warp and weft representing career and family sub-identities, the career strand growing thicker as career importance grows, set in relation to lifespan development stages. Rapoport & Rapoport (1980) suggested a triple helix, entwined with occupation, family and leisure strands, life transitions occurring at the intersections. Powell & Mainiero (1992) criticised the male models of careers as lifestages (Levinson, 1978), and described women's career as a river, with the banks representing work and life, and the career current flowing nearer the respective banks at different life stages, sometimes fast-flowing, sometimes slow. Another model of lifespan career development proposed by Sonnenfelt & Kotter (1982) identified three strands in a person's life, the work space, the personal space and the non-work/family space, separate but influencing each other, running through time from childhood through youth, early career and present career in management. These models help to illustrate some of the dimensions of working women's lives.

### **2.2.3 The Tournament Career Structure Model**

Three other models from career theory are helpful for this thesis set within the context of engineering careers for both men and women. Schein's (1978) model of careers transformed the traditional hierarchical pyramid to a cone with a central core of influence, so that at any given level, progress could still be made towards the centre even if hierarchically, the progress had plateaued. Another helpful model is that of Gunz (1989). Using UK engineering careers as the context, Gunz proposed a climbing frame model of career opportunities, so that

the path was not linear, as routes were often blocked. Sideways steps would allow diversity of experience which in the long run would be beneficial.

The most useful model for this study (because of its use of *labelling* as a key factor) is Rosenbaum's career tournament system, incorporating the individual career trajectory shaped by inherited traits and experiences, with the organisation's structural features, shaped by internal labour markets and politics.

"This model posits that organization career systems operate like a tournament in which individuals' histories of "wins" and "losses" define their future career opportunities, their incentives, and the organization investments they receive" (Rosenbaum, 1989, p.330).

Rosenbaum reported that employees who had functional experience were seen as more able than those with staff positions. These experiences acted as implicit signals of attainment, and the inferences seemed to be widely spread amongst the managers in his sample of promotion committee members. Career velocity was another signal, tied to age and providing another cross-selection comparison factor. Thus, when it was difficult to distinguish from CVs between candidates for promotion, the already successful (on these criteria of age and experience) were viewed as winners of past competitions, and hence as more able, and more worthy of investment, as runners for the highest posts. Losing had permanent effects, due to lower investment by the company and a "loser" identity label, whilst winning was only temporary, until the next tournament round.

The tournament model is particularly likely in large, well-established organisations where there are varying career options and "stable interpretations of the meaning of individuals' job histories in the firm". Rosenbaum also identified two types of status: *job status* which confers rewards; and *ability status*, which is contingent on reaffirmation of continued victories in the tournament. In the tournament model, the critical period is that which the organisation allows before assigning negative labels to employees and ceasing to develop them through challenging tasks. If women engineering managers are labelled as less-committed, even if in the job status they do well, then their chance of coming through to the next round in the tournament is reduced. Similarly, if age is seen as an indicator of velocity of career, women (and men) who have taken parental leave other than the absolute minimum, may be labelled as slower achievers rather than as changing to a later cohort on re-entry.

#### **2.2.4 Equal Opportunities for Women Engineers**

Mainstreaming of equal opportunities is a key priority of the EC, and special actions are being taken to promote the representation of women in research and technology (EC, 1999). Equal opportunities, or rather equivalence for individuals and parity for women as a whole, as Cockburn (1991) describes it, is a major concern for most women at the outset of their careers and as they go up the management ladder. The UK's 1970 legislation driven by the EC came into effect

in 1975 (Davidson & Cooper, 1993). Hakim (1996) presented an argument that women's individual choices leads them to particular and individual career paths, with no particular equity failure. An alternative approach is given by Liff & Ward (1998) who says that even accepting Hakim's view of women's choices, there is sufficient evidence to indicate that opportunities are not equal for men and women, and that many equal opportunities measures deal with problems defined in the present organisational context so that minorities have to find a way to fit with existing career structures. A managing diversity approach would allow for a deconstruction of the existing structures, engaging in culture change, for example, to help everyone achieve their full potential to mutual advantage.

### **2.2.5 The Glass Ceiling and Barriers to Promotion**

Very few women engineers are breaking through the so called "glass ceiling", defined as an "apparent barrier to advancement to the highest level of an organisation" according to Morrison, White & Van Velsor (1987). Mainiero [1994a&b] interviewed executive women to see what common features could be identified in terms of their early career development.. The women felt that they had been put through a political and skills testing experience, resulting in "being anointed" or "politically seasoned" into the inner circle, but this followed an earlier period of demonstrating exceptional hard work, initiative and innovative thinking. Mainiero identified five hurdles:

- i) getting assigned to a high visibility project
- ii) demonstrating critical skills for effective job performance
- iii) attracting top level support (though few of the women in this study had mentors)
- iv) displaying entrepreneurial initiative
- v) accurately identifying what the company values.

Mainiero's advice would very relevant to high-flying women engineers. However, the breaking through the glass ceiling was at a cost to many of her sample's private lives as a consequence of their high-profile careers. Liff (1998) asked British bank managers for their views of barriers to success. They stressed the need to increase visibility, and to make an impact through exceptional performance. A recent US study by Ragins, Townsend & Mattis (1998) of Fortune 1000 female company directors identified similar strategies:

- i) exceed performance expectations
- ii) develop a style with which male managers are comfortable
- iii) seek out challenging or difficult assignments
- iv) have influential mentors.

Ragins et al's other important finding was the difference between perceptions of the barriers faced by women, where the women directors stated that the corporate culture was the biggest barrier, whilst 82% of their CEOs cited the

women's lack of line experience and 64% that there had not been enough women in the pipeline up to now.

### **2.2.6 The Glass Ceiling for UK Women Engineers**

Devine (1991) found that "once women have children, they are no longer perceived by managers as being wholly committed to their job and having potential, even if they have performed well in their current position". Webster (1995) said that project team leaders were rarely women, but where they were women, they were childless women. Evetts (1993, 1994a&b) reported that the 11 non-managers in her study of 15 British high tech women engineers (aged between 26 and 44), believed that building a reputation as a competent engineer was the best career facilitator, together with avoiding management so that current personal responsibilities could be met. For the four managers (all with husbands or partners, three child-free and one with a teenager), it was to be single-minded and ignore the fact that they were women. In their company, middle management positions were achieved through invitation, so the promotion system was much harder for women to negotiate. Some of the women were aiming for the newly instigated technical specialist ladder, as promotion there could be achieved on the basis of presenting past achievements, and it was widely considered to be more appropriate for those with family commitments because there were more predictable hours. But there was already some view that this ladder was not going up to senior management, thereby offering an immediate solution which might turn into a trap for women later in their career. As well as the structural barriers of the internal labour market, and the higher-valued masculine management style with its individualistic and competitive attitudes, Evetts (1998) saw the conception of the "good manager" as a key part of the problem. This was tied to demonstrating commitment, through working long and uncertain hours, and accepting the need to be mobile both temporarily and longer-term.

Evetts suggested that the choice of the women with children in moving towards the highly specialist role would be reproducing a hidden, still gendered system. Similarly, the women who "managed" their identity to fit in with the dominant management culture, and who had broken through the barriers, were reproducing the male-gendered model of career success. Nonetheless, despite the requirement of a single-minded focus on career for promotion to chief and head of function positions, Evetts (1997) acknowledged that in this particular company, some women were achieving promotion.

### **2.2.7 Gender Political Relations**

Previous research indicates that gender political relations are a key barrier to women's careers (eg Mainiero, 1994a&b; Ragins, 1989; Kvande & Rasmussen, 1991). Kvande & Rasmussen have mapped the gendered political relations processes shown in Figure 2.2. Stereotyping by society influences women engineers as well as their male peers. The individual woman and her career are

strongly influenced by her own personal characteristics, background, and potential, and these have been shaped by societal influences such as education and socialisation experiences, especially gendered role expectations. The influences mapped in Figure 2.2 affect the woman engineer throughout her working life. Her organisational interaction with the male gendered career system is impacted by market forces. Women engineers get access to higher level jobs when there is a market need, as happened in Sweden during the 2nd World War (Berner, 1992). Technological changes, such as computer modelling and robotics, have an impact on the organisational structure of work and the workplace for women engineers. Career systems are influenced by the organisational culture, heavily male-dominated in engineering; and by the organisational structure, for instance, formal communications and the openness of the mechanisms for filling senior positions. Male managerial perceptions of women's commitment may reflect male rather than gender-neutral norms about commitment at work.

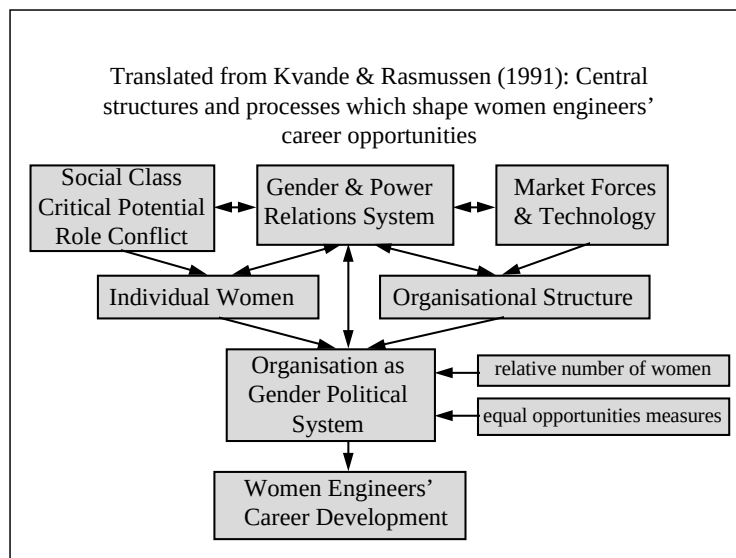


**Figure 2.2 Kvande & Rasmussen's Model (1991)**

Kvande & Rasmussen's research into women engineers' relationships took place in Norway in six organisations employing at least ten women engineers. These peer relationships created a stressful environment for the women, because of the competitive power/gender balance in the organisations. The men in these Norwegian organisations were typed as:

- **Cavaliers** (who were often mentors, ahead of the women in hierarchical terms, more comfortable with a father/son than a father/daughter relationship, but not directly anti-women at this stage of their career);
- **Competitors** (who saw the women as direct threats, reducing the men's chances for the few top slots);

- **Comrades** (early career fellow workers who would accept that some women would become managers just like some of the men); and
- **Comets** (rising stars who would not be bothered by successful women colleagues because they were sure of their own ability to rise anyway).

Kvande & Rasmussen's key finding was that the "*gubbeveldet*" or "old boy" network (described as a many-headed troll!) still excluded women engineers from senior management. Such exclusionary practices (or "social closure" [Witz, 1990, Devine, 1992]) is not necessarily only excluding women, but may also exclude others not deemed to be acceptable to the group, as professionals tend to form strong collective occupational communities. Bourdieu (1988, p.279) described the "habitus" in science and engineering, characterised by indeterminacy and technicity, as "a system of shared social dispositions and cognitive structures, which generate perceptions, appreciations and actions". Atkinson & Delamont (1990) proposed that the exclusion of women from senior technical management may be "due not to their lack of the technical skills necessary for their jobs, but to their perceived failure to behave in ways which reveal their mastery of the indeterminate: that is, their failure to share the habitus" (p.107). This seems to be a useful expression of the organisational culture as underpinned by exclusionary professional power.

Ragins (1989, p.51) defined power as "influence by one person over others, stemming from a position in an organization, from an interpersonal relationship, or from an individual characteristic", requiring analysis at several levels: social systems, organizational, interpersonal relationships, and individual. In organisations, power is potentially present in all relationships, and involves control over material resources and authoritative resources. People may be coerced into doing something against their will; they may be conditioned to want to do it; or they may be denied something without ever being aware that they want it - the agenda is controlled. Lukes broke that power down into overt decisions and non-decisions, "the passive acceptance of established institutional power in which potential issues never reach the political arena" [Lukes, 1974]. The issue of women's need to incorporate their identity and commitments into male dominated work life is seen as an individual problem relating to their gender differences, rather than an organisational issue of structure and culture. Women have agency and could challenge, as individuals or collectively, the power of the mostly male institutions of engineering management but may be socially conditioned to accept the status quo, both within and outside the workplace.

As an example of the hidden power in organisations to control access of women to senior management, in a study of women in banking, Liff (1998) reported that although the organisation had introduced family friendly practices, the women aspiring to management received informal messages from their mostly male management that taking advantage of these policies would present them as

implausible candidates for promotion. They therefore used self-censorship to avoid the negative image. Thus, the issue which they wanted to go on the agenda never was even voiced by the career-motivated women. They made their choices and lived with them.

Reskin (1978) said that women have been socialised into gender-typical behaviour before choosing their career, so that they found it difficult to enter the male-founded collegial organisation. Reskin & Ross (1992) reported that women managers with the same human capital as men were not achieving similar levels of power - they were getting the right job titles but without as much tangible authority and rewards. Women engineers, even if they excel technically, may be excluded from higher management by institutional power vested in the male hierarchy. Like Atkinson & Delamont (1990), Causer & Jones (1996) also found that women engineers would have problems in full participation in a collegial group. This is made more difficult because the men across the vertical hierarchy share a common set of assumptions about the role of women in work and domestic situations - it is not just at managerial level that such assumptions are made. Causer & Jones also found that line managers in such organisations have control over the reward system, making women engineers with family responsibilities particularly vulnerable to their supervisor's personal power when seeking flexible work arrangements, for example, career breaks or part-time work. However, there is still the question of agency, which enables women engineers to challenge the power base in these engineering organisations - which might succeed if the playing field were level.

Women with mentors do better, because the mentors provide reflected power, feedback, resources and access to the power structure (Noe, 1988; Ragins, 1989; Turban & Dougherty, 1994). The mentoring relationship can provide training in corporate politics, and access to information sources which might not be otherwise available, but women use networking differently to men, according to Ibarra (1992, 1995). She reported two network mechanisms that reinforce women's subordinate position in organisations: a tendency for people to form same-sex network links, (homophily); and male "ability to convert individual advantages and positional resources into network advantages". Horgan [1989] described how difficult it was for women to learn how to operate within the organisation when there were so few role models to be observed. Women could learn from men, but might pick up gender-inappropriate behaviour. Women could learn from their own mistakes, but this might cost them promotion. Where women and men were evaluated differently for displaying the same behaviour, women were at a considerable disadvantage in male-dominated professions such as engineering. Feedback also plays an important role in the learning process, but it should be remembered that male managers are also limited by the paucity of experience of dealing with successful women.

### 2.2.8 Women Engineers as Token and Pioneer Women

Women entering male-dominated organisations as professionals face problems in being more visible than their male colleagues, but that visibility could also be a key factor later on. Kanter (1977/1993) said that women managers with experience of being token women were likely to succeed, once they had got sufficiently high in the organisation, as that visibility enhanced their chances of promotion to top management. But token women could also act like “queen bees” and side with the male power base rather than support junior women, as that might show evidence of their own gender weakness. Gale & Cartwright (1995) found that women construction engineers sometimes preferred to be lone females for the advantages of the visibility that came with it, fearful of competition from more women coming into the same firm.

Wahl (1992) said that women engineers in Sweden were used as organisational symbols of equality in action. They were sometimes given token roles, being given the seat next to the guest of honour at a dinner, like a “prize”, or as Asplund (1988) said, “a company geisha”. But they had advantages too: they could ask for help more easily than men, and were given more explanations, as assumptions were made that they needed clearer instructions and guidance. According to Brewer & Miller (1984), looking at the issue from a cultural studies perspective:

“because tokens are often the first of their kind to enter a group and represent a culture different from that of the (numerically) dominant group, people tend to respond to them in terms of group membership rather than personal identity”.

This may mean that organisational pioneer women engineers have an impact on the careers of the women engineers who follow behind them, by being the token for that social group. Hood & Koberg (1994) studied the adaptation by tokens into the dominant culture, finding two elements of adaptation:

- *acculturation*, which “changes the non-dominant individual's or group's cultural patterns and behaviours to those of a dominant group or society....it requires individuals to take on and learn the culture of the dominant group”.
- *assimilation*, full acceptance by the dominant group and assimilation into the social clubs and institutions.

Hood & Koberg suggested that women managers have been acculturated but not yet totally assimilated into management. The glass ceiling is not there because of women's lesser suitability for management, but rather what is lacking is “the willingness of the corporate tribe to accept women as equal members of the group”, the practice of social closure (Witz, 1990).

### 2.2.9 Male-Female Management Style Differences

Previous research indicates few significant differences in male and female management styles, although women could be seen to have a more democratic, transformational style of management than the directive, transactional style of



men (Rosener, 1990; Eagly & Johnson, 1990; Alimo-Metcalfe, 1994; Rowe & Snizek, 1995). Wajcman (1996) reported that the similarities far outweighed the differences. She found little evidence that women had less commitment or different motivation to work than men, but there was a small difference in terms of concern for financial rewards, women being less instrumentally motivated. Women were less concerned about pushing themselves forward than men, and did not have the same taste for organisational politics.

Schein (1973) had reported that “Think Manager, Think Male” was a strongly held belief of both male and female managers, with typically male characteristics being seen necessary for career success. Schein, Mueller, Lituchi & Liu (1992, 1996) reported a global survey updating the earlier study, finding that there was still strong male managerial sex-stereotyping in the US, the UK, Germany, China and Japan by males and by females other than in the US, where females saw males and females as equally likely to possess the characteristics required for success. Vinnicombe & Cames (1998) reported cracks in Schein’s “Think Manager, Think Male” scenario in their study of male and female managers in different nationality banks in Luxembourg. They found that male middle managers saw their superiors as having a masculine or sex-undifferentiated style, whilst they saw successful managers as having androgynous styles. Females on the other hand saw themselves and their superiors as androgynous, and the successful manager as masculine. This indicates a change in the definition of managerial style at middle levels towards an androgynous style. Wahl (1995, 1998) described androgynous leadership as built on the notion that people can have both male and female qualities and certain combinations of these can be of advantage to leadership.

#### **2.2.10 Assessment, Promotion and Stereotyping**

Alimo-Metcalfe (1994) and Rubin (1997) commented on how gendered assessment systems might discriminate against women, particularly when women were applying for out-of-role jobs such as management positions, when the assessors were most likely to be male. Alimo-Metcalfe (1995) argued that the more complex assessment processes actually might be increasing gender bias effects, which become more difficult to challenge. In Rubin’s study, male managers admitted to preferring to recruit males like themselves, and expressed biases against those who were different, such as men with long hair and earrings, and women who were pregnant, or aggressive. Interviewers acknowledged that when women commented on features in the recruitment literature to do with work/life balance, this was seen as negative, and incompatible with the 100% commitment required by the corporate environment, resulting in failure to obtain a job offer. Heilman (1983) found that men’s success was attributed internally, to their skill and ability, whilst women’s success was often attributed externally, particularly to luck, and that managerial job requirements favoured male rather than female attributes leading to perceived lack of fit with the job for women.

Rubin felt that equal opportunities training of personnel managers was too focused on appearing to be fair, rather than on gaining an understanding of the underlying reasons for lack of entry and progress of certain groups.

Kirchmeyer (1998) said as long as others tended to make inaccurate predictions about women's commitments and believed that women lacked the requisite traits for management, "women's success determinants will probably differ from men's." The mostly US-based organisational commitment research literature indicates that women are more likely to be perceived to be less committed than men (Allen, Russell & Rush, 1994), because of residual stereotypical attitudes towards women in society. In addition, people with perceived lower commitment will not be offered as much career development (Shore, Barksdale & Shore, 1995).

A 1992 report on US women engineers by Catalyst, the US consultancy company, said that women engineers were promoted only on demonstration of ability, whilst men engineers were promoted on their potential. They found that there was still paternalism about sending women engineers on difficult assignments. One of the keys to promotion was visibility, and that was best achieved by being assigned to a high profile project. The advice to women engineers was that unless they had a high placed male champion, success would be difficult, and so mentoring was seen as an important facilitator to career success. In a study of UK male and female senior telecoms managers, Vinnicombe, Singh & Sturges (forthcoming) found that males were more instrumental than females in setting up and managing their networks, and also noted the importance of visibility, gained through senior mentors. Dickens (1997) suggested that men might be better players at the game of impressing those who mattered, as they had more opportunities for informal visibility to senior management. This thesis's findings will present evidence on the use of impression management strategies, and the literature on that is reviewed in Chapter Three.

A survey of ten major UK companies to ascertain engineering employers' recruitment, retention and progression policies and practices for women engineers, found that engineering managers were very resistant to change, especially line managers, with their key role in selection and promotion (Devine, 1991, 1992). The Fellowship of Engineering (1989) also identified the line managers as a problem, and said that the key to women engineers' managerial success would be education to change attitudes right through the company. Discrimination at recruitment interviews still takes place. A quarter of Devine's women engineer respondents felt they were asked intrusive questions, such as questions relating to their partner's job, their future plans for having children, child care provision, and their ability to travel and be mobile. Males were not asked

such questions Devine (1992). Devine found that British male engineering managers preferred to promote men because "men were technically more competent than women, and that women had childcare responsibilities which undermined their career commitment." A top manager reported: "Any top manager is thinking, well, is she going to go in a couple of years' time and have a baby". Despite the possibilities of pregnancy, this is an uneconomic use of a valuable resource - a trained woman engineer. Her potential to improve the pool of talent is not developed, and the organisation is the poorer for it.

#### **2.2.11 Career Development Opportunities**

Research on women managers' careers by Ohlott, Ruderman & McCauley (1994) has indicated that whilst women were increasingly getting into managerial positions, their positions were differing in terms of criticality, visibility and breadth of responsibilities, and the degree to which they interacted externally to the organisation. Women may not get equal opportunities for on-the-job development and job challenge. Denying women access to the more developmental experiences meant that they might be perceived to be less qualified than men and unable to compete in the next round – the Rosenbaum tournament model described above.

Women managers are sometimes given high visibility posts providing important role models for younger women, but often lacking the power associated with a male incumbent (Asplund, 1988, Kanter, 1977). Highly visible posts were also risky, as if they failed, it would be damning not just for them and their supervisors, but also for future women managers. Sometimes managers assumed that women would not want certain kinds of challenges, with the best of intentions to protect women from "difficult" postings, but not giving them even a chance to consider the advantages. As professional engineers grow by on-the-job training, job rotation and job challenge as well as by formal training (Lam, 1996; Lee & Smith, 1992; Davies & Easterby-Smith, 1984), gradually acquiring a portfolio of key experiences for later top positions, it is important that women engineers gain equal access to opportunities for development.

#### **2.2.12 Women Engineering Managers and Career Breaks**

Career breaks for women are seen as a problem by employers, who often make little attempt to provide solutions. Yet when there was national service, there was no such problem for men employees, who usually were able to return to their career at the same level as before (Hinton, 1983). Robinson & McIlwee (1991) reported that men and women engineers' career continuity patterns in the US were in fact very similar, with women taking few career breaks, and Kvande & Rasmussen (1991) found the same in Norway. Yet on promotion considerations, their male superiors were viewing these women as potential absentees over much of their working life. The UK Engineering Council (1985) proposed formal

career breaks for women engineers as early as 1985, yet this is still seen as a problem by women in the field fifteen years later.

Women do take career breaks in Sweden, but this can be difficult in the engineering industry because of the need to keep up to date with new technology, especially computer-based changes. Whilst women's career breaks were viewed negatively by Swedish employers according to Wahl (1992), the compulsory military refresher courses for all men up to the age of 50 were seen as character-building, positive experiences. Swedish women at work generally have many benefits that are only recommendations in other European countries. Expanded social benefits and available childcare led most Swedish women into work even when they had small children, but since 1982, the rate of women in full-time work has increased. Sundström (1996) explains that women in Sweden have had a long history of working part-time with rather long hours, but with full social benefits. As children reach the age 7-16, women part-timers tend to return to work full-time.

In contrast to UK women receiving four months' paid maternity leave, from 1974, Swedish maternity/paternity benefits gave new parents six months paid leave to share between them, and from 1979, those parents with children under 8 could reduce their weekly hours to 75% of their normal working week. Parental leave for new babies and adoptions is now 18 months, with 80% of earnings for 12 months, and then a flat daily rate (£6), with a statutory right to a similar position on return, or part-time work if desired (EIRR, 1995). All employees were also given a right to study leave for vocational and university training. Women's economic dependency has been reduced by these state moves, not only whilst they are in work, but they are earning their pensions as well, in contrast to part-time workers in the UK, for instance. Nonetheless, according to Day & Colwill (1995), "Swedish men tend to have more highly paid and prestigious jobs than their wives, and women are therefore more likely to be the ones who take part-time work and long absences from the workplace".

### **2.2.13 Women in Engineering Management in Sweden**

The European Business Survey of SMEs (Crew Report, 1996) shows that, other than in the public sector, Sweden had the second lowest number of women in management in Europe. There were no women managers in 64% of Swedish companies, compared to the UK which had the highest number of women in management in Europe, and only 37% of UK companies with no women managers. The EBS survey found these results surprising, given the "highest overall labour market participation of women and 'enlightened' legislation" of the Scandinavian countries.

As this study uses a sample with half its members from Sweden, it is important that a review is made of Wahl's (1992) work. She studied 400 Swedish women,

half MBAs and half graduate engineers, though only 6% were mechanical engineers, mostly in their mid-thirties to mid-forties. Wahl found that Swedish women engineers took a holistic view of career success, seeking to combine both work and family. They wanted recognition, independent working and interesting technical tasks, and some had turned down hierarchical positions. Only 37% of the women in Wahl's study define career as hierarchical success, 20% saw it as personal development, and 21% saw it as a combination of the two. When they were asked about how they were personally experiencing their careers, most reported only the positive aspects of being women managers. Wahl was not sure whether women engineers really had a high tolerance level to discrimination at work and career subordination at home, suppressing their discontent, or whether they genuinely had a goal of success in terms of combining career and family. Over 80% of these women had children, and Swedish women saw themselves as successful if they managed to balance career and family even if their own career expectations were not met in full. Wahl described this as the "career-gap" between expectations and achievements.

#### **2.2.14 Conclusion – A Challenge for the Future**

Lawrence & Spybey (1986, p.128) blamed the continuing lack of gender equality in Sweden, as in the UK, on the industrial society for separating work and home. They said: "The lesson from Sweden is that even the most determined of reformers in the most enlightened societies cannot easily change ingrained patterns". This section has reviewed the British, Swedish, Norwegian and US literature on women engineers, bringing in the women in management literature as that is relevant for the women in this sample. It is not just a question of career choice of engineering, but of how women in engineering management function in terms of their commitment at work, to organisation, to career, to themselves, and to their families. To manage all that, many of them say they need to achieve and maintain work/nonwork balance, and that is the subject of the next section.

## 2.3 WORK/NONWORK BOUNDARIES

### 2.3.1 Do “Commitments” have to Conflict?

In the preliminary fieldwork for this research project, one of the respondents commented that she thought commitment could grow as needed, much in the way as love for one child does not diminish love for a second or third, whilst others, particularly males, thought commitment was finite, because of its links to time and energy. Dickens (1997) said that commitment was often viewed as finite. The work/family literature provides a theoretical underpinning of this issue. Marks (1977) discussed two models which are relevant here. The *scarcity* model views human energy as finite, where competing demands from the multiple roles exhaust the available store of energy in a given time period, usually a day, after which the reserves are replenished for the next working cycle. In contrast, the *expansion* model takes the view that human energy may be expanded through multiple roles, and may even replenish used energy by providing additional and differing stimuli and, in the case of family roles, sympathy and support. In the scarcity model, organisations are seen as “greedy”, demanding all of the individual's commitment, where previously fathers, but now also career women who are mothers, are expected to fulfil their quota of energy and time to the organisation first, expending only any residual amount amongst secondary commitments, including the family. As the total demands exceed the amount of energy and time available, compromises have to be made. However, Marks found that the empirical evidence did not fully support this model. Often, those who were highly committed in one life domain were highly committed in the others.

The expansion model, based on Durkheim (1953) was an “energy expansion theory of activity and group life rather than a spending or a drain theory” (p.296). Marks said that people construct their response to multiple demands, deciding what to commit to, and what to ignore, and that this process is culturally bound. For instance, the concept of available time for individual leisure may be important in a Western culture, but may not be understood in a culture where time was more like a daily round of necessary activities for community and survival. Marks' view was that commitments could be expanded indefinitely **“within the scope of our own ongoing activities and the role partners we encounter within them”** (p.929). He stated that where there are more demands, the over-committed person will “seek to contract their involvement in those activity-clusters to which they are under-committed”, by limiting, delegating and decreasing those activities. He supported the common conclusion of work/family conflict studies, whether from the scarcity or the expansion perspective – that role strain, overload and role conflict are highest for those who are most involved, and most oriented to success at work.

### **2.3.2 Conflict of Competing Work and Nonwork (usually Family) Roles**

A view of commitment is that it is closely related to human energy and time, particularly when seen in the context of working women with families, but applicable to anyone with multiple roles. Work-family conflict is defined as “a form of inter-role conflict in which the pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus & Beutell, 1985). There are time based conflicts, consistent with excessive work time and role overload, and mental pressure may also be felt in one role whilst one is physically trying to meet the demands of another, for example, thinking of work issues whilst caring for the children in the evenings. Lack of control over the work schedule is a key factor for role conflict, as is the age and number of dependent children. Another set of conflicts are to do with strain, leading to stress and fatigue, which have an impact on both work and family roles. Greenhaus & Beutell commented that work demands were clear and the penalties were obvious, whilst family demands were seen as the woman's responsibility, and the family penalties were not so immediate.

Randall (1987) argued that the higher the organisational commitment, the harder it was for individuals to give family commitment, with negative personal consequences. However, Romzek (1989) found the more committed the individual, the higher was the level of nonwork satisfaction reported, together with a feeling of high involvement with their work lives. She speculated that this may be due to a pre-disposition to develop positive psychological attachments to nonwork life, career and work. Kirchmeyer (1993, 1995) reported that nonwork involvement of men and women (not just family but also community, sports etc) did not have a negative effect, but contributed to a higher level of work commitment, challenging common assumptions about the negative impact of nonwork-to-work “spillover”.

### **2.3.3 Dual Career Couples**

As indicated in Section 1.3 on the changing commitment context, there are increasing pressures on individuals during the 1990s to contribute more time to their employers (Sparrow, 1998). A result of this pressure is that managers with family responsibilities set boundaries between work and nonwork, as a coping mechanism. Whilst this has been a pressure for female managers for a long time, because they did not have a wife at home to take care of things (and house-husbands were uncommon), it is a more recent phenomenon for male managers to have working wives and to have to share in family responsibilities. Thomas & Dunkerley (1999, p.165) drew attention to this phenomenon in middle managers post-downsizing, stating that they found “frequent references to understanding wives and trade-offs, negotiations and compromises over time spent with the family”.

Work is still mostly organised as if those working outside the home are men or single women, and the social expectation is that women will have the major responsibility for the home and children, as well as other obligations, even when the woman has a full-time demanding job herself (Kirchmeyer, 1995; Davidson & Cooper, 1992). Women are expected to follow their husbands wherever his job demands. But now that career-motivated women are also facing job mobility, there is a mirror problem – many husbands would be surprised to be asked to give up their jobs to move so that the wives could take a promotion (Kanter, 1977). According to Schein (1992), many young professional women would choose career over family.

The classic study on dual career issues is by Rapoport & Rapoport (1969), who described the personal difficulties of going against the family norms. Some organisations offer a 'Mommy Track' for women who need a career but have to negotiate reduced hours etc, and a straight career track for those without children. However, Schein commented that this has been seen as negative by some feminists, as it is the women who have to do the adjusting, rather than the organisation of work for business convenience that needs to be adjusted.

#### **2.3.4 Individual Strategies for dealing with Work/Nonwork Conflict**

Evetts (1993, 1994a&b, 1995) researched how 15 UK women engineers in the aerospace industry coped with careers and family, finding that current expectations of engineering managers for long and irregular hours and working off-site caused problems for women with families. Their coping strategies were to opt out whilst childcare was a problem, but then they fell behind their male peers.

In a study of nonwork-to-work spillover, Kirchmeyer used Hall's (1972) classification of strategies for dealing with the problems. Davidson & Cooper (1992) also suggested this classification. These strategies were grouped under:

- \* **“structural role redefinition** (a proactive attempt to deal with the objective reality of one's roles by reducing the role demands and changing others' expectations),
- \* **personal role redefinition** (a more defensive approach where conflicts are reduced through changing one's personal attitudes and behaviours), and
- \* **reactive role behaviour** (where no attempt was made to address conflict, but rather, the individual strives to improve his or her ability to satisfy all demands)” (Kirchmeyer, 1993, p.533).

Gordon & Whelan (1998) found that whilst younger women attempted to meet both career and family needs, through becoming “superwomen”, midcareer women realised that they could not be superwomen, and so they set boundaries and limits, carefully weighing priorities, making trade-offs, eliminating non-essential activities, giving commitment to themselves, redefining success and committing to personal time. They often had sufficient finance to make



appropriate arrangements to deal with work/nonwork conflict. They confronted political realities, and sought ways to overcome obstacles, including leaving organisations. At the same time as the mid-career men were realising that they may have sacrificed irretrievable family life for their career, the women were seeking to develop a balance which allowed for acknowledgement of the interdependency and quality of their whole lives.

### **2.3.5 Organisational Policies for Boundary Control**

Getting balance between professional and personal life is one of the five internal career success variables, according to Derr & Laurent (1989). They were surprised that over a quarter of their managerial sample had this orientation, and suggested that those high flyers may have had to disguise that orientation from their employers. Certainly some employers are still trying to control the boundary between work and nonwork lives, according to Perlow (1998) in a study of high tech managers (knowledge workers) in the US. The company was controlling commitment through enforcement of strong identification with the organisation. Long hours were being used as evidence of commitment and productivity. The evidence is similar to that of Kunda (1992), who found commitment being used as a control system in a large engineering company. Perlow found that although the company was seen as leading edge in terms of family friendly awareness, control was achieved by imposing demands for extra hours and controlling vacations; by monitoring employees individually; and by managerial modelling of desired behaviours. Those who complied were rewarded. Perlow's research examined how boundary control was managed, how employees responded, and how their spouses responded. Perlow found groups of acceptors and resisters to boundary control. Acceptors' behaviours were similar to Kirchmeyer's category of reactive role behaviours, always trying to meet organisational demands. Some resisters made themselves unavailable at certain times, when they had (in their view) more important demands to meet. However, according to Perlow, "resistance, especially when motivated by a need to meet family obligations, hinders employees' recognition and promotability" (p.346). Similarly, amongst spouses, there were acceptor spouses and resister spouses. Perlow drew up four groups, which he labelled "careerist", "compromiser", "juggler" and "rejector". All careerists were male, and the juggler was female. Her view was that the number of careerists would inevitably decline as more married women (without "accepting" husbands) seek advancement, and more people seek balance in their lives, going elsewhere for work if they did not find it possible in their present organisation. So the usefulness of this organisational controlling of the work/nonwork boundaries through excessive demands for commitment was likely to decline as well. Perlow felt that the way the organisation had tackled the problem of work/family conflict at the individual level, providing family friendly policies, had ignored the organisational level issues, which were still a problem, despite the good intentions of the employer. Dickens (1997) talked about the low

take up of family friendly initiatives by women and men in the UK, concerned about the impact on their careers if they took advantage of these. However, there is another way for organisations to manage this, as the next section shows.

### **2.3.6 Organisational Flexibility Policies**

Scandura & Lankau (1997) confirmed that women with children who perceived that their organisations were offering flexibility were more committed and had higher job satisfaction. Bailyn (1993) suggested a new career model for technical professionals, the “Discontinuous Career”, allowing for periods of high and lower involvement. Organisations would “accept the low involvement phases without considering them as evidence of low commitment by the employee to his or her work and organisation, and would not penalise such an employee in terms of career progress”. Managers would “shift their emphasis from personally controlling employees to holding them accountable for results, based on trust”. This would be a real shift, “breaking the mold”, as Bailyn calls it.

Burke & Davidson (1994) suggested seven costs which businesses incur when not acknowledging the contribution which women and men can make, and not organising working life so that the contribution can be made by all. These were:

1. Not mobilising your best people to the top
2. Not maintaining quality at every level for both men and women
3. Treating a large proportion of the organisation as “dead weight”
4. Limiting the contribution women can make
5. Undervaluing promising people who wish to have both work and family roles
6. Not being an employer of choice
7. Not capitalising on what could be an enormous opportunity.

This is similar to the recommendations of Friedman, Christensen & DeGroot (1998), who felt that organisations would gain considerable advantage, through managers actively enabling employees to have a work-life balance. By treating work and personal life as complementary rather than competing priorities, managers could leverage this to add value to the business, through greater involvement of workers, leading to improved work processes, and a holistic use of the individual resources once the work/family or work/community conflicts had been removed.

Following on from looking at work/nonwork balance, the thesis now moves on to examine the work on career anchors, important in this study because many of the sample had lifestyle career anchors, indicating that they sought balance in their lives.

## 2.4 CAREER ANCHORS

### 2.4.1 Definition of the Career Anchor

An important influence on the psychological contract is likely to be the individual's career anchor, as it influences the choices made by individuals. According to Schein (1990, p.1), "the career anchor "is a combination of perceived areas of competence, motives and values that you would not give up: it represents your true self". The anchor is developed in the early career through the learning and socialisation period, as motivations and needs gradually shape an orientation to life. Once established, the self-concept, or "career anchor" steers the individual's career, so that choices are made within the framework of that anchor (Schein, 1978). From longitudinal studies of MBA alumni over decades, in the late 1970s, he identified five anchors, later adding a further three (Schein, 1990).

#### ORIGINAL FIVE ANCHORS

- \* technical/functional competence (TF)
- \* general managerial competence (GM)
- \* autonomy/independence (AU)
- \* security/stability (SE)
- \* entrepreneurial creativity (EC)

#### LATER THREE ANCHORS

- \* service/dedication to a cause (SV)
- \* pure challenge (CH)
- \* lifestyle (LS)

The career anchor is identified through the self-report Career Anchor Inventory with 40 questions, which may be followed by a structured but depth interview. The inventory is said to measure the motivation and career values.

#### **2.4.2 Updating the Career Anchor in the 1990s and beyond**

In 1996, Schein revisited the career anchor concept, following a period of major global economic turbulence, as organisations downsized, 'rightsized', re-engineered and changed the nature of jobs and work relationships. He had found in his earlier studies that there were consistent results: 25% had GM, 25% had TF, 10% had AU, 10% had SE, the remaining 30% spread across the other four anchors. For management students, still only about 25% had GM, and even amongst middle and senior managers, the GM anchor seldom went over 50% of the population. However, Schein thought that the anchor spread was changing in the 1990s, and his recent comments are included on the anchors which are relevant for this study of graduate engineers, most of whom are now in their 30s and 40s.

#### **2.4.3 Technical/Functional Competence (TF)**

TF-anchored people are thought to gain most satisfaction from knowing they are experts in their field. They usually prefer to remain in specialist roles, but will take on management roles where that can be combined with the exercise of their technical competence. They seek technically challenging work, but once committed to an organisation, they seek autonomy in how the challenge is dealt with, and resources to do the job to the technical requirements which they consider essential. They want to be paid well for their technical expertise and seek external pay equity. Many engineering organisations have dual managerial/specialist ladders to provide advancement for technical experts. Individuals with TF anchors seek recognition from their peers, rather than from the uninformed. They maintain technical competence by attending conferences, participating in professional activities and specialist training. Schein thought that TF anchors would face concerns about updating their competences in a rapidly changing technological environment, and hence there was an issue over who would take responsibility for the necessary learning, the individual, or the employer as a knowledge-based organisation in alliance with learning institutions.

#### **2.4.4 General Managerial Competence (GM)**

GM-anchored managers see specialist roles as a trap. They seek advancement with high salary, increasing responsibility, and opportunity to contribute to organisational success. They enjoy the execution of leadership, and need emotional competence. The GM-anchors have a mix of competences, in contrast to the TF-anchors who have deep competence in their specialist area. Schein said that GM-anchors would identify their own success with the organisation's success, and seek high levels of pay in relation to subordinates, as this would enhance their identification with the company's success. They view promotion as

reward for high performance and results, and measure their success by salary, job title, number of subordinates and budget size, as well as the external trappings of success such as cars and other benefits. They need frequent promotions for stimulation. The more ambitious GMs ascertain the typical career position route to the top, and ensure that they match with the right breadth of experience in the various functions. A key motivator is the approval of their superiors, in contrast to the TFs, who seek the approval of their professional peers. If GMs do not get the appropriate responses from their organisations, they move. Schein considered that those with a GM anchor, who were seeking power, glory and responsibility, would in future be competing for those rewards with people lower down the hierarchy than at present, as teams and project managers took on more managerial responsibility.

#### **2.4.5 Autonomy/Independence (AU)**

This group have an overriding urge to do things in their own way, and do not want to be bound by rules and managers. Very often, they will gravitate towards professionally autonomous careers, such as the legal profession, whilst in organisations, they seek roles in which they are not subject to tight control, where they have tightly defined goals which they are left free to deliver. They prefer merit pay, and promotion where it brings more autonomy. They are motivated by awards such as prizes and commendations rather than titles and money.

#### **2.4.6 Security/Stability (SE)**

The SE anchored managers seek security, choosing predictable jobs. They show loyalty, and enjoy the identification with their organisations. Where their talents are unused, they often seek to use them outside in their community. They are motivated by longer term benefits packages, and prefer a seniority-based promotion system.

#### **2.4.7 Entrepreneurial Creativity (EC)**

This EC group seeks to create businesses and services, getting bored easily. As employees, they seek entrepreneurial roles. They want ownership, seeking wealth and visibility as recognition of their creative venture success.

#### **2.4.8 Service/Dedication to a Cause (SV)**

Many with the SV anchor seek to help others, valuing jobs such as nursing, teaching and the ministry where they can work with people, serving humanity. They want work which is in alignment with their values, where they would be able to make a difference. They want fair pay, and promotions which allow them more autonomy to carry on their mission at a higher level. They seek recognition from peers and superiors, and the more ambitious often move into consulting.

#### **2.4.9 Pure Challenge (CH)**

People who have CH anchors seek challenge about everything else, above money, status and security. They love to test themselves with ever more difficult

problems. These issues are not confined to technical challenge – managerial challenges suit the CH anchored person as well. They are highly motivated, and often seek general managerial posts because of the greater challenges to overcome. On the other hand, they can be single minded and difficult to manage if challenge is no longer there. Schein (1996) felt that this group, who sought to overcome challenge, who enjoyed solving problems and winning, was growing in number, but he was not sure whether people were starting off with this anchor, or adapting to the increasingly challenging world.

#### **2.4.10 Lifestyle Anchors (LS)**

The final anchor, LS, relates to those who are seeking meaningful careers in the context of a balanced and integrated total lifestyle. This is achieved through flexibility at work and at home, and such anchored people seek work in organisations with appropriate attitudes to work and family, for instance, through paternity leave and flexible working hours schemes. Schein found the anchor initially in female MBAs, but later found it in male MBAs as well. Once employment has been found in organisations with congruent attitudes and flexible systems, a key problem is over geographical mobility, where the individuals may refuse to move unless more flexible organisational arrangements can be made. Recently, Schein (1996a) had noticed a change in the MBA and executive students, where up to 50% now had LS as their anchor. Many of these were in dual career families, and this was happening at a time when there was a shift towards preoccupation for self and for a balanced life style. Alban-Metcalfe (1984) had commented on this trend in a UK study of careers.

#### **2.4.11 The Career Anchor and the Psychological Contract**

Understanding their career anchor enables individuals to select appropriate career paths, as organisations, and the jobs within them change ever more frequently than before. Schein's view is that more junior people would need to acquire the GM kinds of skills of leadership and co-ordination. Technical people would need to both update their skills and acquire managerial skills. Learning at both the individual and the organisational level will become increasingly important. Schein says:

“Organizational culture will be acquired by self-socialisation, observation, mentoring and coaching. Career pathing and career development will become a more negotiated process between the individual and members of project teams rather than a corporate centralised activity.” (1996, p.88)

#### **2.4.12 Career Anchors and Engineers**

A study on career anchors and MIS (Management Information Systems) employees is relevant to this research (Igbaria, Greenhaus & Parasuraman, 1991). Igbaria et al investigated the relative frequency of the anchors, the correlations with backgrounds and types of jobs held, and the job and career satisfaction of those whose anchor “matched” their current job. They expected most MIS employees to be either technical or managerially oriented. Sixty-eight

per cent of the sample were married, 80% were male, and just over half of the sample held masters degrees. Igbaria et al identified the career anchors for each individual, but also aggregated the anchors to gain an overview of the MIS population studied. The results indicated strong managerial and technical anchors, as predicted. However, the percentages for men and women are interesting, particularly the low number of males with life-style anchors, only 8%, and even when combined with the women, only 10.5% compared with the 50% found by Schein (1996) in some 1990s MBA samples. Igbaria et al found that the managers had clustered around GM anchors, whilst the TF anchored people were clustered in systems programming and software engineering. They anticipated a greater number of LS anchored employees in the future.

The chapter now moves on to cover some of the literature on engineering careers and the engineering profession in the UK and Sweden.

## **2.5 BRITISH & SWEDISH ENGINEERING CAREERS**

### **2.5.1 Background on Aerospace Careers**

Graduate engineers in the aerospace industry represent the best of the technical talent available, and they further their careers with on-the-job development, learning by job challenge, and external secondments as well as by technical and management courses, building up competence and experience portfolios. The product development cycle is relatively long, the products are extremely complex and leading edge research is undertaken for replacement of the products several decades ahead. As the products have to be certified for commercial use, quality issues are paramount, but as the market for the products is global, there has to be awareness of customer needs and future business trends as well as excellence in engineering and research. Considerable investment has been made by these companies to make the most of their human capital, and they demand competence and commitment in return, highlighted in their brochures. Many firms now see recruitment of new engineering graduates as a long-term key investment in key employees (Bosworth & Wilson, 1991). According to the director of the WISE Campaign (“Women into Science and Engineering”, run by the Engineering Council and Opportunity 2000), it costs between £20,000-£40,000 to train an engineer (Barthorpe, 1995).

“Engineer” is defined as “persons employed in technical work for which the normal qualification is a degree in science, mathematics or engineering” (McRae et al, 1991). “Engineering” is “the profession of applying scientific principles to the design, construction and maintenance of engines, cars, machines etc” (Collins, 1986). Another definition of engineering in the context of this study is that given by Hill (1991), “The set of activities by which technology is applied, and if necessary acquired, to define a product which meets the perceived requirements of a customer within constraints of cost and timescale”. The classic study of engineers by Ritti (1971) gave the major dimensions of engineering work as utilisation of technical skills, the theoretical content of the work, the importance to business, the individual responsibility, the visibility of the individual contribution and the uncertainty of objectives”.

### **2.5.2 Sweden: Professional Engineer Status**

The five year “civil engineer” masters degree from the prestigious Swedish technical universities provides automatic professional engineer status, giving the title Civ.Ing, equivalent to the British C.Eng. (Note that “civil” in this context means “non-military”, and includes all branches of engineering.) The universities are the KTH (the Royal Technical University) Stockholm, Chalmers Technical University at Gothenburg, and the universities of Luleå, Lund and Linköping. The Swedish engineers in this study almost all had their masters degrees from these five universities. Lawrence (1986) provides a good description of engineering and



management in Sweden. The Swedish Engineering Academy has a Continuing Professional Development scheme for engineers to commit to life-long learning, assisted by the professional societies such as the Civilingenjörssförening, whilst the employers are to provide an environment which facilitates such learning (Ingenjörsvetenskapsakademien, 1993).

### **2.5.3 UK: Professional Chartering and Commitment Evaluation**

In the UK, an engineering degree allows the individual to take up an engineering career, but does not provide automatic chartered status as the Swedish Civ.Eng degree does. Following some years of practical experience, degree-holding engineers may seek professional chartered status, but not all do so. However, professional registration is an integral part of career development for ambitious British engineers, and many employers insist on chartered status as a pre-requisite for making an employment offer.

Although the assessment of commitment is of relevance to women in managerial and technical careers generally, this topic is currently of particular importance in high technology engineering. The UK Engineering Council has a Royal Charter to maintain a register of professional engineers through the various engineering institutions, and to ensure that professional standards of competence are developed and met. In 1995, it proposed that chartering of graduate engineers (membership of a professional engineering institution, which is granted according to a formal code of practice and quality standards) should include an evaluation of their commitment by senior peers, to be instigated in 1999, and this is about to be implemented (Engineering Council, 1995, 1997/98). Individuals will have to provide evidence that they are demonstrating their commitment to maintaining professional competence through self-managed CPD (continued professional development), working within the professional codes, as well as supporting the development of others, for example through mentoring within their company. The engineering institutions, such as the Institution of Mechanical Engineers, have to work with employers to promote and facilitate CPD for professional engineers. See Figure 2.3.

**Figure 2.3 Engineering Council's Definition of Commitment**

|                                                                      |                                                                                                                                  |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>ENGINEERING COUNCIL – DEFINITION OF COMMITMENT TO BE ASSESSED</b> |                                                                                                                                  |
| *                                                                    | Demonstration of commitment to maintaining professional competence through self-managed CPD (continued professional development) |
| *                                                                    | Working within the professional codes                                                                                            |
| *                                                                    | Supporting the development of others, for example through mentoring within their company.                                        |

Whilst the UK Engineering Council has its criteria for the assessment of commitment of engineers, and whilst their meaning is more oriented to

professional than general commitment, it is likely that some managers will use their own meaning of commitment when assessing subordinates, rather than checking back. If there are gendered meanings of commitment, this has implications for women engineers, who will usually be assessed by male managers, when their commitment is evaluated for chartered status or promotion. This could be another hidden barrier for women to break through, if they want to reach senior management.

#### **2.5.4 Small Numbers entering the Engineering Profession**

Any evaluation of possible explanations (such as perceived lesser commitment) for the small numbers of women engineers reaching top positions has to take into account the fact that few women actually enter engineering careers. As the British Prime Minister, Tony Blair, commented, “only a small proportion – 24% - of engineering graduates go into British industry on graduation. This is a huge waste of talent” (Blair, 1996). The figures for women are even lower - in some years (for example 1991), less than ten per cent of British female engineering graduates have gone into engineering jobs (HMSO, 1994), and so the population available to rise to management level is still very small. The British Labour Force Survey (Sly et al, 1998) shows the total population of engineers and technologists in the professional occupations group as 580,000, of whom 26,000 are female (4.5%). Of British engineering masters students graduating in 1994, 15% were women, across all branches of engineering (HESA, 1995). However, of all British bachelor degree graduates, only 19% of males and 3% of females took degrees in engineering (HESA, 1995). A report on Engineers in Top Management (Barry, Bosworth & Wilson, 1997) suggested that if the women could be persuaded to take engineering degrees in similar numbers to the men, then a further 2,300 women would be added to the pool of graduate engineers entering manufacturing. They say “Easy arithmetic but extremely difficult to achieve in practice” (p.89).

Statistics Sweden (1995) report that 13% of mechanical engineering masters students graduating in 1995 were female, nearly doubling the 1985/6 figure of 7%, so there is a slow progression from an extremely low base in Sweden as in the UK. This is not just an issue for Europe. Even in the USA, the newest available figures for Autumn 1998 engineering undergraduate admissions show 20% females, but in mechanical engineering, only 13% were women, the lowest of all the specialist areas of engineering (Engineering Workforce Commission, 1999).

#### **2.5.5 Managerial Levels in Engineering**

As well as the question of gender impacting perceptions of commitment, it is possible that managerial level may also have an effect on meanings and perceptions of commitment. Organisational structures have five basic parts: a four-part administrative hierarchy over the fifth, the core operators who do the

basic work, according to Mintzberg (1979). Within that hierarchy, managers at the top of the organisation perform strategic tasks, whilst middle management comprises three groups of staff: middle-line managers, “technostructure” analysts and support staff. Whilst Mintzberg’s middle-line management chain runs from senior managers just below top level right down to shop foremen, this study is concerned those at board level, and down through middle management and specialists to professional, graduate engineers at the threshold of management responsibility.

Dalton, Thompson & Price (1977) in their study of engineering careers and performance showed that there were four stages to engineers’ careers: Stage 1: Apprentice (characterised by helping, learning and dependency); Stage 2: Colleague, (independent contributor); Stage 3: Mentor (assuming responsibility for others, training and interfacing with others); and Stage 4: Sponsor (shaping the direction of the organisation, and exercising power). Boundaries are set for this study around those in Dalton et al’s Stages 2, 3 and 4, as those in graduate apprentice positions may not have yet gained an understanding of what commitment really means in their organisational careers. Arnold & Nicholson (1991, p.635), in a study of graduates within their first five years after university, found that “graduates tended to report that their primary commitment was to self rather than company or profession”. Morrow & McElroy (1987) researched the link between work commitment and career stage, finding that career stage defined by age provided stronger relationships with commitment than career stage defined by tenure, and that workers in the later stages of their career were more committed than those in other stages.

Bartlett & Ghoshal (1997) commented on the importance of the role of top managers as “principal architects of a social institution able to capture the energy, commitment and creativity of those within it, by treating them as valued organizational members”. Top managers are therefore included as they may play a strong role in determining the meaning of commitment for the organisation, as custodians of the commitment cultural norms. Those in Stage 3 are responsible for much of the early-to-mid career evaluation of competence and commitment, resulting in career development opportunities for those in Stage 2, the independent contributors.

## **2.6 THE INFLUENCE OF CULTURE**

### **2.6.1 Rationale for the Two Country Study**

This is a study of individual engineers' meanings of commitment. Approximately half the cases have been chosen in Swedish organisations to allow for a contrast of workplace settings, given the higher levels of organisational flexibility, childcare availability and social benefits for women and men engineers in Sweden compared to Britain. The issue of cross-cultural bias inherent in any two-country study is addressed in the Methodology Chapter. Some of the cultural aspects of the study will be briefly discussed in other sections, for example, as part of the development of the psychological contract, particularly Rousseau's work).

### **2.6.2 An Overview of Culture**

Organisational culture is a generic term for a phenomenon which evolves over time, and from a behavioural perspective, it can be said to exist in the minds of the people in organisations as a result of antecedents, behaviours and consequences (Thompson & Luthans, 1990). Culture according to the anthropologist, Geertz (1973:5) can be seen as:

“man suspended in webs of significance he himself has spun; I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning.”

Schein's (1985) model was that culture was based on assumptions which led to values which were manifested in artefacts. Hatch (1993) took that model a stage further by making the model dynamic, and dividing it into objectivist and subjectivist theoretical orientations. Verbeke, Volgering & Hessels (1998) reviewed the different traditions in organisational culture research, as there are several approaches and multi-levels of analysis (Schneider & Reichers, 1983; Joyce & Slocum, 1984; Glick, 1985).

Organisational culture can be viewed from an external perspective where attention is focused on the values of individuals about their organisation, and their interactions within that social setting, where those individuals shape the passive organisation. The external perspective can be related to the interaction between individuals, or the sharing by groups of individuals. The internal perspective focuses on the organisation, treating it as a culture-producing phenomenon, with internal systems (rules, structure, norms, rites, myths, heroes and stories) which actively shape itself (Louis, 1983; Thompson & Luthans, 1990). There may be many subcultures within the organisation, including a dominant culture, all of which are dynamic and changing, as people interact with the organisation.

From an interactionist perspective, people interact with the culture during the development of their individual psychological contract, learning from what goes on, what is allowed, what is normal, what is rewarded and so on, not just from their own interaction but vicariously from observing others. The culture could be seen as a knowledge system through which the individual gets standards for how to behave, and there is also tacit knowledge (Nonaka, 1994). Individual perceptions can be seen as the psychological climate, and where groups of people (with a sound similar experiential basis for the grouping, eg department, function or level) have similar perceptions about the organisational characteristics, the psychological climates can be aggregated, for example, to represent the organisational climate. Thompson & Luthans suggest that individuals carry predispositions that shape their interpretation of the organisation's culture and influence their behaviour. Louis says that "ultimately, one is a participant in a particular culture to the extent that one considers him or herself to be a member" (Louis, 1983 p.49).

As in the psychological contract, there is a zone of tolerance or acceptance within which the relationship continues, and changing an established culture is difficult. For female engineering managers, going up into the higher echelons of the organisation brings them into cultures which are even more male-dominated, so that as well as learning the new "senior management" culture, women have to learn to deal with the male dominated culture as well. As in Guest's psychological contract model (Chapter 3, Figure 3.10), the environmental factors of culture (the organisational level variable) and climate (the individual's perceptions of the culture) are important for managers in their socialisation into the organisation, as they become part of the "commitment" sub-culture (Schneider, 1990).

### **2.6.3 The Engineering Sub-Culture**

As the sample includes both British and Swedish aerospace engineers, the issue of national cultural differences has to be considered. Culture, according to Hofstede (1993) is: "the collective programming of the mind which distinguishes one group or category of people from another". However, there is some argument for saying that in engineering, cross-cultural differences are not as important as in most other occupations. Gerpott, Domsch & Kettler (1988) state that in high tech companies such as those in aerospace, the sense of technological excellence overrides other considerations, engineers across national boundaries being more likely to share the culture of other engineers than fellow-countrymen. They say that "R&D professionals may form a special occupational subculture across countries, because scientific methods and standards are generally valid independently of country boundaries". Nonetheless, it is important to acknowledge the cultural basis of managerial meanings even within a powerful engineering culture.

#### 2.6.4 National Cultural Differences between the UK and Sweden

The largest study of national management cultures was undertaken with 160,000 managers across more than 60 countries by Hofstede (1984). He found four fundamental differences in national style: power distance (the extent to which power inequality is accepted); uncertainty avoidance (the extent to which people feel threatened, and respond by setting up rules); individualism (the relative importance of self as opposed to community identification); and masculinity (the extent to which values of achievement, money, power etc. are more important than nurturing and community). Sweden and Britain had fairly similar cultural profiles other than on the masculinity/femininity index, where Hofstede said that the most visible difference was that the Swedes tended to resolve industrial conflicts by negotiation and the British by strikes. See Table 2.1

**Table 2.1: Differences in National Culture Dimensions, according to Hofstede (1984)**

| Hofstede's indices | Power distance |                    | Uncertainty avoidance |                    | Individualism |                    | Masculinity |                    |
|--------------------|----------------|--------------------|-----------------------|--------------------|---------------|--------------------|-------------|--------------------|
| Countries          | Index          | Position out of 39 | Index                 | Position out of 39 | Index         | Position out of 39 | Index       | Position out of 39 |
| Sweden             | 31             | 34 <sup>th</sup>   | 29                    | 37 <sup>th</sup>   | 71            | 9 <sup>th</sup>    | 5           | 39 <sup>th</sup>   |
| Britain            | 35             | 30 <sup>th</sup>   | 35                    | 34 <sup>th</sup>   | 89            | 3 <sup>rd</sup>    | 66          | 8 <sup>th</sup>    |
| USA for comparison | 40             | 25 <sup>th</sup>   | 46                    | 31 <sup>st</sup>   | 91            | 1 <sup>st</sup>    | 62          | 13 <sup>th</sup>   |

A more recent study of national and corporate culture by Trompenaars & Hampden-Turner (1997) identified that the British and Swedes were equally universalist as opposed to particularist, meaning that they would tend to apply rules. Swedes were somewhat more communitarianist than the British, and were less likely to exhibit emotion at work. Both Swedes and British were specific rather than diffuse, segregating task from individual circumstances. Both Swedes and British recognised people by achievement rather than by background. Attitudes to business time were different, with Swedes having a shorter past horizon and considerably longer-term future horizon than the British. Both countries saw time as sequential rather than cyclical, reflected in their planning systems, promotion systems, and need for punctuality. Trompenaars & Hampden-Turner found that Swedes were less inner-directed than the British, not seeking to control their environment as much as to work in harmony with it.

Another study by Lawrence & Spytbey (1986) with a focus on production managers, found the Swedish managers to be extremely export-conscious, with a high degree of product-mindedness and an enlightened interest in new applications. They were also very structured in their thinking, with ambitions, objectives and strategies to obtain those objectives. Delivery on time was an essential part of working life. The managers were “less aggressive, less

individualistic and less wilful than their colleagues in Britain and Germany” (p.60), and would be less likely to admit to conflicts at work. Another comment was that there was “less interpersonal rivalry, less bucking for promotion at all costs, and less in the way of manoeuvring to advance one’s own interests at the expense of someone else.” There was even a problem mentioned in getting people to accept senior positions because they wanted to maintain a balanced lifestyle. There was a reluctance to work long hours, to do anything in the holiday month of July, and even a lack of enthusiasm for business entertaining because it could be seen as intruding on the manager’s personal life and placing unreasonable demands on the manager’s wife.

### **2.6.5 Employee Relations in Sweden and Britain**

Lawrence & Spytbey (1986) commented on the dominance of engineers in Swedish management, and the high level of qualifications gained by managers. They said that “there is a higher status enjoyed by the technical functions and a greater concern for design and production.” They commented that worker involvement on the board did have its downside in terms of constraints on managers’ decision-making, making it slow, but then the people were carried along with the decision, making implementation smoother. Lawrence & Spytbey’s Swedish interviewees characterised their management style as egalitarian, with ease of communication between manager and worker.

Following decades of Social Democratic government with full employment and a strongly supportive social system safety net, unemployment is now a feature of Swedish working life. Organisations downsize and even relocate if more beneficial arrangements can be made with another county council, or even to another country, in the same way as has been happening in Britain. The IPD Report (1995), using the Cranfield Survey data, indicates that following the economic downturn, Sweden has shifted from its earlier collective management style with high salaries but very low pay differentials negotiated mainly by unions. It has moved towards a high performance, high commitment model, where individuals are rewarded according to performance, in return for interesting jobs with opportunities for taking responsibility and developing their personal competencies.

A detailed analysis of the differences between British and Swedish management was undertaken by Brewster, Lundmark and Holden (1993), reporting the experiences and opinions of expatriate managers in both countries, and putting them into context with the Hofstede dimensions. They identified some key differences in management styles, with Sweden having higher co-operation, more democratic leadership and higher employee involvement, very relevant in this study of commitment. Swedish industrial relations featured stronger union involvement in pay negotiations and organisational change, and Swedish workers felt much more involved than their British counterparts. However, Holden (1996)

stated that although internal information flows in Sweden were more common than in Britain, giving Swedish workers an impression or feeling of involvement, employees were not involved much at the strategic level in either country. Trade unions' power and workforce participation were declining in Britain, whilst in Sweden, workers were increasingly involved in organisational change through union consultations with employers. Holden (1996) reported a shift in Sweden towards less formal models of participation, as well as decentralisation of many HR functions.

#### **2.6.6 The Influence of Culture on the Present Study**

Hofstede (1993) reminded researchers that culture may differ at the national and corporate levels, as well as by gender and occupation. Randall (1993) suggested that Hofstede's model would be useful in the study of organisational commitment across cultures. Doktor, Tung & von Glinow (1991) and Boyacigiller & Adler (1991) recognised that US-generated findings and models were not necessarily transferable across national boundaries and advised theorists to work with researchers in other cultures. Sagie & Elizur (1998) commented that although a concept (such as commitment) may have the same basic component structure across different national and organisational cultures, the balance and strength of the individual components would be likely to differ. By selecting matched male and female engineers, and by staying within major companies in one industry, it is hoped to reduce the level of bias so that the British/Swedish comparison may illuminate the findings by incorporating extremes on the continuum of social and organisational support for workers with family responsibilities.

### **2.7 CONCLUSION TO PART 1 OF LITERATURE REVIEW**

This chapter has provided an understanding of the context within which the study has taken place. Gender, managerial level and national differences will be the three horizontal themes running through the three Findings chapters. The rest of the literature is reviewed in Chapter Three, focused on Commitment, its conceptualisation, its meaning, and its assessment.



## CHAPTER THREE: THE LITERATURE REVIEW – PART 2: COMMITMENT

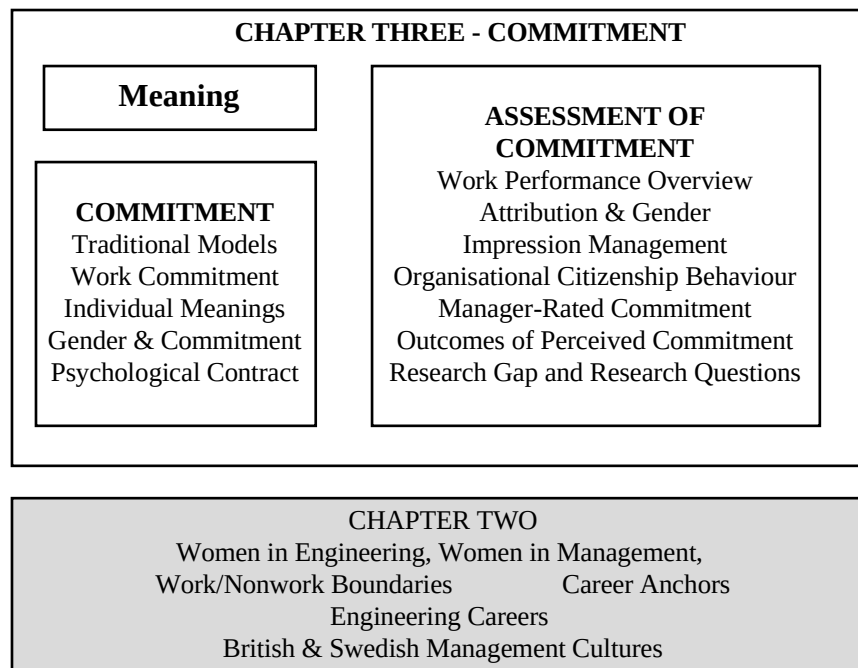


**Figure 3.1 The Literature Review: Part 2**

### 3.1 INTRODUCTION TO CHAPTER THREE

Chapter One set the scene for this investigation into why women managers, particularly in engineering, are often seen to be less committed than their male peers. Chapter Two presented a review of the literature on women in engineering management, work and nonwork balance, and career anchors. It also gave an overview of engineering careers, and the British and Swedish cultures in relation to management. Chapter Three now reviews the important literature on commitment, its meanings and its assessment, and then leads into the argument for the research questions (See Figure 3.1).

Chapter 1 has already drawn attention to the fact that the commitment concept may be changing in nature because of the external business environment. The literature on commitment is vast, and hence only a limited number of studies can be included in this review. It was considered necessary to go into some depth into the conceptual underpinnings of “commitment”, as well as the meanings of commitment literature, because this thesis is linking the practitioner meanings of managers in engineering organisations with the theoretically derived meanings of commitment, and will provide evidence to help further construct development from the practitioner perspective. The managerial assessment of commitment is a

fairly new field, but is a crucial one for this thesis, as it may shed light on why women are perceived to be less committed than men.

A short introduction to meaning in Section 3.2 is followed in Section 3.3 by a review of the development of the conceptualisation of commitment since the 1960s. Section 3.4 introduces the construct of work commitment. Section 3.5 describes the smaller body of work on behavioural manifestations of commitment, important for this study on the meanings of commitment as they are elicited through descriptions of committed behaviour. Gender and commitment studies are reviewed in Section 3.6. Section 3.7 describes the psychological contract between employee and employer. This section is important because the interviewees in this study were asked to rate the importance of *their* meanings of commitment and *their perceptions* of how their employer would rate that importance. The gap between those ratings can be said to represent tensions in their unwritten commitment contract with their organisation.

Section 3.8 introduces the literature on assessment of commitment, with an overview of work performance assessment and measurement systems, indicating the difficulties in obtaining objective measures of commitment. Gender stereotyping and attribution are then reviewed, to give an understanding of how this may occur when women's commitment is being assessed by managers in male dominated organisations. Section 3.9 explores the literature on impression management, as this emerged as a finding in this doctoral study. This is linked into Section 3.10 through organisational citizenship behaviour, which can be identical in behavioural terms (though not necessarily motivationally) to impression management behaviours. The outcomes of managerially perceived commitment are reviewed in Section 3.11.

Section 3.12 reviews the literature in this chapter. It indicates from previous evidence (Allen, Russell & Rush, 1994), that perceived higher commitment can lead to more career development being given by managers, and to higher ratings of promotability (Shore, Barksdale & Shore, 1995). Using an adaptation of Bailyn's (1984) model of individual/organisational fit on commitment and challenge, the final part of the chapter considers the impact which those perceptions may have on women's careers if they are indeed less affectively committed than men, as Dodd-McCue & Wright's (1996) findings indicate. In Section 3.13, the argument for the research gap, where no previous research has been found examining gender and managerial meanings of commitment, leads into the Research Questions, about the impact of gender and managerial level on meanings of commitment, and how commitment is assessed, in a search to find an explanation of why women managers are perceived to be less committed than men. The chapter closes with the Operationalisation Map, leading into the next chapter on Methodology.

### 3.2 INTRODUCTION TO MEANING

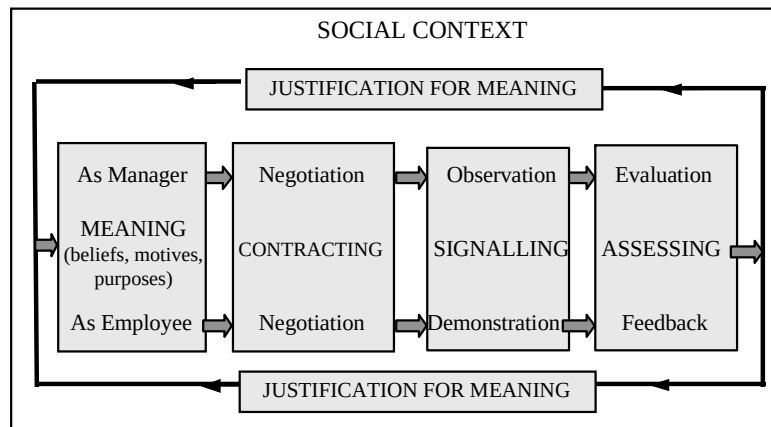


**Figure 3.2 The Meaning of Commitment at Work Map**

Despite the comments that women are less committed than men, the research literature indicates that little or no differences have been found in male and female commitment when measured by self-report instruments (Mathieu & Zajac, 1990). This study therefore seeks to examine what is actually meant by “less committed”, by ascertaining what “commitment” means to matched male and female engineering managers, to see if there are any gender differences in meaning which might provide an explanation. Meaning refers to:

“the cognitive schema that map our experience of the world, identify its constituents and relevance, and how we are to know and understand them” (Ranson, Hinings & Greenwood, 1980, p.5)

A key feature of “meaning” is that it has an active context, and hence an effect on the individual’s actions and self-justification for those actions. (Jary & Jary, 1991). Their *Dictionary of Sociology* definition of meaning is:

“the comprehension of social actors (their beliefs, motives, purposes, reasons in a social context) which at one and the same time automatically constitute an explanation of their actions and of the social occurrences to which these give rise” (Jary & Jary, 1991, p.387)

“Meaning” as described here is similar to the “sense-making” term used by Weick (1995), a partly cognitive process which could be seen as the enactment of a set of rules or heuristics, based on experience and understanding, which guide future behaviour. Weick said that sense-making was not just a cognitive process, but also the making sense of an action at work to which the actor is bound, through which the actor’s beliefs are reaffirmed, the actor’s responsibility is enacted, and the actions sustained. In this present study, such action would be about enacting commitment, taking part in the process of its assessment as manager and subordinate, and making judgements about the commitment of others at work.

This study therefore explores not just the meanings of commitment as used by managers, and the individual's **comprehension**, but also the **social context** in relation to the commitment aspects of the individual's unwritten or "psychological" contract with the organisation. It also examines the **social occurrence** in which individuals (both as managers and employees) use those meanings, the signalling and assessment of commitment. This is mapped in Figure 3.2.

There is a path from the process of assessment back to the meaning held by the individual as manager and as employee. This is the process of self-justification through rationalisation of behaviour, firstly, in negotiating terms of commitment, secondly, in the evaluation of commitment, either as employee sending cues, or as manager in receiving the signals, and thirdly, in the outcome of the assessment (Salancik & Pfeffer, 1978). This justification reinforces the meaning of the individual, and at the same time, may influence the meanings of "the organisation", as the social context with its normative effect on individuals.

### 3.3 TRADITIONAL MODELS OF COMMITMENT

#### 3.3.1 The Motivational Origins of Commitment

Commitment as a concept has its roots in the motivation literature, as the will to work. Motivation is related to satisfied and unsatisfied needs, and Maslow (1943) constructed a needs hierarchy, beginning with physiological, (the basic requirements of food and shelter), then security, then higher level needs such as social needs, esteem, culminating in self-actualisation. Other motivation researchers disputed the hierarchical arrangement, saying that the motivations could co-exist. McClelland (1961) identified three needs, for affiliation, power and achievement. Later motivation researchers such as Vroom (1964) tried to measure motivation based on the expectancy and valence of a particular outcome. Herzberg (1968) found that some intrinsic motivators such as need for achievement and recognition were very important characteristics for managers to take into account, whilst extrinsic motivators such as salary and status were “hygiene factors” which, once achieved, lost their key motivational feature. Job enrichment and challenge were highly significant tools to increase motivation, and commitment, and these intrinsic motivators are much in evidence in this study.

#### 3.3.2 Conceptualisation of Commitment

An understanding is needed of how commitment has been defined in the literature, and how it is traditionally measured. Commitment (sometimes stated as ‘organisational’ but often used without the specific label) has been extensively researched over the past thirty years. High levels of commitment have been associated with reduced turnover and absenteeism in particular. As organisations in the 1990s seek better performance and more involvement from their employees, through the introduction of human resource management policies of high commitment/high performance reward systems, the issue of commitment becomes increasingly important for managers (Guest, 1992, 1998).

Many studies of commitment report difficulties in its conceptualisation, particularly as there is so much overlap in the measures of commitment, its antecedents and outcomes (Morrow, 1983, 1993). O’Reilly & Chatman (1986) say:

“Although the term *commitment* is broadly used to refer to antecedents and consequences as well as the process of becoming attached, and the state of attachment itself, it is the psychological attachment that seems to be the construct of common interest.” (p.492)

Guest (1992) described commitment definitions as falling into three categories in the research literature:

- \* **attitudinal** with two components

- > **affective**: (identification with the goals and values of the organisation, and effort on behalf of the organisation)
- > **continuance**: (desire to maintain membership)
- \* **exchange** (between two parties)
- \* **behavioural** (the extent to which an individual is bound to behavioural acts).

The first comes from Mowday, Porter & Steers (1982), the second from Becker (1960) and Hrebiniak & Alutto (1972), whilst the third comes from Salancik (1977) and Staw (1977).

**Table 3.1 A Chronology of Conceptualisation of Commitment**

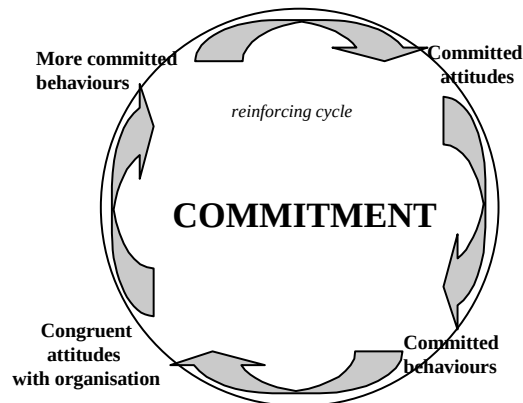
| Year                 | Type                                 | Author                                             | Definition of Organizational Commitment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|--------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1962                 | Behavioural, Calculative Continuance | Becker<br>Also<br>Hrebiniak & Allutto 1972         | Reluctance to leave the organization because of "Side bets"(also called "sunk costs") which would be lost. (often labelled passive)                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1961                 | Normative Calculative                | Etzioni                                            | <ul style="list-style-type: none"> <li>* Moral involvement (internalisation &amp; duty)</li> <li>* Calculative involvement (exchange)</li> <li>* Alienative involvement (constrained, not chosen)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                            |
| 1968                 | Continuance                          | Kanter                                             | <ul style="list-style-type: none"> <li>* Continuance,</li> <li>* Cohesive,</li> <li>* Control</li> </ul> (study of commitment in cult organisations)                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1974                 | Affective                            | Buchanan                                           | "An individual's "partisan affective attachment to the goals and values of an organization, to role in relation to these goals and values, and to the organization for its own sake, apart from its purely instrumental worth". <ul style="list-style-type: none"> <li>* "(a) identification – adoption as one's own the goals and values of the organization;</li> <li>* (b) involvement – psychological immersion or absorption in the activities of one's work role; and</li> <li>* (c) loyalty – a feeling of affection for, and attachment to the organization" (p.533)</li> </ul> |
| 1977                 | Behavioural                          | Salancik<br>Staw 1977<br>O'Reilly & Caldwell, 1980 | "A state of being in which an individual becomes bound by his actions and through these actions to beliefs that sustain the activities and his own involvement" (p.62)                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1979<br>also<br>1982 | Attitudinal /Affective + Continuance | Mowday, Steers & Porter                            | "A state in which an individual identifies with a particular organization and its goals, and wishes to maintain membership in order to facilitate these goals" (p.225). <ul style="list-style-type: none"> <li>* "(1) A strong belief in and acceptance of the organization's goals and values;</li> <li>* (2) a willingness to exert considerable effort on behalf of the organization; and</li> <li>* (3) a strong desire to maintain membership in the organization" (p.226) (These are active and global)</li> </ul>                                                                |
| 1980                 | Attitudinal /Affective + Continuance | Cook & Wall (British version of OCQ, BOCS)         | <ul style="list-style-type: none"> <li>* Involvement</li> <li>* Identification</li> <li>* Loyalty</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Year        | Type                                                             | Author                                                  | Definition of Organizational Commitment                                                                                                                                                                                                     |
|-------------|------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1981        | Behavioural                                                      | Scholl                                                  | * A force that maintains behavioural direction when expectancy/equity conditions are not met, with antecedents of investments, reciprocity, lack of alternatives and identification.                                                        |
| 1983        | Work Commitment                                                  | Morrow                                                  | Redundancy of several sub-constructs, overlapping definitions, incorporate OC into "Work C". (see below 1990)                                                                                                                               |
| 1985        | + Multiple foci                                                  | Reichers                                                | Construct has multiple foci, or referents (eg global, and to co-workers, to manager etc)                                                                                                                                                    |
| 1986        | Affective + Compliance                                           | O'Reilly & Chatman                                      | * Compliance<br>* Identification and<br>* Internalisation                                                                                                                                                                                   |
| 1990        | Affective + Continuance + Normative                              | Meyer & Allen                                           | * Affective commitment<br>* Continuance commitment due to side bets and lack of alternatives<br>* Normative commitment (moral obligation, feeling one "ought" to remain in the organization, and responsibility)                            |
| 1990        | All aspects                                                      | Mathieu & Zajac                                         | Meta-Analysis of antecedents, correlates and consequences of organizational commitment                                                                                                                                                      |
| 1990 & 1990 | Behavioural outcomes                                             | Randall (meta-analysis)<br>Randall, Fedor & Longenecker | Weak attitude-behaviour relationships found in meta-analysis. Elicitation from workers of meanings. Situational variables important. Need to use respondent-generated behaviours as measures of OC and behaviour. Suggest grounded studies. |
| 1991        | Identity maintenance                                             | Burke & Reitzes                                         | "The sum of the forces that maintain congruity between one's identity and the implications for one's identity of the interactions and behaviors in the interactive setting"                                                                 |
| 1993        | Treat Affective & Continuance C as Components of Work Commitment | Morrow                                                  | 5-component nested model, layered in terms of stability.<br>* Work ethic<br>* Career/professional commitment<br>* Continuance commitment (organisational)<br>* Affective commitment (organisational)<br>* Job involvement                   |
| 1993        | Dimensions & Stability                                           | Peccei & Guest                                          | Longitudinal study confirmed BOCS as multi-dimensional with distinct components of identification, involvement & loyalty, not equally stable over time but having uniform influence on each other over time.                                |
| 1997 a&b    | Behavioural                                                      | Benkhoff                                                | Development of Commitment Behavioural Scale, based on behaviours elicited from managers as relevant for their subordinates.                                                                                                                 |

Table 3.1 summarises some of the leading work on the construct of "organisational commitment" since the 1960s. Mowday et al position commitment in a cycle of commitment attitudes leading to committed behaviours which reinforce commitment attitudes (see Figure 3.3). Thus, many of the antecedents of commitment are also outcomes of commitment, for example, job satisfaction. There is a parallel situation to research on "trust", where Sparrow & Marchington (1998, p.304) explain the "need to distinguish between trust as a state of mind, and the actions and overt behaviours that result from the process of trusting." The

same could be said for commitment. A meta-analysis by Randall (1990) indicated five major commitment outcome variables: job performance, job effort, attendance or absenteeism, punctuality or tardiness, and turnover.

**Figure 3.3 The commitment attitudes-behaviours reinforcing cycle**



### 3.3.3 Bases and Foci of Commitment

The components of commitment (loyalty, identification, compliance etc) are later called “bases of commitment”, and much research in the 1990s now uses the separate bases because of measurement problems with overlapping concepts (Becker, 1992). People work with committed behaviour for a target or focus to which they have an affective attachment, for example, their organisation or their profession. Reichers (1985) put forward a multiple foci model, not just to global goals and values but to the manager and co-workers and other entities simultaneously, with strength of each focus relative to the individual. The “organisation” with which an individual is making a contract of commitment may be seen by that contractor in a number of ways, for example, as a global entity within a legal framework, or as a set of individuals, or both. Becker (1992) and Becker & Billings (1993) identified several different foci of commitment, finding that people’s commitment could have multiple constituencies. This was supported in Mathieu & Zajac’s (1990) meta-analysis. Other researchers found that people could have nested loyalties (Lawler, 1992), both to a project team and a department, as well as to the global company, for example. Building on Reichers’ work, Becker & Billings developed four particular group profiles:

- \* the locally committed (attached to their supervisor and work group);
- \* the globally committed (attached to top management and the organisation as a whole);
- \* the committed (attached to both local and global foci);
- \* the uncommitted (unattached to either local or global foci).



### **3.3.4 Problems with Measurement of Organisational Commitment – The OCQ**

Commitment is most frequently measured by asking employees to complete Mowday et al's instrument, the Organisational Commitment Questionnaire (OCQ), or a subset of it. A strong criticism is that it fails to capture the full extent of their conceptualisation (Brown, 1996). Randall (1990) says that little attention has been paid to the epistemic correlation, the link between the conceptualisation and the operationalisation in OC research.

In Mowday et al's work (1982, p.26), attitudinal organisational commitment is defined as “a mindset in which individuals consider the extent to which their own values and goals are congruent with those of the organization”, but the operationalisation of the construct is focused on continuance commitment. However, there are other concerns about the conceptualisation, particularly as to whether the sub-concepts were components of a whole, or separate components which could not be aggregated.

Meyer & Allen (1997, p.10) conceptualised commitment as a psychological state “reflecting an affective orientation towards the organisation (labelled “affective”); a recognition of costs associated with leaving the organisation (labelled “continuance”), and a moral obligation to remain with the organisation (labelled “normative”). They noted that “the meaning varies in every-day use of the term and related terms such as allegiance, loyalty and attachment”. Meyer & Allen (1991) considered their three concepts to be separate components of commitment, rather than aggregated elements of commitment as a whole, as individuals could vary in terms of the strength of the three parts. They developed another popular measure of affective commitment: the 8-item Affective Commitment Scale (ACS) which excluded the turnover intention items.

Many studies have used the OCQ over the last 20 years, particularly for looking at the relationships between the different types of commitment and a wide range of workplace behaviours such as absenteeism, organisational citizenship, in-role and extra-role performance. Mathieu & Zajac's (1990) meta-analysis of many of these studies, indicated that 103 projects out of 174 had used the OCQ, confirming its popularity as a measure.

### **3.3.5 The British (Cook and Wall) Commitment Scale**

In Britain, the OCQ was adapted by Cook & Wall (1980), resulting in the British Organisational Commitment Scale (BOCS). This operationalised commitment with three items each for the sub-components of commitment: involvement, identification and loyalty, to be self-rated on a scale of 1-7 on agreement with the statements shown in Table 3.2 (included so that the actual questions can be reviewed).

The issue in this research is whether responses to the set of questions in the OCQ and BOCS would indicate if an employee were committed in a way which would be meaningful to senior managers, particularly in engineering. A recent paper (Baruch, 1998) indicates the limitations of the OCQ and current conceptualisations of “commitment”, in the new era of downsizing and flexibility. People may tick ‘yes, they will put in a lot of effort to help the organisation be successful’ – but this may be so that they keep the job, or that they find the job so interesting, not due to attachment to the organisation per se.

**Table 3.2      The British Organisational Commitment Scale**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. I am quite proud to be able to tell people who it is I work for.</li> <li>2. I sometimes feel like leaving this employment for good.</li> <li>3. I'm not willing to put myself out just to help the organisation.</li> <li>4. Even if the firm were not doing too well financially, I would be reluctant to change to another employer.</li> <li>5. I feel myself to be part of the organisation.</li> <li>6. In my work I like to feel I am making some effort, not just for myself but for the organisation as well.</li> <li>7. The offer of a bit more money with another employer would not seriously make me think of changing my job.</li> <li>8. I would not recommend a close friend to join our staff.</li> <li>9. To know that my own work had made a contribution to the good of the organisation would please me.</li> </ol> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In a recent study with a German sample, Benkhoff (1997) commented that commitment research had made little progress because of the way commitment had been conceptualised by Mowday et al, and operationalised by the OCQ and other measures such as the BOCS. She viewed this as flawed by the assumption that the three factors (identification, extra effort, and desire to stay) together formed a homogeneous, monolithic construct of commitment, when the components were heterogeneous, causing errors in the analysis. She commented that only two items in the OCQ related to considerable effort, whilst seven related to loyalty and identification, and six to the desire to stay. In her test of the OCQ, Benkhoff found that the OCQ seemed to “capture a sense of belonging and satisfaction without capturing the motivational dimension”, and warned managers to be aware of this when measuring commitment.

So what does this term “commitment” really mean in the world of practice? This is important for managers appraising commitment and taking promotion decisions based on such appraisals. Based on the literature reviewed above, and the way in which the sample in this study used the term “commitment”, it is helpful next to explore the literature on a wider form of commitment, work commitment, which incorporates OC.

### 3.4 THE WORK COMMITMENT MODELS

#### 3.4.1 Randall & Cote's (1991) Model

Morrow (1983) suggested that the organisational commitment construct should be re-evaluated. Several sub-constructs such as work, profession and occupation commitment overlapped, some of which could be made redundant. During the 1980s and 1990s, others called for more work on the conceptualisation of commitment, including Randall & Cote (1991), who proposed a five part model of work commitment, comprising Protestant work ethic, career salience, job involvement, work group attachment as well as organisational commitment.

#### 3.4.2 Morrow's (1993) Model

The five-part conceptualisation of Morrow (1993), using similar constructs to Russell & Cote, comes closest to a model which fits the general meaning of "commitment" found in this study. In practice, the term "committed" is somewhat loosely used by managers to refer to commitment in a work context, whether organisational and/or work and career commitment, according to Morrow (1983, 1993). Figure 3.4 shows Morrow's concentrically layered model reflecting the composite nature of commitment at work.

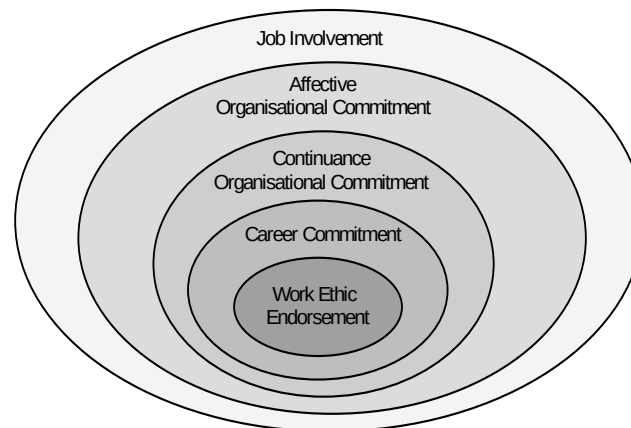


**Figure 3.4: Interrelationships among five universal forms of Work Commitment (Morrow, 1993 p163)**

Morrow related this order to the permeability of outside influences which could be effected on these component parts. For example, job involvement might be temporarily affected by a negative event or relationship with a manager at work, yet the individual might continue to feel committed to the career, or to staying with the company. A description of Morrow's five constructs follows.

#### 3.4.3 Work Ethic Endorsement

Morrow's conceptualisation of work commitment (shown in Figure 3.4) starts with an internal attribute of work ethic endorsement, the almost "natural" inclination to

work hard and be committed, come what may. There is not much research in this area, according to Mueller et al (1992), and it is often related with similar terms, such as work involvement, work as a central life interest, and Protestant work ethic. This work ethic variable is seen to be very stable (Randall & Cote, 1991).

#### **3.4.4 Career Commitment**

One layer out from work ethic is career commitment which includes commitment to a profession. Morrow & Wirth (1989) and Morrow (1993) came to the conclusion that the conceptualisation of career and professional commitment overlapped to such an extent that it was simpler to merge the two for research purposes. Blau (1985) defined career commitment as “the strength of one’s motivation to work in a chosen career role”. He warned that career commitment might be more easily identifiable in those with high regard for their profession. He repeated his study of nurses with a contrasting, less professional sample of bank tellers, and redefined career commitment as “one’s attitude towards one’s vocation, including a profession” (Blau, 1989). Mueller, Wallace & Price (1992) discussed the conflict which might arise between commitment to profession and to the organisation, saying that if work expectations and goals were met by the organisation, then there was not necessarily any conflict in the two commitments.

Kerr, Von Glinow & Schriesheim (1977) defined professional commitment as “identification with the profession and fellow professionals, ethics, collegial maintenance of standards, commitment to work and the profession, autonomy and expertise”. Commitment to the profession was identified as having local and cosmopolitan elements (Gouldner, 1958). Locally, in addition to loyalty to the employer, it encompassed commitment to gaining and maintaining highly specialised skills, whilst the cosmopolitan element indicated an external referent group (Morrow, 1993). Morrow (p.37) described professionalism as “the extent to which an individual subscribes to ideal tenets of a profession”, but like Mueller et al, did not see this as necessarily conflicting with organisational commitment. Similarly, in a study of the commitment of dentists, Kaldenberg, Becker & Zvonkovic (1995, p.1359) said that “professionals are expected to manifest commitment to a degree greater than workers in other occupations”, and commented that women professionals maintained their high professional aspirations after motherhood, including high commitment to work. Engineering is a professional occupation regulated by national professional institutions, but unlike accounting or law firms, where professional employees have an opportunity for partnership and independence, engineers in high technology engineering are usually employed and remain employees, with commitment to their profession as well as to their employer. It is anticipated that there would be little conflict over dual commitments to profession and employer in the organisations studied here, given their leading positions in the international professional engineering community.

### 3.4.5 Continuance Commitment

Continuance commitment is the third layer of the concentric model, the desire to stay in the company. This may be loyalty and desire to remain in the organisation, because of an affective attachment to it (Mowday et al, 1982). Morrow also positions Normative Commitment (Meyer & Allen, 1990) under this heading, as she did not see it as distinct from Continuance Commitment. As a form of Calculative Commitment, continuance commitment may be as a result of sunk costs, or investments of “side bets” (Becker, 1962, Hrebiniak & Alutto, 1972) such as pension, special relationships and conditions, built up over a number of years, where it would be costly to move. Another form of continuance commitment relates to the desire to stay in the company because of lack of viable alternatives (Baruch, 1998).

### 3.4.6 Affective Commitment

Affective commitment (identification and effort) forms the next layer. Table 3.1 indicated that Mowday et al (1979) had conceptualised organisational commitment with two sub-components, continuance and affective commitment, the latter being split into identification and effort on the organisation’s behalf. Identification means the belief in and acceptance of the organisation’s goals and values. These are instilled through a socialisation process when the individual joins the organisation. Where individuals are affectively committed to an organisation, they feel part of the community, through their common interests and mutuality. Individuals who have identified with the organisation are then likely to put effort on behalf of the organisation, particularly in extra-role behaviours known as organisational citizenship behaviours or OCB (Organ, 1990).

### 3.4.7 Job Involvement

The outside layer is job involvement. It is important to distinguish here between *job involvement* as used in this study, and defined by Kanungo (1982) as “the degree to which the individual identifies with a job, ie the importance of a job in one’s life”; and *employee involvement* as an organisational policy (for example, employee suggestion schemes, improved communication of goals) to increase employee involvement (Guest, 1992). Like Morrow (1993), Rousseau’s view is that job involvement can be impacted more easily than the internal layers, and this is supported by UK researchers, Peccei and Guest (1993, p.33). They said:

“the involvement variable was found to be significantly less stable than either of the other two components of OC [identification and loyalty], both of which exhibited a moderately high degree of stability over time”.

### 3.4.8 Cohen’s (1999) models

Further research is continuing on work commitment. Recent empirical research by Cohen (1999) into work commitment of Canadian nurses led to a remapping of the five elements of the two work commitment models of Morrow and Randall & Cote, and he found a better fit with the data in Randall & Cote’s measure, mainly

due to job involvement, which Cohen argued was not a situationally dependent variable. His revised models are shown in Figures 3.5 and 3.6.

**Figure 3.5: Morrow's Model revised by Cohen (1999)**

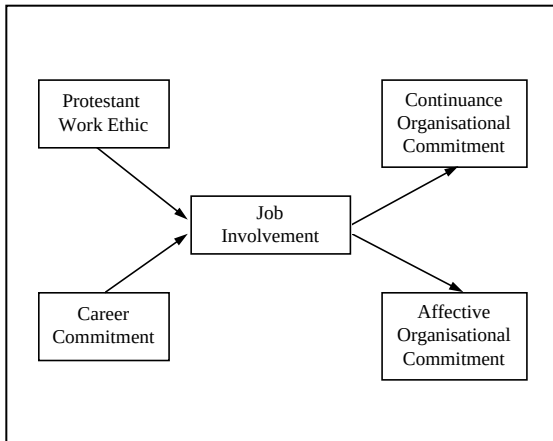
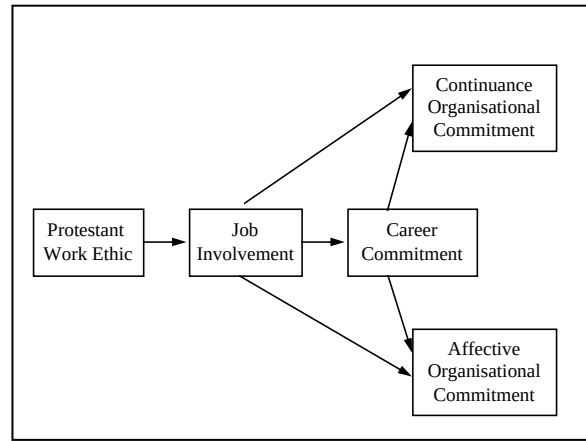


**Figure 3.6: Randall & Cote's Model revised by Cohen (1999)**



The linkages between these five elements of work commitment are still under investigation by quantitative researchers, as Cohen's work shows. For the purposes of the present study, it is important to note the five components. However, this study is exploring the meaning of commitment at work to engineering managers. It is therefore considered sufficient in the literature review to gain an understanding of this broader form of commitment, so that the findings from the interviews can be analysed with some prior knowledge of the constructs, but without testing a rigid causal framework (Lofland & Lofland, 1995).

Earlier in this chapter, attention was drawn to the lack of clarity around the construct of commitment and its measurement. Now, the thesis will review research using practitioners' meanings of commitment, as the findings of the present work will add to that body of research.

### **3.5 INDIVIDUAL MEANINGS OF COMMITMENT**

#### **3.5.1 What does Commitment mean in the Workplace?**

Few studies have examined commitment from the point of view of the employee's meaning. Reichers (1985 p.469) commented that the employee's own experience of "being committed" had been neglected in the literature, and she recommended more qualitative research in this area. She said that:

"Researchers have not asked subjects directly (or even indirectly) for their own perceptions and definitions of commitment. Thus, current measures of commitment may or may not accurately reflect the way people in organizations experience their own attachments to organizational life".

Brown (1996) explored how people evaluated their own commitment in terms of how they were obliged to act. He said that commitment "differs from an exchange agreement in which a person offers hard work and dedicated support in exchange for increased salary and promotion." Brown returned once again to the conceptualisation of organisational commitment and the problems with its measurement, particularly of the scoring of items as a whole when (in his opinion, shared by this researcher) three very different sub-concepts were being addressed. Brown saw commitment as both a pledge to do something, and the state of having pledged. His view was that all commitments have a focus, that there are terms agreed between the parties, and that the commitments have a strength in the life of the person in relation to other commitments. He took up the issue of what the focus of "organisational" commitment really is for employees, as people may be committed to their unit, their division and/or their company in different ways (following Reichers). His emphasis on the terms of commitment is important. These terms may well be unspoken and could be misunderstood, especially by women in a male-dominated culture such as engineering.

#### **3.5.2 Behavioural Approaches to Researching Commitment**

Randall, Fedor & Longenecker (1990) suggested that a stream of research was needed to explore the expression of commitment. In interviews with 16 randomly selected manufacturing employees, they asked how the subjects could tell when someone was committed. From a range of 23 behaviours given, a list of 15 frequently cited and relatively independent items was drawn up, and included in a mailed survey across the company. The sample was 80% male, with over-representation of clerical workers, whereas the present doctoral study is eliciting commitment meanings from a gender-balanced managerial sample. Randall et al's 15 items are listed here in Table 3.3. The factor label "sacrifice" is stretched, for example, "working well without supervision" does not really indicate sacrifice, and being willing to volunteer for tasks is more a type of involvement - again, not necessarily sacrifice. The survey respondents (of whom 4% were in top management and 8% in middle management positions) emphasised their concern for quality, the willingness to sacrifice personal concerns for the



organisation, willingness to share information, and presence in the workplace. These important features of workplace meanings of commitment as quality, sacrifice and sharing would be lost when commitment is measured using the OCQ, demonstrating that additional approaches to investigating commitment are needed. Randall et al recommended more qualitative research in the area of conceptualisation of organisational commitment, particularly as the “presence in the workplace” variables (around tardiness and absenteeism), such an integral part of the OCQ and the organisational commitment literature, were not significantly correlated with the OCQ-measured commitment of the employees in Randall's study.

**Table 3.3      Randall et al's Commitment Behaviours**

| Item Content                                            | Factor label       |
|---------------------------------------------------------|--------------------|
| Usually paying attention to details at work             | Quality            |
| Doing your work completely and thoroughly               | Quality            |
| Having a concern for quality                            | Quality            |
| Being cost-conscious                                    | Quality            |
| Typically following company policy                      | Quality            |
| Being willing to volunteer for tasks                    | Sacrifice          |
| Being willing to take on additional responsibility      | Sacrifice          |
| Being willing to give personal time to the organization | Sacrifice          |
| Working well without supervision                        | Sacrifice          |
| Often sharing knowledge and information with others     | Sharing            |
| Frequently offering suggestions                         | Sharing            |
| Not being late for work                                 | Presence           |
| Not being absent from work                              | Presence           |
| Not wasting any time                                    | No label – dropped |
| Showing enthusiasm about your work                      | No label – dropped |
| Percentage of variance explained                        | Quality      36.5% |
|                                                         | Sacrifice    11%   |
|                                                         | Sharing     9.9%   |
|                                                         | Presence    7.5%   |

Luthans, Baack & Taylor (1987) also recommended more manifest measures of commitment, and suggested that effort, for example, might be operationalised through measures of performance, and overtime in crisis situations, with both qualitative and quantitative measures, including direct observation. In the customer service field, some researchers have started to develop instruments to measure commitment to customer service linked to individual performance (Peccei & Rosenthal, 1997) and to organisational performance (Benkhoff, 1997). Benkhoff acknowledged the difficulties in identifying the variations in a certain type of desirable behaviour which is called “commitment”. She undertook a study of the link between branch performance and individual commitment of German banking employees, developing a new instrument, the Commitment Behaviour Scale (CBS) which is relevant to practitioners. She suggested that the missing link between commitment and performance might be better researched using a measurement of what the employees did, rather than their reported feelings of

commitment. Her criteria for the inclusion of specific behaviours were that they had to exceed the normal requirements for employees to keep their jobs, and they had to be independent of externally applied controls or benefits. The resulting behavioural criteria, elicited from interviews and focus groups with managers, included accepting extra responsibilities, working hard, taking the initiative, and acceptance of organisational policies.

Benkhoff stated that the behaviours would vary between organisations, as job descriptions and rewards would differ. She found the banking small branch environment a useful one, in that performance measures could be more easily defined and external environmental factors could be controlled. It would be much more difficult to do this in a large organisation as there would be so many extraneous factors. Her findings indicated that commitment and hard work would impact branch bank performance, and she suggested more research with her new approach to measuring commitment, in other industries and other countries. Benkhoff's CBS has two parts, one for the employee's own behaviour, and the other for the employee to report on the commitment behaviour of their superior.

**Table 3.4 Benkhoff's Commitment Behaviour Scale (Self)**

|    |                                                                                                                                                    |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | I always try to contribute to the performance of the bank by suggesting improvements to my boss and my colleagues.                                 |
| 2. | Even if I do not like particular organisational changes, I comply with those policies if they contribute to the continuous prosperity of the bank. |
| 3. | I am always friendly and helpful to customers, even if I do not like them particularly.                                                            |
| 4. | I avoid taking on additional duties and responsibilities at work ®                                                                                 |
| 5. | Basically I am an employee like everybody else. What counts is not getting under stress so that I do not get overworked. ®                         |
| 6. | HARD WORK: Which of these four opinions do you agree with most?                                                                                    |
| A) | I put myself out in my work and I often do more than is demanded of me. My job is so important to me that I sacrifice much for it.                 |
| B) | All in all, I enjoy my work and every now and then, I do more than is required. But this should not be a permanent situation.                      |
| C) | In my job, I do what is demanded of me. Nobody can criticise me there. But I cannot see why I should exert extra effort beyond that.               |
| D) | I often have to force myself to go to work. I therefore only do what is absolutely necessary.                                                      |

As Table 3.4 indicates, the questions seem to relate to a wider use of the term "commitment" by practitioners than the questions of the OCQ and BOCS focused so much on loyalty and desire to stay. However, some of the questions are not very clearly worded. The hard work question 6 (A) would have been better as two separate items, as the second part of the item is more extreme than the first. Also, items (C) and (D) are too similar, in that (C) says: "In my job I do what is demanded of me", and in (D), I therefore only do what is absolutely necessary".

When the present study started, the research gap was that no previous studies had been found which used managers' meanings of commitment as a conceptual base, and that Randall's work would be taken forward. Benkhoff has now also

elicited behaviours of commitment from managers, but related to performance of those below them. The difference between that part of Benkhoff's study and this doctoral study is that she was interested in the managers' descriptions of subordinate behaviours to design the instrument, whilst the present study explores managers' meanings in depth and related to their own positions and those above as well as below them, in two countries, taking gender and managerial level into account. As will be seen in the findings, the behaviours of commitment in this high technology, professional engineering field are very different from those under examination in Benkhoff's banking study.

### **3.6 SELF-REPORTED COMMITMENT AND GENDER**

#### **3.6.1 No Difference in Male and Female Commitment**

For the purpose of this study, gender is defined as “patterned, socially produced distinctions between female and male, feminine and masculine” (Acker, 1992). Chusmir (1982) drew attention to the stereotyping of women as less committed, and commented that this was a misperception contradicted by facts on turnover and absenteeism. His review of the literature led him to believe that sex role conflict, satisfaction of needs, and work commitment were the major factors impacting the job commitment process, in which sex role conflict was a barrier for women. A meta-analysis of previous organisational commitment research found almost no difference in male and female managers’ commitment (Mathieu & Zajac, 1990), but recommended further research into moderators such as age, job satisfaction, role states, leader behaviours and organisational characteristics.

Aven, Parker & McEvoy, (1993) undertook a further meta-analysis focusing just on gender and attitudinal commitment, using data from 27 samples with over 14,000 subjects. They investigated whether there was stronger evidence for a gender model of commitment, where men and women are seen to have different commitments based on their social roles, women deriving their identity more from their family role; or a job model, which holds that men and women have similar commitment, but that the job role experience may be different for men and women. Results showed no significant evidence for either model. They found that attitudinal/affective commitment was not related to gender, nor was job type a moderator of the relationship. The relationship between continuance commitment and gender was not included in the meta-analysis. The key finding therefore was that gender did not have a significant impact on an individual’s belief in the organisational goals, nor on the willingness to exert considerable effort on behalf of the organisation.

#### **3.6.2 Women are less Affectively Committed**

In contrast to the above studies reporting no gender differences, a later study by Dodd-McCue & Wright (1996) found evidence of women accountants being less affectively committed than men. They used two models to explain whether attitudinal commitment for men and women was shaped by gender socialisation or work experiences. They operationalised attitudinal commitment by measuring job satisfaction and job involvement, each with a single item statement (I think/don’t think this is the best job I’ve ever had; I think/don’t think about working somewhere else), which could be seen as a rather limited operationalisation. They found evidence to suggest that work influences shaped the organisational commitment of men and women, rather than gender-role socialisation. The men in their study were identifying more than the women with the organisation as a result of a more positive association with their work environment. Two points

need to be made about this study. Firstly, these results may not be generalisable across professional women to women in engineering. Professional women engineers work in a very different environment to accountants, many of whom work as specialists in non-accounting organisations, or in smaller accounting firms. Secondly, as the study used only two questions to measure attitudinal commitment, this evidence has to have limited generalisability. Another study by Marsden, Kalleberg & Cook (1993) also found women to have less commitment, but they found that women had less commitment-enhancing jobs than the men in their study. In the UK, a large study of managers (2304 males and 806 females) indicated that female managers were just as committed as the male managers. The women were just as concerned about getting opportunities for challenge, career development and feedback, but were not quite as concerned as the men about some of the extrinsic rewards (salary and security). Nonetheless, overall, the men and women managers' commitment to their work and career were similar (Alban-Metcalfe & West, 1991).

Thus, there is little evidence in the commitment literature of the impact of gender on commitment. Women appear to be as committed as men. Yet the myth, if it is a myth, remains, that women are less committed. "Popular stereotypes often conceptualise women as lacking in job commitment relative to men" (de Vaus & McAllister, 1991). An exploration of how commitment is assessed by managers in everyday life is therefore needed, and the theoretical underpinnings of that process are dealt with later in the chapter, but first, an understanding is needed as to how commitment is formed in the individual within the organisational culture, as the commitment part of the psychological contract.

### 3.7 THE PSYCHOLOGICAL CONTRACT AND COMMITMENT

#### 3.7.1 Recent Shifts in the Commitment Climate

There have been significant changes in the nature of the commitment relationship in the last decade, as the economic downturn led to a long period of downsizing and restructuring. In Britain, as in the US earlier, there has been a shift of career management responsibility from organisation to individual - the new psychological contract between employee and employer. The employer-employee relationship has been threatened, as employers seek to retain the advantages of high commitment and high performance whilst withdrawing from some of their responsibilities to the employees (Guest, 1998a; Sparrow, 1998). The British and Swedish professional engineering bodies are dealing with this shift of responsibility for career development, previously carried by employers, by creating frameworks within which both engineers and employers can continue to provide professional engineering services through individual commitment to continued professional development. Much of the work on the psychological contract deals with downsizing and redundancy, but this study is concerned about the commitment aspects of the psychological contract.

**Table 3.5 Definitions of the Psychological Contract**

| Year         | Author              | Definition                                                                                                                                                                                                                                                                                                                                                                            |
|--------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1960         | Argyris             | Not directly defined, but he used the term to describe the relationship between foremen (who guaranteed not to interfere) and workers (who guaranteed to deliver, if left alone to do so)                                                                                                                                                                                             |
| 1962         | Levinson et al      | The sum of mutual expectations between the organization and the employee                                                                                                                                                                                                                                                                                                              |
| 1965<br>1980 | Schein              | A set of unwritten expectations present at each moment between a member and others in the organisation. It has two levels: Individual and Organisational                                                                                                                                                                                                                              |
| 1973         | Kotter              | An implicit contract between an individual and organization which specifies what each expects from the other.                                                                                                                                                                                                                                                                         |
| 1990<br>1995 | Rousseau            | “an individual’s beliefs regarding reciprocal obligations. Beliefs become contractual when the individual believes that he or she owes the employer certain contributions in return for certain inducements. As perceived obligations, psychological contracts differ from the more general concept of expectations in that contracts are <i>promissory and reciprocal</i> .” (p.390) |
| 1995         | Herriot & Pemberton | The perception of employee and employer of their relationship and the things they offer each other in this relationship.                                                                                                                                                                                                                                                              |

#### 3.7.2 Definition of the Psychological Contract

As commitment is closely linked to the psychological contract, the thesis now examines how that contract is defined. The term “psychological contract” was first used by Argyris (1960). Since then, there have been a number of differing definitions, listed in Anderson & Schalk (1998) and Guest (1998b). See Table 3.5. Anderson & Schalk commented that there was no consensus on the definition,

with different authors talking of perceptions, expectations, promises, obligations, relationships and beliefs. There is another difficulty with the definitions, as one party to the contract is the individual, whilst the other is “the organisation”, introducing a different level of analysis, depending on how “the organisation” is conceptualised.

Rousseau describes the psychological contract as relational, and differing from a transactional contract in that it is more intrinsic, open-ended, dynamic, not bound by time, pervasive in scope, subjective and intangible. The psychological contract includes commitment to the perceived contract terms by the individual, but the understanding and expectations of the two parties are not necessarily identical. Herriot & Pemberton's view is that the very nature of a contract means it is bi-lateral. It includes more than just perceptions of terms and conditions, for example, prospects for promotion, or willingness to be mobile. Their view is that **both** partners' perceptions have to be included in the psychological contract. Rousseau's definition differs from the others in the field in that she views the contract as only the **individual's subjective perceptions** of the obligations to the employer and the employer's obligations to the individual. She argues that psychological contracts exist only in the individual's mind as mental models, and influence their behaviour and attitudes. Guest (1998b) critiqued the usefulness of the psychological contract, and proposed a new model (at Figure 3.9).

### **3.7.3 The Psychological Contract as Social Exchange**

Social exchange theory suggests that workers will seek to obtain rewards through relationships with their employers, and that longer-term and trust-based relationships will be stronger. In a psychological contract, the rewards will be over and above the contractual arrangements, and usually include intrinsic as well as extrinsic factors (Benkhoff, 1997a). In relational contracts, through the feeling of being cared for, deeper feelings of attachment to the organisation will be developed, together with trust that there will be recognition for effort put in beyond the call of duty, which benefits the wider organisation. This is a reciprocal and cyclical process (Rousseau, 1995), and is closely linked to the identification process of commitment, which could be seen as an outcome of that identification.

### **3.7.4. Establishment and Development of the Unwritten Terms**

The perceptions and expectations of the unwritten terms of the psychological contract will be picked up by individuals over a period of time, through socially constructed realities, from which learning takes place, according to social learning theory (Bandura, 1977). Having observed, the individual will match antecedents, behaviour and consequences, and maximise their potential through absorbing the culture. Sometimes the unwritten terms will be based on explicit artefacts or symbols, for example, a sentence in the CEO's message to stakeholders in the annual report, or a new recruitment brochure. Rousseau cites the giant aerospace company, GE's annual report in which the CEO, Jack Welch,

described the contract terms expected of future managers. The first was as follows: “One who delivers on commitments financial or otherwise – and shares the values of our Company. His or her future is an easy call. Onward and upward.” Welch was suggesting by this symbolically placed statement that future advancement would be the reward for organisational commitment, in terms of delivery of goals and shared values. This was over and above the transactional relationship of work exchanged for money. This indicated quite clearly that delivery of commitments and sharing the values were to be taken very seriously indeed in the GE culture, even if not written in the formal contract.

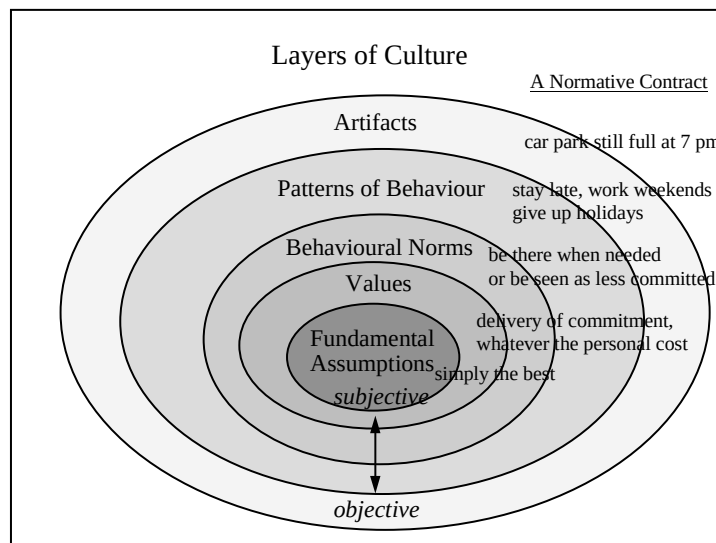


**Figure 3.7: Layers of Culture and a Normative Contract**

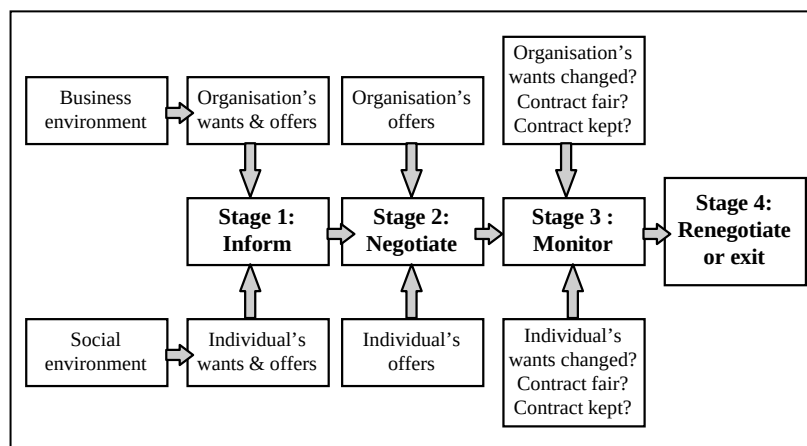
The individual's annual performance review document is likely to make explicit the goals and specific objectives. Other explicit signals come from stated corporate strategies, from the compensation and benefits policies, and from conversations with fellow workers. Sometimes, messages will be picked up by observation of the way other people (referrants) are dealt with under certain conditions, and expectations of similar treatment for themselves based on comparison (eg age, experience, tenure). There is personal learning, as well as the vicarious learning, as individuals and groups of individuals go through socialisation experiences, and pick up signals from organisational histories, stories and other symbols of the culture and norms. The consistency of the messages is important, and short-term hitches may be ignored in expectation of longer-term benefits, because of the perceived trust in the relationship between employee and organisation. Figure 3.7 shows Rousseau's (1995) model of culture with a normative contract, at the group level of analysis, although the contract indicators were changed for this thesis to reflect a commitment culture.

### 3.7.5 The Contracting of the Psychological Contract



Using social exchange theory to understand the individual/organisational relationship, Shore & Barksdale (1998) defined it in terms of level of obligation and degree of balance. Wayne, Shore & Liden (1997, p.83) said that “employees seek a balance in their exchange relationships with organizations by having attitudes and behaviors commensurate with the degree of employer commitment to them as individuals”. But the psychological contract is more than just a balancing of obligation and commitment. There is a dynamic element, wherein the perceptions of the exchange may be changed, even damaged (Morrison & Robinson, 1997). Thompson & Luthans (1990) talked of a zone of tolerance, or zone of acceptance (Rousseau, 1995) wherein small changes can be made by either party. When the boundaries of acceptance are breached, and one of the parties feels that the obligations were not kept, then violation occurs and the psychological contract is broken, renegotiated or discontinued, although the transactional relationship may continue (Robinson, 1996). Herriot (1998) presented a model of the four stages of contracting, which incorporates the adjustment process described above. See Figure 3.8.

**Figure 3.8: Herriot Model of the Four Stages of Psychological Contracting**



### 3.7.6 The Content of the Psychological Contract

Anderson & Schalk (1998) drew attention to the difficulties in measuring the psychological contract, including its content. In Rousseau's (1990) study of MBA students taking up new jobs, she first obtained from a number of recruitment managers a list of typical promises, obligations and expectations related to new employees, and then asked her sample to rate them in terms of how they perceived the new employment to obligate them and their employer. Table 3.5 lists the expectations elicited. Rousseau indicated that there may be other obligations which did not emerge in her study, and that there should be more exploratory research into the organisation's perceptions of the obligations of the relationship, rather than just new hires' expectations of the two sets of terms.

**Table 3.5. Rousseau's Content Dimensions of the Psychological Contract**

| Obligations expected by New Hires | Obligations expected by New Employers, according to the New Hires |
|-----------------------------------|-------------------------------------------------------------------|
| Promotion                         | Working extra hours                                               |
| High pay                          | Loyalty                                                           |
| Performance related pay           | Volunteering to do extra-role jobs                                |
| Training                          | Advance notice if leaving                                         |
| Job Security                      | Willingness to accept transfer                                    |
| Support for personal problems     | Refusal to support company's competitors                          |
|                                   | Protection of proprietary information                             |
|                                   | To stay at least two years                                        |

Herriot, Manning & Kidd (1997) criticised Rousseau's (1990) study's methodology for presenting content terms of the psychological contract to her sample (of MBA students rather than managers) for rating instead of eliciting their perceptions of the content terms first, because the perceptions of a psychological contract are specific to the individual. Herriot et al elicited the contract content dimensions from a representative UK sample, through the critical incident technique, asking for descriptions of incidents where expectations from the other party were exceeded or violated. As Table 3.6 shows, they identified 12 categories of organisational obligations to employees, and 7 categories of perceived employee obligations towards the organisation.

**Table 3.6 Herriot et al's Content Dimensions of the Psychological Contract**

| Employee-derived Dimensions of Perceived Obligation by Employer | Employee-derived Dimensions of Perceived Obligation to Employer |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| induction and training                                          | Hours                                                           |
| fairness in selection, promotion and redundancy procedures      | Work                                                            |
| justice in application of rules                                 | Honesty                                                         |
| equitable pay                                                   | Loyalty                                                         |
| fairness in benefits                                            | Property                                                        |
| time off for personal needs                                     | Self-Presentation                                               |
| consultation and communication                                  | Flexibility                                                     |
| minimal interference in how job is done                         |                                                                 |
| support                                                         |                                                                 |
| recognition of special service                                  |                                                                 |
| safe and congenial workplace                                    |                                                                 |
| job security as far as possible                                 |                                                                 |

### 3.7.7 Moving the Psychological Contract Construct Forward

Guest (1998b) recently reviewed the usefulness of the psychological contract, suggesting that the legal metaphor was inappropriate, given the unwritten terms, and the possibilities of either party to the contract changing the nature of it without the consent or knowledge of the other. He questioned the construct in terms of validity, parsimony, independence and testability. Guest accepted that the concept was still useful, especially with an interdisciplinary approach, but called for better theoretical development of the construct, adding that Rousseau's one-sided redefinition was inappropriate for describing a contract. Noting that much of the recent research had been undertaken in the US, Guest commented that UK research indicated much less executive experience of downsizing, change in career and job security than the literature predicted. It was not clear

that UK managers were in fact experiencing violation of their psychological contracts, and US researchers' assumptions that the findings had global relevance might be premature. Having suggested areas for further research (such as the content, including trust, fairness and exchange), Guest proposed a new model of the psychological contract, shown in Figure 3.9. This includes organisational commitment as a consequence of the contract, set in the context of the organisational culture or climate. Climate is the individual perceptions of culture (Schneider, 1990). Guest put absence as a consequence of the contract, but in the current times, presence might be more appropriate, as presenteeism becomes part of normal working life in many organisations (Simpson, 1997).

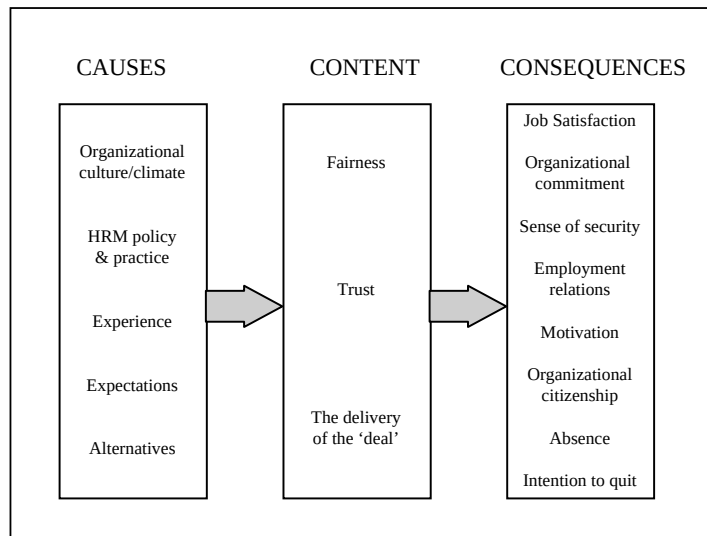


**Figure 3.9 Guest's Model of the Psychological Contract (1998)**

### 3.7.8 Downshifting , Balance and Career Anchors

Turning to commitment, Guest questioned whether professionals and managers would change their level of commitment because of psychological contract violation, and suggested an exploration of career commitment through qualitative and quantitative evidence. Guest (1998b) also commented on the reported US trend of managerial “downshifting”, “the deliberate choice to reduce input to work and a career, and seek a more balanced life-style”, and the desire of many managers in the UK for a better work/nonwork balance. He saw this as nothing new, as in the 1980s, Scase & Goffee (1989) found evidence of this trend in the UK. Guest mentioned the current interest in the career orientations of managers, and referenced the career anchors work of Schein (1990).

Having reviewed the literature on the commitment construct, the meanings, and the formation of the psychological contract, the thesis now moves on to examine the measurement and assessment of commitment in Section 3.8.

## 3.8 MANAGERIAL ASSESSMENT OF COMMITMENT

### 3.8.1 Introduction to Assessment of Commitment

This thesis is exploring why female managers are often perceived to be less committed than male managers, and is therefore seeking an understanding of the meanings of commitment held by matched male and female engineering managers. This chapter has so far reviewed the literature on the construct of commitment, from the academic conceptualisation to the meanings held by employees, and established that there is no significant difference in men and women's commitment when measured by the traditional instruments. The relevant psychological contract literature was reviewed to explain how commitment was developed within the corporate culture. However, it is not just the meaning of commitment which has to be investigated, but the managerial perceptions of commitment of women in management, in an environment where almost all the managers, especially senior managers, are male. An understanding is needed of how those perceptions are derived, as they may be socially constructed. Using a social information processing approach, Salancik & Pfeffer (1978) stated that perceptions are immediately experienced but then information is processed, and later recollected and reconstructed, with missing information presumed. The "filler" information is taken from the cues absorbed from the social and cognitive environment, but may not always be accurate. So the perception is constructed and reconstructed within a social environment, in the case of this study, within the aerospace engineering workplace in the UK and Sweden. But commitment is difficult to observe, according to MIT's Lotte Bailyn, perhaps the leading researcher in the 1980s in the field of engineering careers and gender.

"Commitment, like motivation, is not something that we can observe directly. We infer that they exist because of what people say and do. There are at least two kinds of behavior that signal employee commitment. First, committed employees *appear* to be very single-minded or focused on doing their work. The second characteristic that we associate with committed employees is their willingness to make personal sacrifices to reach their team's or organization's goals." (Bailyn, 1993, p.110)

Therefore, the literature on the process of commitment appraisal should be examined, where perceptions of commitment are the evidence for managers in organisations. Commitment is sometimes formally measured by companies, including one of the Swedish firms in this sample. In other companies, it is used as a performance criterion, but never measured.

### 3.8.2 Work Performance Assessment Overview

This section gives an overview of how work performance, including commitment, may be measured, and highlights the subjective nature of assessment, even

though the systems strive for objective, numerical and comparable evaluation of performance. The literature indicates that commitment assessment is subjective.

### **3.8.3 Measurement Systems in relation to Commitment**

Work performance measurement is defined as “the methods or procedures that provide quantitative indexes of the extent to which employees demonstrate certain work behaviors and the results of those behaviors” (Landy & Farr, 1983, p.7). Following earlier measurement systems based solely on inputs and outputs, and then on personal traits, management by objectives was introduced, based on goals or key accountabilities. Companies now use a mix of measures, to obtain a more balanced, fairer rating of individual performance, the high performance management model. (This overview restricts itself to consideration of work performance evaluation of existing employees, and excludes the recent trend for outsourcing assessment undertaken by external Assessment Centres, for new hire positions.) Behaviourally anchored rating scales were developed, focusing on particular aspects and expected level of performance. High performance management assessment enables individuals to achieve their goals whilst developing themselves, enabling companies to develop the competency of their workforce, through progress reviews and feedback (Rausch, 1985).

There are two categories of performance data: judgmental (such as ratings by another individual) and non-judgmental (data which can be counted). In this study, the judgmental assessment of commitment is of interest. Landy & Farr (1983) gave some examples of ratings of quality, a sub-component of “commitment” in this study, commenting that it is preferable to measure observable job performance factors rather than personal traits such as initiative and co-operation. The latter are personal characteristics which serve as facilitators or barriers to performance level, but are not performance itself. They say: “Behavioral performance dimensions are more objective, but may not seem to offer us the transsituational generalizability that may be desired when we want to predict the behavior of an individual in a new setting” (p.87). They suggested a compromise as the solution, using trait names as labels, with anchored behavioural statements. An example of commitment measurement with a dynamic element is given by Storey & Sisson (1993, p.192), where for planning purposes, a number of key players in a cultural change process are rated with their present position, and the target position. Action would then be taken to help individuals develop to move towards the right hand side of the map.

### **3.8.4 Problems with Rating Scales**

Whilst there are advantages for organisations to use ratings, for example, the flexibility and the ability to tailor rating criteria to specific tasks, there are several problems to do with the objectivity of the rating. Scales are subject to different interpretations, raters vary in use of the extreme ends of scales, many raters do not like to give low ratings, so their reports are skewed towards the positive, and

good (or bad) performance on one criterion may influence scores on later criteria, the so-called “halo effect”. The scales themselves may not be very useful unless they are well-matched to the necessary attributes of the job. Fletcher & Williams (1985, p.10) said “Try getting different people to define “drive”, “integrity”, “maturity” and “determination”, and you will frequently get quite significantly different concepts”. Another problem with ratings and work performance assessments used to select managers is that they are based on research with male managerial samples, as previously there were even fewer women in management. These systems are presumed to be gender-neutral, but have emerged from a US-based masculine leadership culture (Alimo-Metcalfe, 1995).

### **3.8.5 Performance Evaluation Interviews**

Fletcher & Williams (1985) reported the shift from performance rating alone to a combination of rating and appraisal by interviews, or by interview alone. Whilst the rating scale criteria may reflect the personnel manager’s views of what is important, the appraisal interview is based on those of the line manager, who should have a better understanding of the specific needs of the job. Appraisal is becoming more future-oriented, moving from being a carrot and stick tool to becoming an opportunity for individuals to communicate and influence their managers, rather than just being a reflection on past performance. Sharing in the goal setting becomes a motivating factor, although achievement of the goals may not be totally within the subordinate’s control. Another motivating factor is the identification of training needs for better performance. The individual then forms a frame of reference based on their performance and the feedback received, within which their competence can be evaluated (Landy & Farr (1983).

### **3.8.6 Link between Rater’s Performance and Evaluation of Others**

Landy & Farr also stated that although there has been little research in the area, “one’s own performance level may be an anchor for one’s evaluation of others.... It is likely to influence judgements and attributions about task difficulty, ratee motivation and ratee ability” (1983, p.127). This is important in the study of commitment assessment, as an individual’s own meaning and perceived level of commitment in its own context may be used to judge that of subordinates.

### **3.8.7 Potential Bias in Systems of Performance Rating**

Fletcher & Williams (1985) drew attention to the fact that whilst performance assessment may be an open system for those lower down in the organisation, the rating of potential (promotability) for senior management positions is often a closed process. There may be hidden criteria, such as reaching a certain level by a particular age, or having a particular portfolio of experience by that age. Confidential reports may be sought, written or verbal, and these will by nature be very subject to personal bias, motivation, verbal expressiveness and recall ability of the rater, and difficult to compare across people. There may be inbuilt checks to avoid subjective bias by raters, by having a father/grandfather comment system, so that the rater’s manager has to make a written report. Additional bias

may nonetheless result from this check, as it depends on the readiness to provide input and the writing expressiveness of the author, who may still give a subjective viewpoint. However, if this is simply a countersignature on a rating form, then that may be signed off without any real involvement from the “grandfather”.

### 3.8.8 Personal Justifications for Ratings and Outcomes

The meaning diagram shown at Figure 3.2 indicated that there were feedback loops from the commitment assessment process. In their consideration of job attitudes through a social information processing approach, Salancik & Pfeffer (1978) talked about how rationalisation of behaviour takes place, when a person makes sense of the environment. Their sense-making of the norms and expectations of their social context allows them to make acceptable justifications for their behaviour. So in the commitment assessment process, any stereotyping based on gendered expectations and male-dominated organisational cultural norms (for instance, that women managers are not as able as their male peers to take postings overseas, because of their family roles (Harris, 1998)) might be explained and justified, reinforcing the individual behaviour and in a wider sense, the organisation's behavioural norms.

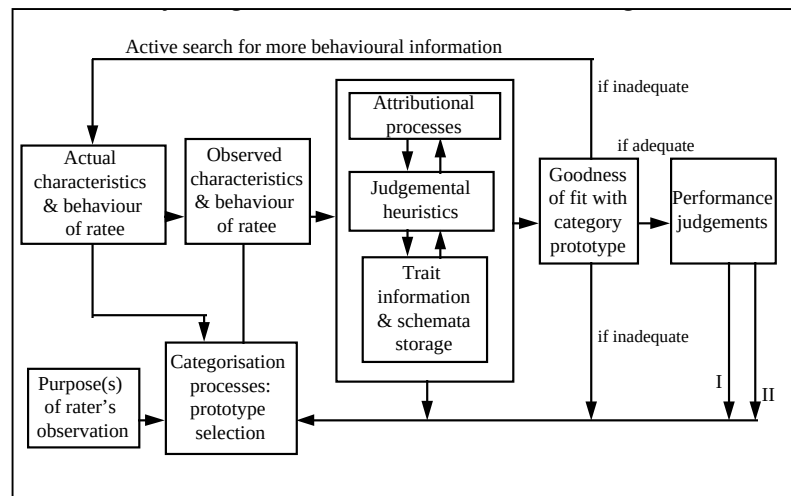


**Figure 3.10 Major Cognitive Processes in Performance Judgement**

### 3.8.9 Rater and Ratee Characteristics

Landy & Farr (1983) commented on the influence which rater and ratee characteristics, and their interaction, may have on the assessment process. Demographic variables such as gender and age play a part, as do psychological variables such as rater liking for ratee, for example. An understanding is needed of how the judgements are made, by examining the cognitive processes involved.

### 3.8.10 Cognitive Processes involved in Rating

Feldman (1981) explained that people have short term and longer term memory storage to deal with the vast amount of information which they receive. As they observe, they use a categorisation system to organise the data, which facilitates data retrieval when needed, with an automatic recall system. The prominence of particular features, such as being female, may result in a categorisation by that prominent characteristic over others. On the basis of retrieved information, a fit is made of the observations and the prototype, and the performance judgement is made. Sometimes this may result in stereotyping. Landy & Farr's map of the major cognitive processes in performance judgement is shown at Figure 3.10.

### 3.8.11 Stereotyping of Women Engineers- seen as Women first

As the topic of gender stereotyping is so intertwined with the main body of research on women in management, this section will deal only with stereotyping, but Chapter 2 included a section on Women in Engineering Management, where underlying issues such as power and culture were dealt with in more depth. Women engineers are more likely to be seen as **women** first than as **engineers who happen to be women** (in Norway, Kvande & Rasmussen, 1991; in Sweden, Wahl, 1995), and managers are still thought of as male. Alimo-Metcalfe (1995) reported a study which found discrimination still occurring, as male candidates were preferred for the typical male-typed post, whilst females were preferred for the traditional 'female' position. Schein (1996) found that both male and female ex-MBAs continued to attribute typical male managerial characteristics to the notion of "the manager". Rubin (1997) also found evidence of male managerial stereotyping of women during performance assessment for promotion.

Women have few female role models to emulate (Horgan, 1989) and their managers are not used to working with professional women, so women's behaviour may be seen as typical of females rather than of engineers. Managers are more likely to recommend someone like themselves (ie male) when considering career development (Powell & Butterfield, 1994), and engineering, almost all senior managers are male. The rater may attribute stereotypical behaviours and performance of the salient category to the ratee, regardless of actual behaviour and performance.

To develop this further, the appraisal process whereby managers pick up cues (here about commitment) from subordinates, and categorise and recall such evidence, means that women are more likely to be perceived to possess traits and use behaviour most typical of the main category, in the case of women engineers, as **women** rather than as **engineers** with managerial potential. (Feldman, 1981). The whole process is interactive and iterative, as women are influenced by their managers and by the career development decisions made. Feldman (1986) described the "Pygmalian" effect where the expectations of the manager, based on the categorisations made about the characteristics of the



subordinate, influence the quality of the relationship. This could then lead to more career rewards being given to those perceived to be more committed. Even where assessment is considered to be objective, there may still be subjectivity in the choice of criteria on which assessment is made.

### **3.8.12 Outcome of Stereotyping on Perceptions of Commitment**

Research on women managers' careers by Ohlott, Ruderman & McCauley (1994) has indicated that women may not get equal opportunities for on-the-job development and job challenge, because of gender stereotyping. The mostly US-based organisational commitment literature indicates that women are more likely to be perceived to be less committed than men, because of residual stereotypical attitudes towards women in society, and that people with perceived lower commitment will not be offered as much career development (Shore, Barksdale & Shore, 1995; Allen, Russell & Rush, 1994). High-tech engineers need continuous developmental experiences, not just from formal training but just as importantly, from on-the-job development, job challenge and job rotation (Davies & Easterby-Smith, 1984, Igbaria & Siegel, 1992; Lee & Smith, 1992; Lam, 1996).

Organisational discrimination in the US is now very subtle, because of affirmative action legislation. Nonetheless, such discrimination may still have a devastating impact on the women's careers, if they are of the right calibre for the top levels of management. The women's perceived human capital (such as investment in education, competences and experience) is rated less. Eventually, their competence will actually be less because they will not have had the chance to grow through really challenging jobs, whilst their male peers have learnt through taking the challenges on and overcoming them. Hofstede (1998) reported a "rebellion" by women in a Danish company, where despite the fact that more than half the workers were women, there were no females in senior management. Hofstede said that:

"Management, which shared the professional subculture, held an image of the woman employee that placed all women in the administrative subculture: it saw them as relatively uneducated employees in routine jobs, not upwardly mobile. The company's problem was that this image was no longer accurate, if it ever had been accurate. From the 1700 women in the company, 700 now had a higher education, many worked in professional roles and even those in administrative roles were nearly as much interested in a career as their male colleagues." (p.10)

This indicates how difficult it is to change the cultural attitudes. Only after that company started losing money did the management change. The image of women as non-managerial and non-professional was really ingrained. Stewart (1984) said that "other people's perceptions will dominate - if their perception is that you are not qualified...(it will be) almost impossible even if you have ability".

### **3.8.13 Conclusion to Section 3.8**

As Shore, Barksdale & Shore (1995) indicated, employees have to signal their commitment to their managers, by their behaviour, where they are agents, and by cues over which they have no control (such as race, height, or gender). The commitment signal is interpreted by the manager through a lens, based on the expectations (drawn from the societal, professional and organisational norms) and attitudes of the manager (drawn from his/her own experiences), forming a framework of reference. According to Salancik & Pfeffer (1978, p.226), "the social environment provides cues which individuals use to construct and interpret events. It also provides information about what a person's attitudes and opinions should be." It is this processed information resource which is drawn on when the manager is allocating job challenge opportunities. Where the manager is male, then stereotypical assumptions about women in society in general, and about those women with whom the manager has had experience in particular, may lead to gender-biased decisions, resulting in shorter-term developmental, less-powerful experiences being offered to women (Ohlott et al, 1994).

Awareness by individuals of possible stereotyping often leads to action to influence the signalling process. In the next section, the literature on Impression Management is reviewed. This is of interest as it underpins some of the findings and analysis in Chapter Seven.

### 3.9 IMPRESSION MANAGEMENT (IM)

Part of the commitment signalling and interpretation process is open to influence by the employee to present a more favourable image to the manager of their commitment. It is therefore useful to review the impression management literature to understand the theoretical framework underpinning this influencing behaviour. Liden & Mitchell (1988), Fandt & Ferris (1990), Shore & Wayne (1993), Wayne & Liden (1995), Thacker & Wayne (1995), and Rosenfeld, Giacalone & Riordan's book (1995), are among the leading sources in the impression management field. Figure 3.11 maps out the elements involved.

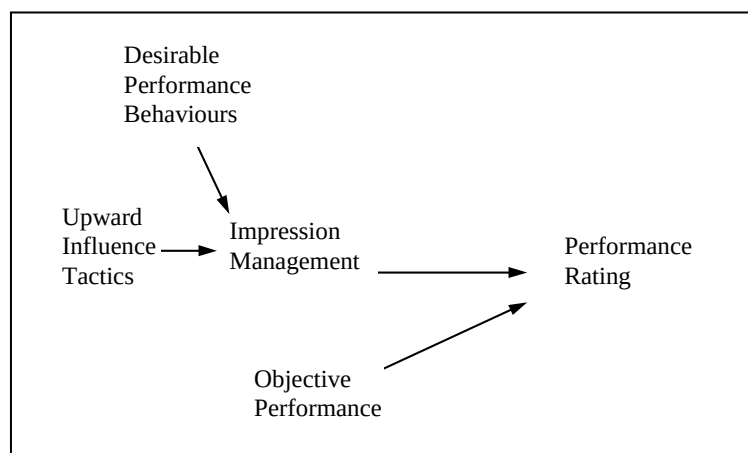


**Figure 3.11 Impression Management and Performance Rating**

#### 3.9.1 Constructing Social Identities

Impression management is the process whereby individuals seek to influence the perception of others about their own image. Research indicates that this is a strategy used by people in organisational settings to gain advantage. Kilduff & Day (1994) stated that “evidence suggests that the skilful management of impressions can enhance an individual’s chances of career success in organizations” (p.1048). Advice to aspiring managers in *The Sunday Times* (1999) is to play the corporate games, “make sure you understand how decisions work within the organisation or client firms, and make sure you know where power really lies”; “practise speaking up to ensure visibility among managers”.

Rosenfeld et al (1995) presented a history of research in this field, in which an early influence was the work of Goffman (1959) on the way people construct their social identities through different roles, sometimes unconsciously by, for example, body language, and sometimes consciously seeking to influence significant others. In the past, IM was seen as something “nefarious”, whereas more recent researchers take a wider view. Rosenfeld et al explained that through influencing others (the external audience) by particular behaviours, people may also influence themselves. For example, when an uncertain person

presents their work to their manager, they may work hard on improving their performance, make a good presentation, and readjust their view of themselves (the internal audience) as presenters.

### **3.9.2 Influence and Power**

Impression management is an exercise of power by the actor, seeking to control the impression which the target has of them. Thompson & Luthans (1983) in a study of organisational influence processes, went back to Etzioni's (1961) work, included in Table 3.1, on commitment as calculative involvement in the organisation. They used a dynamic model:

an environmental antecedent → behaviour → consequence.

They suggested that individuals (influence agents) who wanted promotion would ensure appropriate behaviour when their manager (target) was present, which they believed would enhance their chances of the reward. Whether that was successful or unsuccessful, a social learning process would take place. This would reinforce or change not just the influencer's beliefs, but also the target, so that the power relationship itself changed. A key feature of the model is that power involves not just the two individuals, but also the environment. Power as a set of behaviours is observable and measurable, and the environment may be seen through individual perceptions. A more recent paper by Luthans (Stajkovic & Luthans, 1997, p.1134) talked of social reinforcement which "includes the use of verbal consequences, typically expressed by individuals such as attention, recognition, commendations, compliments and praise", the consequences of which are used to predict subsequent behaviours. These are linked to impression management when used as strategies to impress and obtain a more favourable outcome of performance assessment from the manager.

### **3.9.3 Non-Verbal Influences**

Rosenfeld et al argued that IM in organisations is a process of reciprocal influence, and a negotiated settlement involving actors and targets. It could be argued that this is particularly so in the case of commitment which involves an actor, an exchange between the individual and the organisation, and the manager who acknowledges the commitment. This two-way negotiation is picked up by Tannen (1994), when she talks of the need for women managers to interact with the right demeanor for the authority which they seek, but that has to be recognised by the other parties as deserving of authority. Several kinds of non-verbal behaviour can contribute to enhancement of one's image at work. This might be the clothes which people wear in order to be taken seriously in their particular work environment, whether formal office wear in a financial markets business, or creative designer wear in a PR organisation, for example. It might be the body language, and the transient facial expressions of an employee, for example, on being asked to undertake a task, a clear signal of the level of

commitment, open to enhancement by the individual yet subject to unconscious revelation of the “real” commitment beneath the surface.

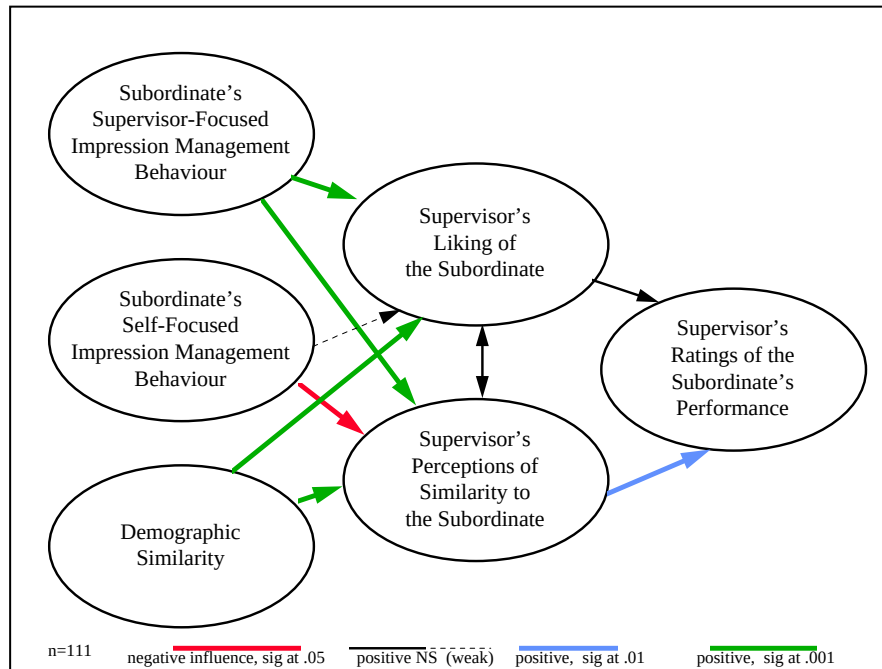


**Figure 3.12 Wayne & Liden's Model of Subordinate/Supervisor Influence**

### 3.9.4 Upwards Influence Strategies

Impression management strategies can be categorised into two: upward-influence behaviours, and performance related behaviours (Wayne & Ferris, 1990). First, the upwards influence strategies will be examined. Wayne & Liden (1995) presented a model, shown at Figure 3.12 testing the links between subordinate influences and supervisory ratings of performance. Their conclusion was that supervisor-focused strategies were more successful than self-focused strategies in influencing the supervisor's ratings of their performance, and that supervisors did not appear to suspect ulterior motives in their subordinates who used supervisor-focused influence. Tepper (1995) explored the actual strategies used by proteges to maintain relationships with their supervisors/mentors. These could be grouped as follows:

- \* personal (intimate, personal and social interaction)
- \* direct (challenging, questioning, negotiating terms and perceived injustice)
- \* regulative (regulating physical interaction, verbal communication and emotional displays)
- \* contractual (keeping to agreements, obtaining clarification, information)
- \* extra-contractual behaviours (willingness to exceed organisational and supervisory expectations, being flexible, offering, self-sacrificing).

Upward influence behaviours include ingratiation, or facilitating interpersonal relationships with one's supervisor. Thacker & Wayne's (1995) results indicated

that ingratiation tactics that enhance perceived similarity between supervisor and subordinate increased liking for the subordinate, ultimately resulting in enhanced assessments of promotability. Supervisors may be less inclined to deal severely with someone they like, and so if a warmer relationship has been “managed” by the subordinate, then a less unfavourable power balance may be established. Rosenfeld et al (1995) suggest that this may be crucial for minority groups including women when dealing with those with more power, especially when performance appraisal criteria are subjective. Interestingly, Thacker & Wayne found that females were more likely to be rated as promotable, although there had been a recent affirmative action policy with monitoring of appraisals in their sample organisation (a university under scrutiny by the State legislature) which may have biased the results. They suggested that an investigation of the use of influence tactics by top managers may contribute to a better understanding of the “glass ceiling” for women managers.

### **3.9.5 Ingratiation, Self Promotion and Acclaiming**

Rosenfeld et al (1995) described self-promotion, or “window dressing” in terms of competence in organisational settings. The difference between ingratiation and self-promotion is that the former is reactive to the perceived state of a relationship, whilst the latter is pro-active behaviour demonstrating the competences or behaviour perceived by the sender to be likely to be rewarded by career rewards. Another way of enhancing one’s image is to claim credit for something where others have just as much claim, or for more credit than is due. This could be a claim to sole ownership of the highly rated deed or action, or an over-emphasis on the positive value of the action or deed. (Cauldwell & O’Reilly, 1982). However, over-use of impression management can result in an opposite effect on the target to that intended by the sender.

### **3.9.6 Exemplification**

Another example of impression management, but in the other direction, supervisor to subordinate, is that of exemplification, where a leader wishes to set standards for colleagues. Rosenfeld et al (1995) listed some IM behaviours, for example volunteering for tough assignments, staying late, taking work home, helping others and going beyond the call of duty. These could all be said to be related to managerial and subordinate demonstrations of commitment. In a large high tech US firm, Perlow (1998) found commitment being controlled by exemplification, as managers worked very long hours and publicised their behaviour.

### **3.9.7 Performance Related Behaviours and Measurement**

Next, the second component of IM strategies, performance image-enhancing behaviour, is addressed. Although Rosenfeld et al (1995) described research into IM measurement as in its infancy, they evaluated the use of several self-report instruments which measured to what extent individuals use IM techniques. Those

who score high on the measures are labelled high self-monitors. Wayne & Liden (1995) also included a short form of the IM measure.

Rosenfeld et al reported that some studies have found high self-monitorship is related to leadership potential ratings at work. Fandt & Ferris (1990) stated that high self-monitors have a better understanding of what behaviour is required to present themselves more positively as competent. There are a number of other research studies in this area, subject to difficulties in that self-reports may be subject to bias, whilst IM behaviour is difficult to observe outside the experimental setting used in some of this research. Wayne & Ferris (1990) set up an experiment in which identical performances were given by one person using IM techniques and another who did not. The IM user was seen by observers to be significantly more productive than the non-user. Wayne & Ferris have also used field studies to investigate the use of IM, finding that those who tried directly to impress their supervisors were more positively rated than those who tried to impress in a self- or job-focused way. Rosenfeld et al stressed the importance for managers of understanding the cues received from subordinates and vice versa. Used well, impression management can lead to desired behaviours and conformity to norms, through example-setting, modelling of positive behaviours and good organisational citizenship.

This moves the thesis on to the next section which deals with organisational citizenship behaviours, important in the field of commitment assessment, but subject to impression management techniques, according to some researchers (Bolino, 1999).

### **3.10 ORGANISATIONAL CITIZENSHIP BEHAVIOUR (OCB)**

#### **3.10.1 Research into OCB**

As some of the set of visible work commitment behaviours in this doctoral study are to do with being a good organisational citizen (Organ, 1990, 1988, Van Dyne, Graham & Dienesch, 1994)), this field should be included in the literature review as part of the commitment signalling and recognition process. Brief & Motowidlo (1986, p.721) had drawn attention to the role of prosocial organisational behaviours, which they felt were eminently desirable for organisations, because “they reflect a humane concern for conditions of work, a sensitivity and consideration for individual welfare, and a more profound dedication to organization objectives than can be stipulated in any job description”.

Organ identified five components of OCB: altruism, generalised compliance or conscientiousness, sportsmanship, courtesy and civic virtue. Van Dyne et al (1994) took the concept a stage further to include the reciprocity element (see also Rousseau, 1990) and broadened out the dimensions. They stated that “active citizenship syndrome is based on convenantal relationship, which is characterised by open-ended commitment, mutual trust, and shared values” (p.768), and the covenant is seen as a pledge to serve common values, which differs from a social exchange because that is build on fairness rather than shared values. Their study identified some of the specific behaviours which are elicited in this present doctoral study (for example, using judgement, meeting deadlines, and keeping updated) as meanings of commitment. Van Dyne et al thereby widened the definitions of citizenship “from simple, helpful and cooperative acts to include change-oriented and challenging behaviours.”

#### **3.10.2 In-role and Extra-role Behaviours**

The behaviours of OCB can be described as extra to the normal “in-role” tasks. Werner (1994) found that extra-role activities did influence overall performance ratings given by supervisors. Werner drew attention to the normative question as to whether raters should be using extra-role behaviour information when assessing performance. In organisations, it is formally the in-role behaviour which is specified and forms one side of the transactional exchange contract. He suggested that supervisors should take the extra-role behaviour into account, but then there would be a danger that emergent tasks currently extra-role would become in-role as far as performance appraisal is concerned. It could be said that this is happening in the UK as far as working additional unpaid hours are concerned. In many businesses, the additional hours are expected, with penalties for non-compliance. Morrison (1994) also called for the boundary between in-role and extra-role behaviour to be examined further, because it varied in her study between individual employees, and between supervisors and employees.

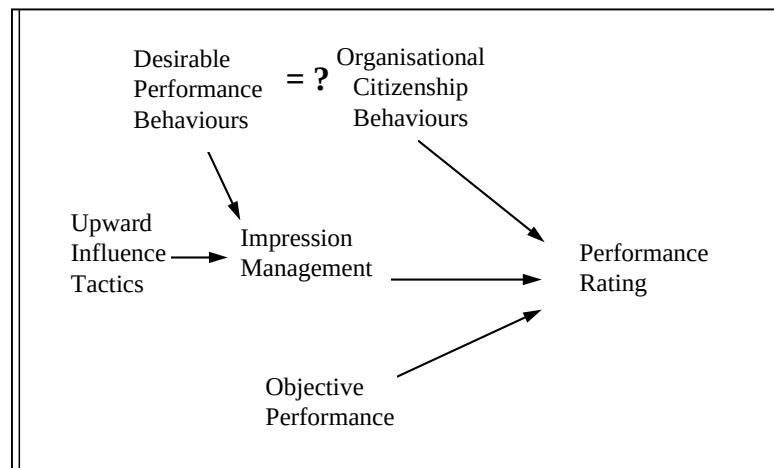


### 3.10.3 OCB and Impression Management

Leary & Kowalski (1990) stated that the use of IM techniques does not necessarily mean that the individual is not as committed as it may seem. Users may have genuinely high levels of commitment as well as being motivated to demonstrate high levels of OCB. Leary & Kowalski's conceptualisation of IM motivation is as follows:

- The goal relevance of impressions (characterised by expectations of interpretation in a positive manner, visibility to managers so that reward may be given, and individual differences such as high self-monitoring inclination).
- The value of image enhancement, which may differ over time. For example, salience may increase as the annual performance review approaches, especially where the performance appraisal is subjective. The recency of the observed behaviour may thus be able to bias the rating.
- The discrepancy between the desired and current image, either because people want to become better organisational citizens, or to repair a damaged image.

**Figure 3.13 Combining Figure 3.11 with OCB**



Bolino (1999) explored the role of impression management motivation in the context of OCBs, considering whether those who display good citizenship were really motivated by altruism, disposition to be helpful, or by image enhancement through undertaking extra role activities, not explicitly recognised or rewarded, and falling outside job definitions, but considered desirable by the organisation. Bolino suggested that Impression Management and OCB behaviours on the surface were identical, only the underlying motivation might be different. For example, volunteering for challenges provides opportunity for visibility of competence and knowledge to others in the organisation, and could be seen as self-promotion or good citizenship. Figure 3.11 could be adapted as shown now in Figure 3.13. Bolino's case is convincing, as the figure indicates, and is supported by Perlow (1998, p.354) who said that "whether one is motivated by genuine commitment to the organisation or by one's own self-interest, one's

behaviour will convey commitment to the organisation. ...More likely, they are rational actors with instrumental orientations who recognise that perceived “selfless” commitment to the organisation leads to personal success”. Bolino suggested that where an actor’s citizenship behaviour coincided with the preferences of the target, there was likely to be enhanced image achievement. Bolino felt that impression management motives might motivate citizenship, and that those who were trying to be seen to be committed might well be really committed to their companies.

This section has been included because of findings in this doctoral study, and this field had not been reviewed earlier in the project. The thesis now moves from the literature on the assessment of commitment, and strategies to enhance that assessment, to the outcomes of commitment assessment, which have implications for women managers in particular, if their commitment is assessed as lower than that of their male peers.

### **3.11 OUTCOMES OF ASSESSMENT OF COMMITMENT**

#### **3.11.1 Introduction to the Outcomes of Managerial Assessment of Commitment**

Having established what commitment means in the literature, defined by psychologists in the 1970s, with similar self-report measures still being used, the thesis has discussed a number of related areas which will be important in understanding the results of this doctoral study. These include the difficulties of measuring commitment in others, the potential influence of gender stereotyping, and the trend towards measuring commitment behaviours rather than attitudes. Also included are the use of impression management and the link with organisational citizenship behaviours and their similarity in terms of outcome even though the motivations may be different. The final part of this chapter deals with the outcomes of the assessment of commitment by managers. This gives some insight into the issue of managerial perceptions of women's commitment, the focus of this thesis.

#### **3.11.2 Perceived Commitment and Career Rewards**

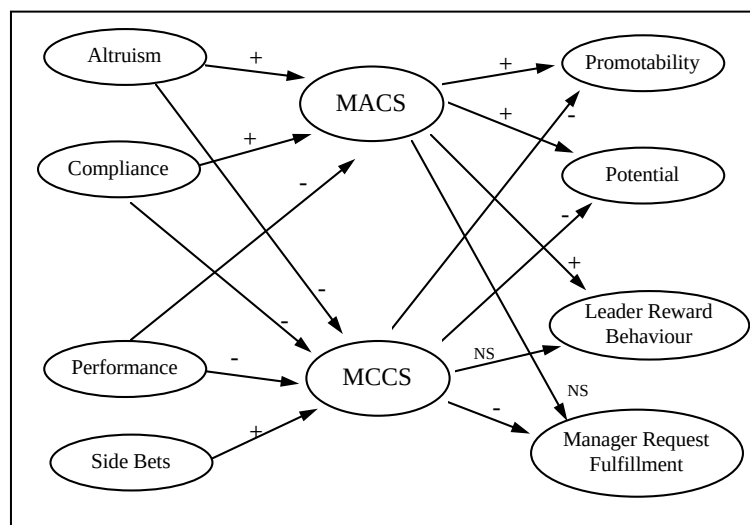
Only three studies were identified concerning managerially perceived commitment (Shore, Barksdale & Shore, 1995; Allen, Russell & Rush, 1994 and Allen & Rush, 1998). Shore et al commented that no previous studies had examined managerial perceptions of employee commitment. They undertook a survey of 231 managers in one US firm. About one sixth of the managers were female. Also in the study were 339 subordinates. (See Figure 3.14) Shore et al found that managerially-rated affective commitment (MACS) and managerially-rated continuance commitment (MCCS) were meaningful constructs, and that managers could distinguish between them and the organisational citizenship constructs of altruism, compliance and job performance. Results showed that employees with high managerially-perceived affective commitment were seen to be more promotable and to have more potential by their managers, whilst those with perceived high continuance commitment were seen to be less so. Shore et al said that:

“managers may tend to associate affective commitment with the managerial ranks and continuance commitment with lack of potential for advancement. This finding has implications for the importance of managerial perceptions of affective and continuance commitment since managerial input is often critical to promotion decisions.” (Shore, Barksdale & Shore, 1995, p1610)

They suggested that both managers and employees viewed affective commitment as more positive than continuance commitment, which was positively correlated with employee age, job tenure and organisational tenure, and negatively correlated with education. A limitation of their study was that the company still provided lifetime employment, and that therefore these results might not be generalisable in different contexts. Other limitations of the study

were that only 19% of the managers were rating more than one employee, there was a relatively small sample size for the analysis method used, and gender differences (if any) were not clearly reported. Nonetheless, Shore et al is an important study for this thesis, as it identifies clearly the importance of assessed high affective commitment as a label for promotability. If women are stereotyped to have less affective commitment, then that may illuminate why women in general are seen to be less committed despite OCQ evidence to the contrary, because the OCQ is so oriented towards measuring continuance commitment.

**Figure 3.14 Shore et al's Path Model for Managerial Perceptions of Employee Commitment**



(MACS = Manager-rated Affective Commitment, MCCS = Manager-rated Continuance Commitment. All links except 2 were significant at the  $p < .05$  level.)

The next study to be reviewed (Allen, Russell & Rush (1994) provides further evidence of that link, albeit with a sample of MBAs rather than practising middle and senior managers. They commented that:

"less attention is given to documenting how managers perceive who is a committed employee and who is not. Consequently, there is little, if any, empirical knowledge available regarding how work/family issues may affect perceptions of an employee's organizational commitment and how this perceived commitment may relate to subsequent organizational reward opportunities" (p445)

Allen et al used an experimental design with vignettes of male/female sales manager case histories of leave-taking, containing sample performance appraisal measures, including affective and continuance commitment items. Subjects had to use the case histories to decide what career rewards to offer. Allen et al found that short term leave (up to 3 months) did not affect perceptions of commitment for high performers whether male or female, but medical leave (taken mostly by males) was less of a career problem than parental leave (taken by females). Those taking parental leave were less likely to be recommended for an overseas

assignment, which could be a key developmental experience. There was a strong relationship between perceived organisational commitment and allocation of career development rewards. This is an interesting study, but as it was conducted as an experiment with vignettes, and the subjects were MBA students, average age 28, with only half having supervisory experience, it does not provide real evidence from practising senior managers.

A more recent field study by Allen & Rush (1998) explored the effects of OCB on performance judgements. They found support for the positive influence of OCB on performance ratings, on perceived affective commitment and reward recommendations. They also found OCB had an influence on liking by the supervisor. It seems that supervisors are more likely to have regard for those who exhibit good citizenship behaviour. Their findings suggested that whilst previous researchers have considered liking by supervisors to be a source of bias in performance judgements, it may actually be a reflection of good performance. This study confirms the importance of high perceived affective commitment for career reward recommendations, as well as the importance of displaying OCBs to managers to demonstrate affective commitment.

### **3.12 SUMMING UP LITERATURE REVIEW ON COMMITMENT**

#### **3.12.1 Overview of Literature in Chapter 3**

This chapter has reviewed the literature on commitment, examining the construct development of commitment, and identifying the wider term of work commitment as more applicable as a conceptual underpinning for this study. The literature on individuals' meanings of commitment is also identified as being of significance, given that this thesis is trying to understand what managers mean by the term "commitment" when women's commitment is being perceived to be less than that of their male peers. An overview has also been given of how commitment is formed in the individual/organisational interaction as part of the psychological contract.

The sections on the assessment of commitment indicate the difficulties in measuring this intangible concept, and its susceptibility to influence through the use of impression management. The link to organisational citizenship behaviours which often cannot be easily distinguished from impression management strategies has been followed by a review of the literature on outcomes of managerially perceived commitment. This is important because of the consequent career rewards which are likely to result from managerially perceived high affective commitment.

#### **3.12.2 Perceived Commitment and Opportunities for Challenge**

Evidence from the literature has been presented which indicates that high perceived affective commitment leads to more career investment and rewards. A key factor for aspiring women managers is to have an equal opportunity for challenge, through which the individual can grow in competence, in experience and in confidence.

From a career management perspective, commitment and organisational investment in job challenge have been linked by Arthur & Kram (1989). They considered the level of commitment of an individual and the level of job challenge given by the organisation which would offer the optimal individual/organisational fit, resulting in career progression and enhanced organisational performance. Managers would have to form perceptions of the individual's commitment for such decisions about offering job challenges. A consideration of gender differences would have been useful in their discussion, as Ohlott et al (1994) found that women managers were likely to be given less developmental job challenges than male peers. It is possible that managerial perceptions of women's commitment may be part of the explanation as to why that may happen.

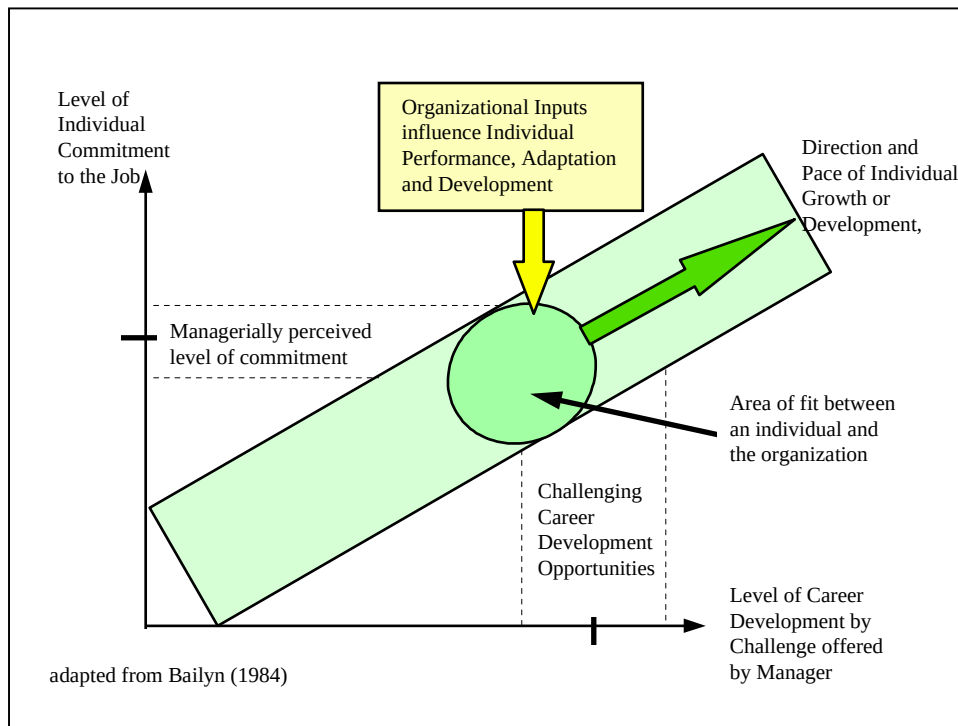
**Figure 3.15: Pace of Career Development and Perceptions of Commitment**

Figure 3.15 shows a model which this researcher has adapted from Arthur & Kram (1989) based on Bailyn (1984) which originally showed the individual-organisational fit between organisational commitment and the level of job challenge allocated, where going outside the fit area could lead to boredom (if commitment exceeded the level of challenge given) or worry (if the level of challenge exceeded the amount of commitment given). The model has been adapted to indicate that the growth (pace and scope) of an individual depends on the manager's perceptions of commitment, and the level of challenge given. As Shore et al (1995) indicate, managers give more development to those whom they perceive to be highly committed, so those individuals advance at a faster pace acquiring more career-enhancing experiences.

The converse of this is that where commitment is perceived by the manager to be less (as often happens in the case for women), they would be given lesser developmental opportunities, and their career growth and pace would fall behind that of their male colleagues. With less development, and hence eventual less competence, they would have fewer chances of becoming managers, and may then fall into the category of "career technical professionals by default", instead of managers or career technical professionals by choice, which in turn lowers motivation and commitment (Mainiero, 1986). This may lead to commitment being stronger on the continuance element than on the organisationally desired affective dimension.

### 3.13 THE RESEARCH GAP AND QUESTIONS

#### 3.13.1 Adding to Previous Work

Randall (1990) said that grounded studies of commitment would help researchers to be sure that they were clear in what they were measuring and what the participants were understanding.

“To understand the influence of OC on work outcomes, researchers may need to build grounded models. Past theoretic development in OC-work outcomes research has largely been made independent of and uninformed by the participant’s understanding of the phenomena” (p.376)

Little work has been found in this field using a grounded approach, other than Herriot et al’s work on employee expectations in the psychological contract, which is similar but had a different focus of violations to expectations. Benkhoff (1997) used a preliminary grounded stage in her study, starting with interviews with managers to elicit some appropriate measures which would be meaningful for subordinates in the particular setting of customer service performance in small branches of banks in Germany. This present study will go deeper into the meanings held by senior, middle and junior managers in large engineering organisations about their own commitment and how they recognise it in others.

This work will build on the strand of commitment research into subjective meanings suggested by Reichers (1985) and started by Randall et al (1990), together with the work of Shore et al (1995) on managerial perceptions of commitment by examining what commitment means to engineering managers at different levels in the UK and Sweden, and the impact of gender on those meanings. Although a few studies undertaken in the 1980s have examined what commitment meant to workers (eg concern for quality; clocking in on time; not going to the cloakrooms for a cigarette, etc), there appears to be a gap in the literature, where no papers have been found which examine **what commitment means to managers at different levels in large engineering organisations, particularly senior managers.**

Commitment may have a different meaning to managers than to management researchers (who approach this mainly from a psychological perspective, based on a conceptualisation derived at a time when employers were very concerned about turnover and absenteeism) and to employees in general. No research has been identified which examines how gender and managerial level may impact male managerial meanings and perceptions of women’s commitment, and the impact that might have on career development opportunities for graduate women. This may be a particularly important issue in an industry such as aerospace where long-term careers have been the norm, but are changing, and where



commitment is soon to be formally evaluated for Chartered Engineer status in the UK. For several reasons, it is therefore timely to undertake such a study as this.

A contribution will be made to the women in management and women in engineering literature, building on the work of Bailyn, particularly her 1993 book on work-life balance in which she suggests that managers may have different meanings of commitment to those of subordinates, and that a comparison with the situation in Swedish organisations would be useful. This thesis also follows the work of Evetts (1993, 1994a&b, 1996, 1997, 1998) whose sociological research was undertaken in the UK aerospace sector. Her work on the motherhood choices of women engineers is particularly relevant to this study, as it highlights the women's perceptions of managerial attitudes at that time towards those seeking maternity breaks and periods of part-time work. Her fieldwork was undertaken at the beginning of the 1990s, and this study brings the women in aerospace engineering context up to date.

### **3.13.2 The Research Questions**

The research questions, derived from the literature, have been kept broad, to guide the interviews and research analysis without constraining too tightly the possible explanations emerging from the data. The questions below reflect the focus of the study into the meanings and signalling of commitment, as well as assessment of commitment, to gain a deeper understanding of the whole process.

The overarching question was originally: Why are women managers still reported to be less committed at work than their male peers in engineering organisations?

As previous research showed few differences in the level of commitment between males and females, the evidence needed to address the overarching question was a clear understanding of the meaning of the term “committed” as used by managers rather than as conceptualised by academics. To ensure a better understanding by looking at extremes, the very male-dominated aerospace field was chosen for the research site. To gain maximum contrast on the background dimension of social and organisational support for career women with children, so often proposed as the solution to the problem of women being perceived to be less committed than men, the sample was selected from two countries, the UK and Sweden.

- 1. What is the meaning of “commitment” to engineering managers in the UK and Sweden?**
- 2. Does Gender influence the meaning of commitment held by engineering managers in the UK and Sweden?**
- 3. Does Managerial Level influence the meaning of commitment held by engineering managers in the UK and Sweden?**

Whatever the meanings of commitment are to engineering managers and subordinates, this is likely to impact the perceptions which managers form of their subordinates' commitment, as their own subjective meanings and experiences influence what they are seeking and recognise as evidence of commitment in others.

#### 4. How is commitment signalled and assessed?

Little has been found in the literature on the signalling and assessment of commitment, although an overview of work performance measurement research has been included. The answer to Question 4 should help an understanding of why women managers are perceived to be less committed at work than men.

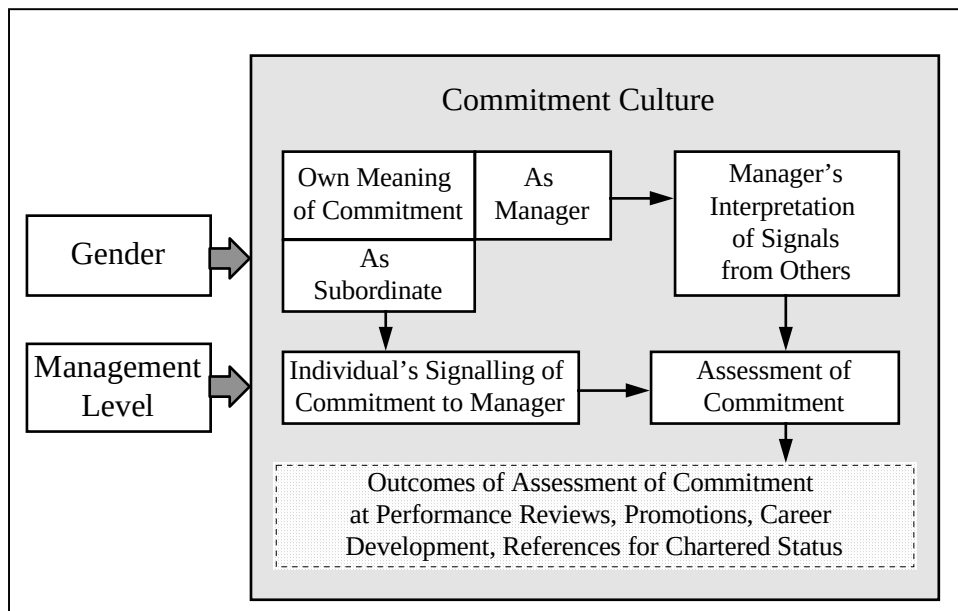


**Figure 3.16 Operationalisation Map**

Figure 3.16 gives an outline of how the study is to be operationalised. Previous research findings (Shore et al, 1995; Allen, Russell & Rush, 1994) have already identified the outcomes of commitment assessment, and so that is not an active part of the study. The focus is on meanings and assessment, with gender and managerial level as key demographics in the study, and British/Swedish contrasts where appropriate, not for cross-cultural comparisons but to allow two extremes of the dimension of family support from organisations and society. The thesis now moves on to Chapter Four, where the philosophical approach taken, and the methodology of the study will be described.

## CHAPTER FOUR: METHODOLOGY

### 4.1 INTRODUCTION TO CHAPTER FOUR

This chapter first introduces realism as the philosophical approach to the research, exploring the epistemological options through consideration of the research question. The philosophical underpinnings of any doctoral research project are important, as they indicate the assumptions made about the nature of the phenomenon by the researcher (the ontology), and the way in which evidence of that phenomenon can be ascertained (the epistemology), leading through carefully designed research to new knowledge about the phenomenon. Morgan & Smircich (1980, p.499) say that

“the range of possible approaches to qualitative research indicates clearly that the dichotomization between quantitative and qualitative methods is a rough and over-simplified one. Qualitative research stands for an approach rather than a particular set of techniques, and its appropriateness – like that of quantitative research – is contingent on the nature of the phenomena to be studied.”

The philosophical approach is therefore reviewed through the research issue. Next, consideration is given to methodological choices, and a rationale is made for the decisions in the research design. A major feature of the design was the choice of a two-country study. There was a preliminary study which led from the wider issue of barriers to women engineers' careers to the focus on perceptions of commitment, with women's careers in engineering management as the context instead of the focus. A brief report of those findings is included.

Sampling and the three organisational settings are then described. This is followed by a detailed account of how the interviews were conducted. The strategies for data analysis are described, clarifying how the categorisation of the interview data was derived, using QSR NUD\*IST software to manage the data.

A report follows of the triangulation through gathering of further data from the interviewees after the interviews. The instruments used were the Career Anchors Inventory, and an instrument to obtain managers' ratings of the importance of the elicited meanings of commitment. Secondary data was also gathered, in the form of annual appraisal forms and guidelines, recruitment brochures and annual reports. The chapter ends with consideration of quality and rigour in the study.

## 4.2 THE PHILOSOPHICAL APPROACH

### 4.2.1 Overview of the Approach

The study is an exploratory piece of research, aiming to gain a deeper understanding of, and extend knowledge about the meaning of “commitment”, the way it is used and assessed by managers, and whether it has gendered meanings and outcomes. The study is theory-building, and although the design is qualitative in nature, and a grounded approach has been used for the analysis, the researcher did not start with the *tabula rasa* as suggested by Glaser & Strauss (1967) in their description of grounded theory. The researcher started with a thorough review of the literature before the design was developed. Through theoretical selection of the sample, an element of proposition-testing is incorporated into the design to guide the analysis. Through questions relating to gender and managerial level, the data are examined, and patterns are sought which may give rise to explanations of women engineers’ sometimes alleged lesser commitment, in relation to male meanings and evaluations of commitment. Later studies could then develop hypotheses from the findings.

### 4.2.2 Ontology - The Reality to be Discovered

When exploring social issues, researchers have to consider appropriate philosophical approaches for their studies, and design the research accordingly, taking into account the nature of the phenomenon under study and the influence of their own “world view” of reality. Recently, a number of authors have described the various approaches to research, notably Layder (1998, 1993), Blaikie (1993), Denzin & Lincoln (1994) with their comprehensive set of readings from a number of leading academics on qualitative methodologies, and Neumann (1997). An excellent overview of management research philosophy is given by Easterby-Smith, Thorpe & Lowe (1991).

Approaches range from the scientific and objective, usually labelled “positivist” to the subjective, usually labelled “interpretive” although a wide range of approaches falls under that heading. Positivist ontology takes the position that society exists in a regular, scientifically observable state, and that the researcher should be in control and totally objective. The initial broad area of interest of this study was the barriers to management careers of women engineers. Earlier positivist studies in this area focused on women’s psychological differences from men engineers and from other women from an objective perspective (eg Jagacinski, 1987). Such a perspective ignores the important context.

The eventual focus of this study is the meaning of commitment held by managers and the impact of those meanings on their perceptions of women engineers’ commitment. Previous research held that there was no significant difference in men and women’s organisational commitment when measured quantitatively. Such positivist approaches presume that the nature of the world (with regard to the question) can be objectively measured and general laws identified which can explain the social reality. Yet the view that women as potential managers are perceived by men to be less committed in a work context than men is still

frequently expressed in the press and in research on women in engineering. (The term “commitment” seems to be used outside academia as rather broader than just organisationally focused commitment, but that is probably the greater part of it in a work context.) Is the previous organisational commitment research not to be believed (ie that there is no gender difference in levels of organisational commitment) despite checks on its validity and reliability, or could it be that the researchers’ conceptualisation of commitment has led to the measurement of some particular kind of commitment which is not conceptually the same as that referred to above, by the press and by males in organisations?

Further quantitative studies may not shed light on this issue, which first needs to be explored at an in-depth level with the research subjects themselves. The positivist stance of objective, scientific studies of human interaction processes is therefore not considered appropriate for the research questions of this study. The alternative approach of interpretive subjectivity sees the world consisting of meanings, culture and social institutions interpreted by social actors, with reality existing only through their individual experience of phenomena and shared accounts of them. Blaikie (1993) says:

“For Interpretivism, the social world *is* the world perceived and experienced by its members from the ‘inside’. Hence the task of the social scientist is to discover and describe this ‘insider’ view, not to impose an ‘outsider’ view on it.” (p.176)

This researcher believes that people hold subjective meanings of commitment, which may be surfaced through guided conversation. This inevitably means that the researcher shares in the construction of the surfaced expressed meanings as they are voiced on that occasion, through that intervention. Meaning was defined in Chapter 2 as people’s understanding of a phenomenon which explains, rationalises and guides their actions (Jary & Jary, 1991). Blaikie (1993) talks about the aim of Interpretivist studies as an understanding of the “meanings and interpretations, the motives and intentions which people use in their everyday lives, and which direct their behaviour.”

Account has to be taken of the external, socially constructed context of gendered engineering management and workplace and its impact on the careers of women engineers through gendered role expectations. This impact is compounded by pressures from the wider social culture, where women brought up before the 1960s were expected to be committed above all to the private domain of the family. If they had to venture into engineering organisations, they were expected to stay within the supportive role of the secretary or cleaner, or at most, act as an assistant, a draftswoman, or a technician under the patriarchal control of male management (Cockburn, 1992). Society sets boundaries for young girls: the garden, the street, the hours outside the house, whilst boys are encouraged to break those bounds, to challenge the limits and create and take opportunities. Socialisation experiences of men are also based on gendered expectations, that they should explore, be active, and be leaders, if not at work, then within the family. This is likely to have an impact on how men view commitment at work, as managers.

### 4.2.3 Epistemology - The Evidence

The words of the subjects of this research, the engineers have to be interpreted, to get the answers to the research questions, but these have to be set in the context of their organisational roles and the society in which they live, which are socially constructed. Reality can be observed or experienced in multiple ways, and there is seldom only one valid approach and answer to a research question. According to Wilson (1996):

“It would be naïve to think that there exists a ‘true’ response to any given question, because every reply is an artefact produced by the particular interviewer’s interaction with a specific respondent in a given context” (p.117)

This applies not just to the researcher interpreting statements in interviews, but also to the subjects’ interaction and understanding of commitment at work. Each person’s experience of commitment, each interaction of commitment appraisal, and each person’s psychological contract of commitment to their organisation is unique, and their expression of their understanding is also an artefact produced by that context. However, similarities and patterns of experience may be discovered when analysing the responses from the men and women engineers, throwing light on the interaction process for the women and men at work when commitment is assessed.

### 4.2.4 The Case for a Realist Approach

Realism claims that reality is captured through three domains: objectively observed empirical events; actual events or realities, which may be experienced subjectively and interpreted by others; and real processes, or the underlying mechanisms which generate events, from which explanations are sought based on the empirical or actual domain data (Bhaskar, 1989). Bhaskar says that “the empirical is only a subset of the actual, which is itself a subset of the real” (p.190). He goes on to state that the realist approach affirms that objects of scientific knowledge such as causal laws exist outside that knowledge, adding that realism takes account of the nature or general characteristics of the world, which “must be structured and differentiated and characterised by emergence and change if it is to be a possible object of knowledge for us”.

Realism is a fairly recent perspective in its own right, which criticises positivism for saying that one thing precedes another without adequate understanding of the intervening conditions. Burrell & Morgan (1978) describe four discrete paradigms (radical humanist, radical structuralist, functionalist and interpretive) portrayed in a matrix with axes of subjective/objective and sociology of radical change/sociology of regulation. However, realism is not clearly identified in that major study, other than that it falls within the positivist camp. Many organisational studies have fallen within the functionalist paradigm, where social structures are to be understood in terms of the functions performed, although a countering interpretivist movement has been strongly challenging the functionalist standpoint in the last 25 years.

Burrell & Morgan describe the interactionist challenge from George Mead coming from within functionalist sociology much earlier, 'as characteristic of the least objectivist fringe of the paradigm', from which emerged the Chicago School of Sociology's symbolic interactionists. Mead said that people communicate by using learned symbols, and a differentiation between self and "me as other" which enables role-taking of both a 'single other' and a 'generalised other' (Rose, 1962). People act according to their understanding of how the other will perceive the action. There are shared understandings, and expectations for people to behave according to roles. Under a symbolic interactionist approach, it could be held that women engineers aspiring to be managers, both those who are mothers and those who have decided not to have children, are not behaving according to socially expected roles when they continue to seek career progression. This could impact how their commitment is perceived by their mostly male managers. However, whilst that is considered important for this research, such an approach is limited in its rejection of objectively observed empirical phenomena, and this researcher believes in a wider reality.

Another potential perspective for this research is the feminist approach, which claims that science has been socially constructed by males, and that others may have different experiences to those of males, hence there is more than one reality. Feminist epistemology focuses on the communication of women's experiences in society, particularly through sharing, through life histories, and visions for change for a better world for all. There are two main streams in feminist philosophy: one is to change the male perspective to broaden it and make it inclusive for all; the other is to reject the male-constructed science with its masculine dominance and oppression, and establish a female standpoint. Postmodernists criticise this on the grounds that there is not just one female reality but many constructions of reality, subject to domination by various groups, which may be in conflict (Blaikie, 1993; Harding, 1986). The feminist approach has not been adopted for this study, because the realist approach fits better with the exploratory nature of this study, given that the focus at the outset was not grounded in power relations between genders, but genuinely open to other explanations of why women were perceived to be less committed.

Realism's epistemology seeks to understand the intervening mechanisms which may indicate, though not prove, causal relationships. The realist approach is to ask 'why', which may be explained by 'how' and 'what' questions. This study asks why women are seen as less committed, through asking what men and women mean by "commitment", and exploring how male perceptions of women engineers' commitment may impact the commitment assessment process. This study seeks to make sense of the men and women engineers' meanings and interactions when commitment is assessed. Those meanings have to be analysed and interpreted by the researcher as an informed observer, keeping the analysis close to the language of the research subjects so that their meanings are preserved as far as possible.

#### **4.2.5 Use of Models**

An important feature of realism is the use of models, with which the researcher attempts to predict the structures and mechanisms underlying the phenomenon under investigation, and to further develop such models following field experience, to build theory. Every interaction within society (within organisations, for example, between male and female engineers when commitment is shown) 'is generated anew' (Keat & Urry, 1975) within the structure (for example, the hierarchical relationship between manager and subordinate), and is formed and constrained by the structure, in a dynamic process, within a wider context.

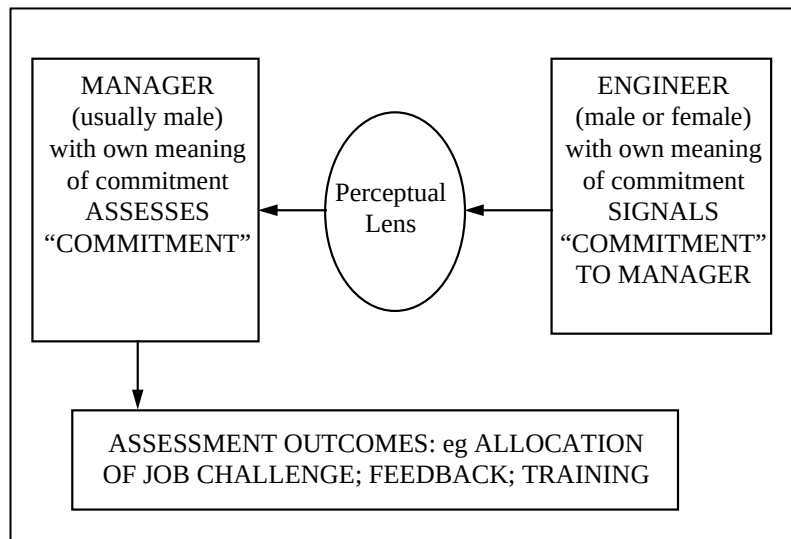


**Figure 4.1 The Initial Model of the Commitment Assessment Process**

Figure 4.1 maps out the starting point for this study into the process of meanings and assessment of commitment, indicating the potential impact of gender and managerial level as part of that process. This model will be developed at a more abstract level in later sections of the thesis.

#### 4.2.6 Conclusion to Philosophy Section

The two main philosophical approaches of positivism and interpretivism differ over whether the natural laws of science can be applied to the social world and whether scientists have socially constructed the natural laws of science (Blaikie, 1993). Acknowledging both perspectives as differing views of a wider reality enriching understanding is Realism, recognising reality through observed empirical events; actual events; and real processes that generate events. As explained above, realism's epistemology seeks to explain rather than predict the underlying mechanisms and structures of society. Bhaskar (1989) says that:

"We will only be able to understand the social world if we identify the structures at work that generate those events or discourses. ... Those structures are not spontaneously apparent in the observable pattern of events; they can only be identified through the practical and theoretical work of the social sciences." (p.2)



This realist approach will help to illuminate the process of managerial evaluation of men and women engineers' commitment through the interpretation of meaning. This, therefore, is the philosophical approach chosen.

## **4.3 METHODOLOGICAL CHOICES AND RESEARCH DESIGN**

### **4.3.1 The Exploratory Approach**

As the aim of the study is to explore the process whereby women's commitment is challenged whilst men's commitment is taken for granted at work, a flexible and open-minded approach is needed. Through exploration and description, it is hoped that some explanations may be suggested as to why that process happens as it does. The goal is to give a rich account of the process, to present the context, and categorise types of phenomena which form part of that process. The results should be reviewed for any contradictions to prior beliefs about the subject.

### **4.3.2 Choice of Case Studies**

Hartley (1994, p.212) suggests that "case studies are also useful where it is important to understand those social processes in their organizational and environmental context". She suggests (p.214) that "a survey may find differences in, say, organizational commitment, but a comparative case study can tease out what organizational commitment means to a Japanese worker compared with a British or German worker". (N.B. No such study has been identified in the literature.) This study seeks to ascertain what commitment means to British and Swedish managers in engineering organisations.

Case studies of individual engineers is the preferred strategy for this project, and is appropriate for the realist approach chosen. Tsoukas (1989, p555), describing the realist perspective, says that 'idiographic studies are either exploratory or explanatory in nature, and they usually have utilized, though this may not be exclusively, the case-studies form'. There will be no claim to statistical generalisability in this study, but the cases have been chosen for typicality of top women and men engineers in advanced engineering organisations, and actually include all the top layer of women engineers in the organisations selected. The nature of the research question meant that both male and female engineers should be included. The primary unit of analysis is the individual engineer's meaning of commitment, and the design is for multiple cases, which may rely on multiple sources of evidence. Investigation of each case may enable patterns around the contingencies which lead to "events" to be identified as emergent propositions of theory. As Yin [1994, p10] says,

"case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study, like the experiment, does not represent a "sample" and the investigator's goal is to expand and generalise theories (analytic generalisation) and not to enumerate frequencies (statistical generalisation)."

To facilitate a better understanding through cross-case comparison, cases were chosen from three organisations, one in the UK and two in Sweden. These are two countries with very different levels of organisational and social support for working parents, and have been chosen because previous researchers indicated that lack of affordable childcare and problems with career breaks were key factors in hindering women's success in the UK (Evetts, 1993; Devine, 1992). The analysis of the data has been guided by the research

questions relating to gender and managerial level. Additional cases were included until the analysis indicated that there would be little theoretical gain from more data, the reaching of closure or theoretical saturation. The Eisenhardt (1989) road map (Table 4.1) for case studies has been a most useful tool in guiding this research.

Criteria for success are identification of practitioner meanings of commitment set in context of the current conceptualisation of “commitment” in the literature, and of gender and managerial level differences in meanings.

**Table 4.1 The Eisenhardt Road Map for Case Studies**

| Step                               | Activity                                                                                                          | Reason                                                                                                                                                                                      |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Getting started                    | Definition of research question<br>Possibly a priori constructs<br><br>Neither theory nor hypotheses              | Focuses efforts<br>Provides better grounding of construct measures<br><br>Retains theoretical flexibility                                                                                   |
| Selecting cases                    | Specified population<br><br>Theoretical, not random sampling                                                      | Constrains extraneous variation and sharpens external validity<br>Focuses efforts on theoretically useful cases – ie those that replicate or extend theory by filling conceptual categories |
| Crafting instruments and protocols | Multiple data collection methods<br><br>Qualitative & quantitative data combined<br>Multiple investigators        | Strengthens grounding of theory by triangulation of evidence<br>Synergistic view of evidence<br>Fosters divergent perspectives and strengthens grounding                                    |
| Entering the field                 | Overlap data collection and analysis, including field notes<br>Flexible and opportunistic data collection methods | Speeds analyses and reveals helpful adjustments to data collection<br><br>Allows investigators to take advantage of emergent themes and unique case features.                               |
| Analysing data                     | Within-case analysis<br><br>Cross-case pattern search using divergent techniques                                  | Gains familiarity with data and preliminary theory generation<br>Forces investigators to look beyond initial impressions and see evidence through multiple lenses                           |
| Shaping hypotheses                 | Iterative tabulation of evidence for each construct<br><br>Replication, not sampling, logic across cases          | Sharpens construct definition, validity and measurability.<br><br>Confirms, extends and sharpens theory.                                                                                    |

| Step                 | Activity                                                                     | Reason                                                                                                                                                                          |
|----------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | Search evidence for “why” behind relationships                               | Builds internal validity                                                                                                                                                        |
| Enfolding literature | Comparison with conflicting literature<br>Comparison with similar literature | Builds internal validity, raises theoretical level, & sharpens construct definitions.<br>Sharpens generalisability, improves construct definition, and raises theoretical level |
| Reaching closure     | Theoretical saturation when possible                                         | Ends process when marginal improvement becomes small.                                                                                                                           |

Eisenhardt (1989, p.533)

#### 4.3.3 Choice of Data Collection Methods

The researcher considered a range of data collection methods, including observation, survey, analysis of text and documents, and interviews. These could be used singly or in combination as appropriate, in alignment with the philosophical perspective taken, which should legitimate the evidence put forward. Observation would not be appropriate for meanings of commitment to be expressed, nor would a questionnaire be likely to elicit deep meanings from respondents, when they do not normally verbalise such meanings but share an understanding of what commitment means as a “gut feel”. Questionnaires would be unlikely to gain the level of openness needed from engineers to answer questions about possible gender stereotyping in relation to commitment, and flexibility was needed to adapt questions as necessary, to follow through items of interest. Repertory grids (Fielding, 1993) were another option which would have elicited constructs, but a richer picture was needed for those constructs. It was felt that the gender issues would be difficult to surface without a relatively long interview. Interviews with open questions was therefore the chosen method. The realist approach also allows for quantitative methods to be used, where appropriate, as well as documentary evidence such as company reports, and an open mind was kept to consider these methods, should they seem useful during the project.

#### 4.3.4 Choice of Cross-Sectional rather than Longitudinal Design

Cross-sectional designs usually consider a number of units (which could be people, organisations or relationships, for example) in different contexts, in theory-testing quantitative studies checking deductively for existence of specific causal relationships identified by empirically testing hypotheses developed from the literature. Alternatively, in theory-building qualitative studies, explanations are sought inductively from data, resulting in propositions to be tested later, to build the theoretical knowledge on the subject. Longitudinal design studies are usually undertaken within a single unit, or a small number of contrasting units, over a particular time period, and allow for in-depth studies of process and change. However, the nature of this study’s research question (ie the impact of gender on the meanings and assessment of commitment) would not suit a longitudinal design. Managerial perceptions of

commitment are cumulative, and may be built up over a very long period over a number of interactions, without there necessarily being many specific observable incidents of great significance to give insight to the researcher using non-participant observation, even over long periods in the work setting. However, it is possible to surface managerial meanings in discussion at one point in time. The decision was therefore for a cross-sectional design.

#### **4.3.5 Choice of Level of Researcher Involvement**

Choices have to be made with regard to research design over the level of involvement of the researcher. Whilst the “scientific” view is that research results are only valid if the researcher is independent of them, ie value-free, the interpretive position is that the results have to be interpreted by the researcher, and hence this allows for some or even total involvement (as in the case of action research). As stated in the Philosophy Section above, the realist approach acknowledges that both qualitative and quantitative studies may be appropriate for exploring the nature of processes to get a view of the underlying reality. This researcher’s familiarity with the particular industry allowed meaningful discussions with engineers to surface their meanings of commitment, and its evaluation process, and hence obtained a better understanding of the data. But the researcher has been involved both in the construction of the expressed meanings in the interviews, and in the interpretation of the data at all stages of analysis and reporting.

It should be noted that, during the analysis, where the researcher felt that it would be too subjective to impose on the interview data her rating of importance of the elicited meanings of commitment, then it was decided to obtain quantitative data from the subjects themselves through postal questionnaires asking for ratings of importance of the elicited meanings. The career anchor inventory was also completed by respondents, with no involvement from the researcher.

## **4.4 RATIONALE FOR CASES FROM BOTH THE UK AND SWEDEN**

### **4.4.1 Rationale**

This is a study at the individual level of engineers' meanings, not focused on comparison between organisations or countries. However, approximately half the cases have been chosen in Swedish organisations to reflect the allegedly better organisational flexibility, childcare availability and social benefits for working women in Sweden (European Commission, 1997). This provides a useful addition to the range of workplace contexts in which women engineers function, which may indicate the importance of structural support issues in commitment and careers. This potential advantage of identifying differences in contrasting social situations introduces the element of cross-cultural issues inherent in any two-country study.

### **4.4.2 Language**

Realism takes the view that lay language is key to understanding meanings, in line with symbolic interactionist and some other interpretivist traditions. Language is actually very important in this study, because of the data collection sites in two countries. The Swedish engineers in this industry are used to working in English, which is used for management training as well as for technical reports, conference papers and joint projects. The researcher has lived many years close to the particular industry in both countries, and has worked as an English teacher to Swedish engineers, and as a translator in Swedish.

There is possible bias in that the word "commitment" does not easily translate into one Swedish word. Dictionary definitions include Swedish words for giving an undertaking (åtagande), involvement (engagemang) and duty (förpliktelse), which would cause bias in explanation of meanings, emphasising those sub-concepts above other possibilities. If interviews were conducted in Swedish, then the text would have to be translated into English for analysis, which would introduce bias. If interviews were conducted in English, then it might be difficult to get the depth required from the conversations. After the preliminary Swedish focus group meeting (held mainly in English), it was clear that engineers in this industry were sufficiently in command of English for that language to be used for the Swedish interviews. Accordingly, in the main study, the introductions were made in Swedish, but the rest of the interview was conducted in English, with the offer of explanations in Swedish of anything not understood by the interviewee, as recommended by Lawrence (1988). This had the advantage of allowing the concepts at first level coding to emerge from the interviewees' own English words, keeping closer to the original data.

## **4.5 PRELIMINARY INTERVIEWS AND FOCUS GROUP MEETINGS**

### **4.5.1 Setting up the Preliminary Study**

As more of a focus was needed for this doctoral project, which started by looking overall at women engineers' careers, informal meetings were held with six female engineers from three companies. Two focus group meetings were also held, one with four male engineers at lower/middle management levels in a leading aerospace company in the UK, and another with five Swedish female engineers in the same industry (including the first female vice-president of a technical division), asking them what they saw as the key barriers for women engineers to overcome to achieve career success. Focus groups can allow for productive discussions, allowing time for participants to reflect while others talk, to provide contrasting positions, and spur memories and opinions in others (Lofland & Lofland, 1995). These meetings were set up through personal contacts, and were held at the university, at the researcher's home, and at a major Swedish company's offices. The meetings were exploratory, informal, and were not taped, although notes were made immediately after the meetings. The researcher noted the difficulties of controlling focus groups, and of recording data from memory, and it became clear that one-to-one semi-structured interviews were needed for the main study. These meetings resulted in the focus on commitment for the study.

### **4.5.2 The Preliminary Study Findings**

The issue of commitment and women's family responsibilities was frequently raised quite early on, without prompting, in preliminary focus group discussions by the British men, but later in the conversation by the British women. Commitment seemed to be a concern for the British male engineering managers, in considering promotion for women subordinates, given that the entry competence level is equal for men and women. They said that there is such an investment and such a risk in putting someone in a key position in this industry, and such competition from other highly qualified graduates, that perceived commitment (assuming competence is the same) can be the key to promotion for the aspiring future top manager. The male engineers seemed to think that women had to be one hundred per cent committed to organisation and career, in order to be seen as high-flyers. They tended to see commitment as something measurable in percentage terms, as a ratio of work to outside-work involvement and dedication. Women could not be totally committed to both career and family, according to the British men.

The women engineers did not all agree on this, some feeling that commitment could expand when necessary to allow total commitment to both work and family. One woman indicated that it could grow to fit the need, in a similar way as a mother's love for an additional child did not diminish the love for the existing children. This fits with Marks (1977), who described two competing models with regard to commitment. These were the scarcity and the expansion approaches to human energy, which could be either finite and spent in a particular way, or expansive. On the one hand, the family role could be seen as draining, whilst on the other, it

could be seen as productive, supportive and stimulating. Kaldenberg, Becker & Zvonkovic (1995) stated that commitment to one endeavour need not lead to reduced commitment in another, and they said that despite the fact that society imposes greater care-giving responsibilities on mothers rather than fathers, “we also recognise that many mothers maintain high professional aspirations which children do not mute” (p.1362). Most of the women engineers in the pilot sample (British and Swedish) felt that they had demonstrated enormous commitment to their careers by going through university engineering courses, often uncomfortable as the only female in the class (although some had enjoyed that special status), and then going into male-dominated engineering organisations. If they were not committed, they would have left engineering at an early stage. They were now totally committed to their organisations and careers, and saw “commitment, professionalism and integrity” as key qualities in the promotion stakes.

According to the British women engineers, another indicator of their commitment was the decision to remain childless in some cases, or to take only the briefest of maternity breaks. Three of the six British women engineers said that they were not going to have children because of their career, and two who were planning to have children eventually felt that their career would be put on hold. None actually had children, though one woman was determined to manage both children and a top career. These early findings reflect the research of Evetts (1993, 1994) who undertook qualitative career studies of 15 UK women aerospace engineers, finding that they did not think it possible to combine a top career and family responsibilities.

In marked contrast, three of the five Swedish women engineers in the focus group had children, and they expected to compete for senior level jobs eventually. One was on “consultancy terms” whilst having pre-school age children, but had a right to return to normal terms later. This meant that she was able to work on company premises or from home as necessary. One younger woman was still single, and the eldest woman, a divisional vice-president, said that she had come through the “glass ceiling” when it was impossible to have a top career and a family, so she and her husband had come to terms with being childless. This ties in with the work of Wahl (1992), who found that over 80% of the Swedish postgraduate women engineers in her sample were married and had children. The Swedish women engineers seemed to feel much more comfortable in their male-dominated environment than their UK counterparts, which did not fit in with the Swedish literature from interviews in the late eighties. However, this Swedish organisation had undergone a major campaign to change corporate attitudes two years previously, which had an impact on the organisational culture.

#### **4.5.3 Shift in focus to Perceptions of Commitment**

These preliminary meetings suggested that the women engineers in the UK and in Sweden felt that they were totally committed to their organisations and careers, whilst their male peers were still challenging this claim. This led to the shift of focus of this doctoral study from



an investigation of general barriers to women engineers' career success to a very focused barrier: the managerially perceived commitment of women engineers.

## **4.6 RESEARCH METHODS: THE MAIN STUDY**

### **4.6.1 The Participants**

Approaches were made by the female researcher (who was familiar with the industry in both countries) to senior contacts in three aerospace organisations to identify matched pairs of male and female engineers across three broad management levels from directors to project leaders and technologists, who would be willing to take part in a study researching women and men engineers' careers in the UK and Sweden. It was not considered desirable to give much detail on the emphasis on commitment, as unprompted meanings of commitment might be revealing when analysed, as indeed proved the case. However, a one-page summary of the research was given to the senior contacts in each of the three organisations to facilitate access. Thirty-five people were selected in total, plus two senior Swedish managers who gave brief interviews. There was one substitution.

In the British company, UK-A, the contact was a director, who offered access through the personnel manager. The potential interviewees were then approached by the contact and the researcher, and meetings were arranged. Matching was on the basis of age, qualifications, similar type of department and job title, and as Table 4.2 shows, there were good matches. The contact director would have matched the female unpaired director at the top of Table 4.2, but as the interview was delayed and carried out later, the opportunity was taken to ask him to comment on the findings instead.

In return for research access to the two Swedish organisations, the companies were offered a free lecture by the researcher's professor husband, who had previously been a chief engineer in Scandinavia. The contact in Swed-B was the Vice-President, Engineering, and he asked for a confidential report on the findings specifically for his company. This has been delivered and a debriefing meeting held.

In Swed-C, the contact was a senior specialist, who worked with a junior colleague, who was the local organiser of the women engineers' society, to identify and arrange interviews with women managers. They then worked with the Personnel Manager to find male peers. It was sometimes not possible to obtain a close match on all the criteria in the smaller Swedish organisations. There were no Swedish women engineer directors in the two organisations, although these were two of the largest companies in Sweden. The three women interviewees were the only women engineers in middle management in Swed-B, and similarly in Swed-C, the three managerial women sampled were the most senior in the company, with a further twelve at the lowest level of management. The much flatter Swedish organisations meant that it was more difficult to allocate interviewees to a managerial category exactly equivalent to those more clearly defined in the British organisation. This study is using the term "middle managers" following Fenton-O'Creevy's (1998, p.68) definition of middle manager as "any manager below the most senior tier, but not including individuals with first line supervisory

responsibility who have no career path to higher management levels". This may include "senior techno-structure analysts" according to Mintzberg (1979), those in the middle management structure who are working on technical management paths as well as line managers. Those who are designated "junior managers" are at the threshold of management, having moved up through several levels since joining after their engineering degrees. Indeed, some of them are acting as supervisors of technical graduates and others already. Those at the strategic apex of the company are called senior or top management in this study.

Guidance was sought from the senior contacts, and from the interviewees themselves as to their managerial category for the purposes of this study. (See Tables 4.2 and 4.3) Some of the Swedish managers did not have much line management experience, compared to the British engineers, who very often had experience of managing several thousands of engineering professionals. One Swedish engineer aged 59 stepped into the sample when someone had to pull out suddenly. There was little alternative to this in the doctoral study, as the overseas fieldwork visit had to be completed by a given date, in order for the visit to be funded by the Open University Crowther Fund Award that year. (With more time, a better match could have been found.)

Table 4.2 indicates that the youngest engineer was age 28, the oldest was 59, and job levels ranged from senior technologist to director. In the whole sample, 27 were married, and a further five lived with a partner. All of the women in the sample were living with their husband or partner at the time of the interviews, so they all had competing family commitments to deal with, as well as their work commitment. Only three of the UK women had children, compared to five of the eight Swedish women, and twelve of the 20 men. One male middle manager and two male junior engineering managers were single and not living with partners.

Tenure was considered to be a demographic variable which might influence how commitment meanings develop and are shared in organisations. However, there were few differences between length of job tenure with their present organisations for males and females in this sample. It could therefore be argued, with so many middle and senior managers having long tenure in this sample, that difference in responses, other than in a very few cases, would not be as a result of different tenure periods. Even the junior managers, by the time they had reached their late twenties, as those in this sample, had had several years in which to assimilate the norms around commitment behaviour and evaluation in their companies.

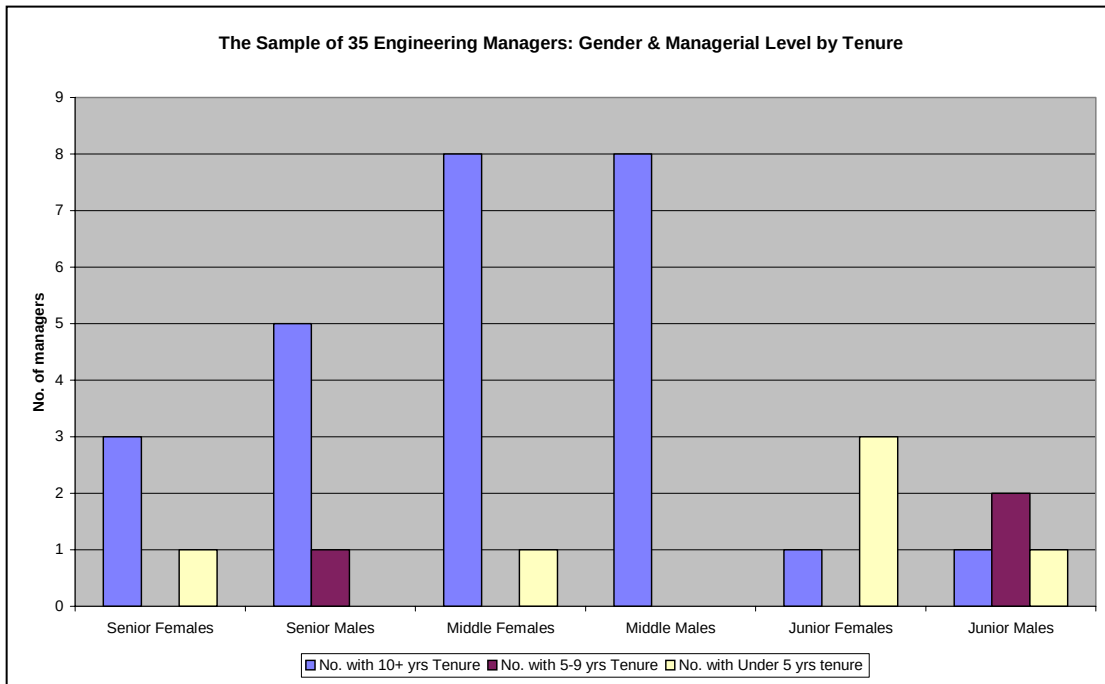


**Figure 4.2 Sample by tenure, gender and managerial level**

The participants worked in a variety of departments, within engineering, technology, R&D, mechanical design, materials, quality, technical marketing, training, technical service support, space, specification. One matched male/female UK pair were now in human resource middle management, following recent changes from earlier careers in engineering. All the rest were still working as engineers.

The women engineers in the sample are significant players in their field. Since the interviews, two of the British women have become managing directors of engineering divisions. One woman was a finalist for the 1998 UK Businesswoman of the Year award, and in 1999 became European Woman of the Year. A major strength of this research is that it provides **their** account of the meaning of commitment, as they rise to the top of their male-dominated industry.

**Table 4.2 The Research Participants**

| Title                                     | Sex | Age | Tenure | Level  | Marital status | Children | Company |
|-------------------------------------------|-----|-----|--------|--------|----------------|----------|---------|
| Managing Director Military Division       | F   | 44  | 19     | Senior | P              | 0        | UK-A    |
| Aerospace Division Director               | M   | 41  | 20     | Senior | M              | 2        | UK-A    |
| Aerospace Division Director               | F   | 45  | 23     | Senior | M              | 0        | UK-A    |
| Head of Technology, Aerospace Division    | M   | 52  | 30     | Senior | M              | 2        | UK-A    |
| Director Advanced Engineering, Power Div. | F   | 42  | 2      | Senior | M              | 0        | UK-A    |
| Head of New Products                      | M   | 44  | 24     | Senior | M              | 2        | UK-A    |
| Project Marketing Manager                 | F   | 41  | 20     | Middle | M              | 0        | UK-A    |
| Project Manager                           | M   | 36  | 14     | Middle | M              | 3        | UK-A    |
| Project Manager                           | F   | 38  | 17     | Middle | P              | 0        | UK-A    |
| Senior Specialist in Materials            | M   | 44  | 27     | Middle | M              | 0        | UK-A    |
| Senior Specialist in Materials            | F   | 43  | 18     | Middle | M              | 2        | UK-A    |
| HR Manager (former engineer)              | M   | 36  | 14     | Middle | S              | 0        | UK-A    |
| Personnel Manager (former engineer)       | F   | 34  | 10     | Middle | M              | 2        | UK-A    |
| Staff Technologist                        | M   | 40  | 10     | Junior | M              | 2        | UK-A    |
| Staff Technologist                        | F   | 38  | 14     | Junior | M              | 3        | UK-A    |
| Advanced Technologist                     | M   | 29  | 7      | Junior | M              | 0        | UK-A    |
| Principal Technologist                    | F   | 28  | 7      | Junior | P              | 0        | UK-A    |
| Chief Engineer Military Projects          | M   | 40  | 16     | Senior | M              | 2        | Swed-B  |
| Head of Aero Thermo                       | M   | 40  | 9      | Senior | M              | 0        | Swed-B  |
| Engineering Manager Materials             | M   | 43  | 19     | Middle | M              | 3        | Swed-B  |
| Materials Manager                         | F   | 34  | 11     | Middle | M              | 2        | Swed-B  |
| Manager Mechanical Design                 | M   | 42  | 11     | Middle | M              | 3        | Swed-B  |
| Projects Design Manager                   | F   | 33  | 10     | Middle | M              | 0        | Swed-B  |
| Senior Specialist, Aero Thermo            | M   | 34  | 10     | Middle | M              | 3        | Swed-B  |
| Manager Specification & Standardisation   | F   | 36  | 15     | Middle | P              | 0        | Swed-B  |
| Group Leader, Space                       | M   | 30  | 6      | Junior | S              | 0        | Swed-B  |
| Project Leader, Space                     | F   | 31  | 8      | Junior | M              | 1        | Swed-B  |
| Technical Manager                         | M   | 50  | 25     | Senior | M              | 2        | Swed-C  |
| Materials Manager                         | F   | 55  | 17     | Senior | M              | 2        | Swed-C  |
| Service Manager                           | M   | 50  | 18     | Middle | M              | 3        | Swed-C  |
| Manager Technical Support                 | F   | 33  | 1      | Middle | M              | 1        | Swed-C  |
| Senior Specialist Combustion              | M   | 59  | 33     | Middle | M              | 2        | Swed-C  |
| Manager Fluidised Bed Combustion          | F   | 36  | 13     | Middle | M              | 2        | Swed-C  |
| R&D Design Engineer                       | M   | 30  | 3      | Junior | S              | 0        | Swed-C  |
| R&D Design Engineer                       | F   | 29  | 6      | Junior | P              | 0        | Swed-C  |

Additional interviewees (brief)

|                            |   |  |  |        |   |   |        |
|----------------------------|---|--|--|--------|---|---|--------|
| Vice President Engineering | M |  |  | Senior | M | - | Swed-B |
| R&D Director               | M |  |  | Senior | M | - | Swed-C |

**Table 4.3: Research Participants by Managerial Level and Gender**

| ORGANISATIONAL LEVEL                                                                      | UK-A                 | Swed-B               | Swed-C               |
|-------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| Directors/Top Managers<br>ie Dalton et al's Stage 4 (Sponsor)                             | 3 males<br>3 females | 3 males              | 2 males,<br>1 female |
| Middle Managers/Senior Professionals<br>ie Dalton et al's Stage 3 (Mentor)                | 3 males<br>4 females | 3 males<br>3 females | 2 males<br>2 females |
| Junior Managers/Senior Technologists<br>ie Dalton et al's Stage 2 (Independent Colleague) | 2 males<br>2 females | 1 male<br>1 female   | 1 male<br>1 female   |

#### 4.6.2 The Data Collection Sites: UK-A, Swed-B and Swed-C

##### **UK-A**

The company is a world-class manufacturer of jet engines, used for civil air transport, military engines, and for power generation. Turnover in 1996 was over £4 billion, the order book was for £7 billion and 80% of its products were exported (UK-A Annual Report, 1996). The company operates mainly in three sites spread across the UK, with civil, military and power divisions, although there is a lot of interaction between them. Historically, UK-A has trained its own leaders over long periods of career development, though more recently, managers have been recruited externally as well.

The company employs over 40,000 people world-wide, including several thousands of graduate engineers. They have kindly supplied some up-to-date statistics to put the numbers in the sample into perspective. In the key engineering division, the percentage of women engineers ranges from around 4% to 20% across different departments. There were 111 professional female engineers in 1998, including 52 aged 25-29, 31 aged 30-34, 11 aged 35-39 and 9 aged 40 and over. The percentage of women in managerial positions is 2.4%, with 2% at senior level and 2.5% at middle level. The bulk of the females are at the professional entry grade where they form 8.4% of the technologist grade, and 5.5% overall in the four levels at that grade. The company reports a slight increase in females at the first grade. Attrition rates in the company are low, at less than 3%, and they say that leavers are generally from the two middle levels in the technologist grade, mostly aged 26-30. They had not noticed any significant changes, and were not able to provide statistics on maternity leavers or returners.

UK-A has made efforts to recruit more women engineers, by showing women in their brochures (some who are in this sample), profiling them in company newsletters, and participating in Women into Science and Engineering initiatives. In its graduate recruitment brochures, the need for commitment is strongly emphasised:

“We are interested in you, in your vision, and your commitment to the attainable but nonetheless remarkable goal of consistent improvement and your enthusiasm for whatever is outstanding and extraordinary”

“We want people with the energy and motivation to see their goals through to successful conclusion”.

This organisation had recently introduced a staggered hours scheme, making it easier for working parents to share parenting duties such as school runs. There were career break schemes in operation now, but women engineers reported that the norm for ambitious women was to keep the period of maternity leave as short as possible.

The company has a fairly flexible, hierarchical career structure instigated in 1992 with three tiers for professional engineers, who start as graduates, often going through a trainee programme in several departments. They can progress through the four levels in the

technologist structure as their independence increases. The next major step up is into the 3-level middle management tier, where there is an option for either a specialist or a managerial path, with possibilities of transfer between the two, although managerial positions can only be achieved when there is a vacancy. Specialists and professionals can seek promotion to the next level by presenting a case based on their current achievements, developing themselves whilst remaining in the same, but enhanced job. Above them is the senior management level, chief engineers and directors, which has in 1999 been split into two bands within the level. These top two tiers correspond to the managerial stages 3 and 4 in Dalton et al's (1977) study, whilst the top grade of the technologists scale corresponds with Dalton's stage 2.

### **Swed-B**

This aerospace corporation is part of the larger automobile industry parent, with a relatively recent move into space propulsion (rocket systems) expanding its longer-standing business of development and production of military gas turbines for fighter planes, as well as civil aero-engines. Another new area is engine services for commercial aircraft, and Swed-B is developing gas turbines for cars, trucks and marine use. Income in 1996 was SEK 4.1 billion. There were 2500 employees in the aerospace corporation in 1997, in military and civil divisions. Another 1000 or so employees are employed at other sites. There were 361 women, making up 14% of the workforce in the site visited, and the company seeks more women engineers. The company structure is flow-oriented, and the management structure has only five levels, from the corporation vice-president engineering, down through the heads of functions/divisions, heads of departments, group leaders and project leaders. There are good opportunities for secondments to major gas turbine companies overseas. The offices are modern, located in a pleasant small town in south-west Sweden, close to other similar industry, and not far from one of the country's leading technical universities. The company was making efforts to recruit more women engineers, and to develop those who were ready for management positions. Two of the women in the sample had the opportunity to grow by challenge recently, when they had been posted to the USA on collaborative projects, their husbands taking a year out to go with them.

### **Swed-C**

This company has been located in its small mid-Sweden town for centuries, with origins in weapons and ironworks, adding industrial gas turbines in the 1950s to its existing steam turbine business. The offices are built around a historic castle set in formal riverside gardens, and despite modern additions to the buildings, one is constantly aware of tradition behind the business. The parent company is one of Sweden's largest, with a global US\$ 35 billion engineering business, now 50/50 jointly owned with a Swiss partner, with whom R&D work is shared. Swed-C's order-book in 1996 was for almost SEK 3 billion. The gas turbines produced here are very large, for industrial use, particularly large scale power generation. Long-term research is being undertaken into new cleaner forms of power generation, such as pressurised fluidised bed combustion. The products are exported world-wide, and there are many opportunities for overseas assignments. There are 2000 employees in the turbine

business, with turnover running around 4%. A quarter of the employees are university graduates with masters degrees. There has been a conscious effort to recruit more girls from university, and the company has set up its own industrial college. The 277 women make up around 14% of total employees, but in engineering positions, they are around 4%. There is an emphasis on being a learning organisation, and on commitment to results. The company report (Swed-C, 1996) states:

“Our leaders are recruited and developed on the basis of our philosophy that their most important role is to achieve results through the employees.”

“We have succeeded in creating a functioning method of work for continuous improvements, where the commitment and creativity of our employees are stimulated and capitalised on in a constructive way.”

The company structure is much flatter than the larger UK organisation in the sample, and is organised “in terms of processes, not as a hierarchical, rigid departmental organisation.” Under the board are chief engineers, department heads, group leaders and project leaders. People can take specialist positions and transfer back to managerial paths again.

Like Swed-B, the company offered flexible hours, and all parents of young children benefited from state legislated generous maternity and paternity leave schemes, should they wish to avail themselves of such arrangements.



## **4.7 STAGING THE INTERVIEWS**

### **4.7.1 The First Interviews**

As there are so few women engineers in management, a pilot study would have used up yet more of the possible women of interest, some already having been involved in the preliminary discussion groups. It was therefore decided to use the first six interviews of women engineers in UK-A as a first stage, to be analysed and reviewed before continuing with the rest of the study. During those interviews, it emerged that there were two more senior women not on the list, and therefore a request was made for access, and to matched male peers for all the women. Access was arranged for 8 male/female pairs, and one female deputy managing director of a major division, who was subsequently promoted to managing director.

### **4.7.2 Focusing the Swedish Interviews**

After the first batch of interviews had been transcribed, but before they were analysed, the researcher received an external award of funding for the Swedish part of the study, which had to be used before the end of the academic budget year. It was not ideal to conduct the Swedish interviews before a full analysis could be done on the UK data. However, by that time, the researcher had a good understanding of the key issues to be addressed in the interviews, and so the 20 Swedish interviews were more focused on the area of interest, the meaning and appraisal of commitment, and on the outcome, but less specifically on career development opportunities for women in comparison to men.

### **4.7.3 Carrying out the Interviews**

Interviews with 37 engineers, including 17 women, were conducted over a period of nine months. Thirty-five full interviews were tape-recorded and transcribed by the researcher. Two briefer meetings with two top Swedish managers (both over lunch, one in a hotel, with other guests present) were noted afterwards. Two tape recorders were used with a few minutes delay between, so that nothing would be lost during tape turnover. This turned out to be very useful back-up, as a couple of tapes were spoilt by the machine. These 35 interviews all took place on company premises in a private office during work time, typically lasting one and a half hours. An interview guide rather than a schedule was used, although deviations usually occurred at some stage of the interview. This guide had been piloted on two engineers before use in the interviews, and adapted accordingly. One pilot design feature which did not work was the request for critical incidents relating to commitment, and this was adapted for the main interviews to ask for descriptions of role models instead. The interview guide is described below at Figure 4.3.

**Figure 4.3 The Interview Guide.**

**SECTION 1 (unprompted)**

Introduction to the Interview

1. The meaning of “commitment”

- \* What does “commitment” mean to you in a work context? (prompt: If someone says a person is highly committed, what does that mean?)

2. The manifestation of “commitment”

- \* Describe a senior role model of commitment (without giving the name). How do you know that this person is committed?
- \* Is that a male or female? Can you describe a role model of commitment of the opposite sex to the first one given?
- \* Describe someone with low commitment. How do you know they are not committed?

**SECTION 2 (prompted as necessary)**

3. The properties of “commitment”

- \* Tell me more about your views on commitment. (prompts – what is it, how is it recognised)
- \* What about commitment in engineering (prompt, professional? anything special?)
- \* Are there any links between commitment at work, and family commitments?

4. The appraisal of commitment

- \* How and when is commitment appraised? (prompts – experiences, forms, systems)
- \* What is the manager’s role in the appraisal process?
- \* How do you think commitment is signalled and interpreted?

5. Gender and commitment

- \* What about women engineers and commitment?
- \* What about requests for career breaks, part-time work?

**Conclusion, thanks, any questions, give visiting card.**

## 4.8 NOTES ON THE INTERVIEW GUIDE, AS CONDUCTED

### 4.8.1 Interview Guide, Section 1

#### **Introduction to the Interview**

Introductions included reference to the contact, and to previous contact with the company. A broad overview of the study was given, and people were asked to give their own views, not those which related to their company positions. All interviewees were asked for permission to be tape-recorded, and none refused. Interviewees were assured of confidentiality of reporting, so that no single individual would be identifiable in written reports or articles.

#### **1: The Meaning of “Commitment”**

##### **The opening questions: What does “Commitment” mean in a work context?**

After the first six interviews with the British women, which opened with the question about role models, it became clear that little mention was being made of continuance commitment (the desire to stay in the company), which had been such a major feature of the conceptualisation of commitment in the literature. It was therefore decided to check for unprompted meanings at the outset of the rest of the interviews. This flexibility to adapt the data collection for case studies en route, as suggested by Eisenhardt (1989) allowed for a better focus and tighter data at an early stage of data collection. In some of the Swedish interviews, where some respondents were not forthcoming initially, the Swedish words from the dictionary definitions, giving an undertaking (*åtagande*), involvement (*engagemang*) and duty (*förpliktelse*) were given by the researcher, and a discussion held around these as to whether they were close to the meaning held by the subject. (It is acknowledged that this may have introduced some bias, but it allowed more meaningful responses to be given.)

#### **2: The Manifestation of Commitment**

##### **Describe a senior role model of commitment.**

Interviewees were asked to describe someone senior to them (without giving a name, although some of them chose to do so), whom they considered to be very committed, and to explain how they knew the person was committed. This resulted in descriptions of very committed behaviour, although some people stated that they would not like to be so committed as the role model, because of the cost to personal lives. This turned out to be a thread running through the interviews, that there was a balance between work and outside which they did not want to upset. It was therefore later decided to ask interviewees to complete a career anchor inventory (Schein, 1990), to put their responses into context with their career anchors.

##### **Is that a male or female?**

The respondents were asked about the gender of the role model, and another role model of the opposite sex to the first was sought. Few interviewees could give a senior female role model of commitment.

**Describe someone with low commitment.**

To check out the highly committed behaviour reports, interviewees were asked to describe someone with low commitment. This seemed an easier question for people to answer quickly - they were much clearer about uncommitted/low committed behaviours and attitudes.

**4.8.2 Interview Guide, Section 2****3: The Properties of "Commitment"****What about links between work and family commitment?**

People were asked about links between commitment at work, and external commitments, especially family or other outside pressures, and how they dealt with them. These questions were to get a deeper picture of what commitment meant in terms of their commitment to the organisation, in relation to their own lives, as this would be likely to impact how they viewed the commitment of subordinates.

**4: The Appraisal of Commitment****How is commitment appraised?**

People were asked how and when they appraised commitment, taking into account whether they were responsible for assessing it in others as line managers. Some of the eight junior managers/senior technologists did not yet formally assess others' performance (other than of trainees), and therefore their responses gave only their perceptions as subordinates of what happened during formal assessment processes. Information was collected on whether commitment was formally ticked off on a check list at the annual performance review with the manager. At UK-A and Swed-C, this was not the case, but Swed-B included commitment as part of the annual performance review in their guidance notes and forms. (See Exhibits 7.1 to 7.3)

**What is the manager's role in this appraisal?**

Subjects were questioned as to whether they expected their manager to notice their commitment, or whether it had to be demonstrated in some way. They were asked how they noticed subordinates' commitment. Managers were asked what they used the assessment for, and prompted about whether they would take commitment into account when planning career development for subordinates, particularly for challenging assignments, by which promising engineers would acquire key experiences for later promotion opportunities.

**5: Gender and Commitment****What about women engineers and commitment?**

The question was asked whether men and women had similar commitment. After asking about their experience of managing and being managed by women engineers, managers were asked if gender was taken into account when assessing commitment, and when allocating developmental assignments, such as long-term overseas posts and jobs with frequent travel.

### **What about requests for career breaks, part-time work?**

Interviewees were asked whether marriage and pregnancy were seen by themselves, or by others (to get their perception of the culture) as signals of impending lower commitment, and asked to describe any impact on career prospects. In both countries, responses included comments on both men and women taking career breaks and seeking part-time work, but in the UK, this was still considered unusual, whereas in Sweden, maternity and paternity leaves were generous in length and well-paid, and frequently taken.

### **4.8.3 The Commitment Signalling Diagram**

At the end of the meeting, interviewees were shown the commitment signalling diagram at Figure 4.4, which was first described without mentioning gender. Then using the gender overlay, the researcher introduced the issue of signalling and possible gender stereotyping, and asked the interviewee for comments. In some cases, this led to a useful and involved discussion, particularly over the issue of male managers and their age, and their experience of women in managerial roles. However, on the whole, this resulted mainly in the interviewees agreeing that the diagram was a good map of the process, but in one or two cases left the researcher feeling unsure whether this really was their opinion and not just politeness on their part. This interview tool did not provide as much good material as hoped.

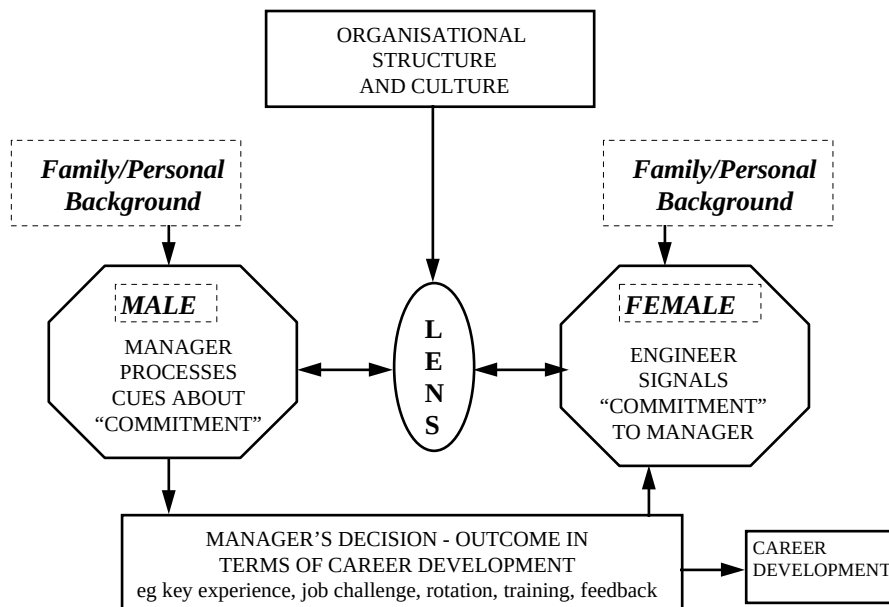


**Figure 4.4: The Commitment Signalling Process (with gender overlay)**

#### 4.8.4 Ending the Interview

At the end of the interview, subjects were asked what they saw as the major hurdles and facilitators for women engineers, to see if any of them saw perceptions of commitment as the major hurdle. Then biographical information was collected from each interviewee. The respondents were thanked, given the researcher's visiting card for later contact, and asked if they had any questions to raise. Sometimes, reassurance was sought about confidentiality, and about what would be done with the results. Generally, reactions were very positive, some managers thanking the researcher for having made them express verbally their thoughts on commitment, which would be useful to them at work.

Notes were made on the face sheet of the interview guide during and after the interview, and typed up afterwards into one page summaries, which sometimes included comments on the interviewee's behaviour during the interview. The researcher also had several opportunities to see the workplaces of individual engineers in the three sites. Following the interview, the researcher wrote to thank the interviewees for their time, as well as thanking the contacts and Personnel managers who had helped to find the matched pairs to their most senior women.

## **4.9 INTERVIEW DATA ANALYSIS**

### **4.9.1 Overview of Analysis Method**

The interview transcript data were analysed using a qualitative analysis method of categorisation and sub-categorisations, based on a grounded analytical approach as described by the realist researchers, Lofland & Lofland (1995). It is similar to that suggested by Strauss & Corbin (1990), with a literature review before fieldwork, rather than the grounded theory method of Glaser & Strauss (1968), who advised that it would be better to go into the field with an open mind, reflect on findings, and then search the literature to set those reflections into context. Fieldwork began after a thorough review of the relevant literature, to seek conceptual relationships between the conditions and contexts in which the interaction of commitment appraisal takes place, in particular, gender and managerial level, whilst being sensitive to possible other phenomena which might be relevant in the data. The data were also initially examined quantitatively for patterns in the responses, using thematic content analysis. Numerical trends in responses amongst the categories are of interest in this study, and assisted in the identification of concepts and themes from the qualitative data (Miles & Huberman, 1994). The management of the qualitative data, and the exploration of relationships between the categories were done with the help of the qualitative analysis software, QSR NUD.IST 4 (Non-numeric Unstructured Data Index Search Theory).

### **4.9.2 Transcription of Interview Data**

The interviews were transcribed by the researcher, with a notes file open at the same time, to allow memoing of questions, ideas and comments to be recorded as they arose. Whilst the transcribing took many months, it was considered essential for the researcher to transcribe the tapes herself, as this allowed deep reflection with the spoken words of the interviewees, assisting with recall of behaviour during the interviews, and flashes of ideas and understanding coming through, as the words were being typed.

### **4.9.3 The First Six Interviews**

After the first six interviews had been typed up, relevant text was highlighted, coding notes were made in the margins, copied onto post-it notes, and fitted onto large sheets under the headings of Mowday et al's (1982) three sub-concepts of commitment (continuance commitment, and affective commitment broken down into components of effort and identification). It became clear that almost no mention of continuance commitment was being made, and that a very holistic meaning of commitment was emerging. Also, commitment linked to corporate goals was hardly mentioned in this first batch of interviews. Whilst the first six interviews opened with "please describe a role model of commitment", followed by "what is the meaning of commitment in a work context", it was decided to open the remaining interviews with those questions in the reverse order, opening with "what is the meaning of commitment" to avoid introducing other concept meanings in discussion, and biasing the unprompted results.

#### **4.9.4 Summarising through the Matched Pairs**

It became apparent that there was far too much data, and this was overwhelming the researcher, and making analysis difficult. Data reduction was necessary. One page summaries were therefore made of the UK-A interviews, keeping as close to the words of the respondents as possible. As the interviewees were matched male/female pairs, the pairs of summaries were put together, and then groups of summaries of interviewees at the same managerial level. It became obvious that some sections had far longer responses from some individuals than others. Some engineers had been very terse whilst others were willing to expand on questions at great length. This summarising exercise helped to identify similarities and differences between males and females at the same level in the company, giving an understanding of what would be a good starting point for an interpretive computer-assisted analysis of the data. Table 4.4 shows part of a group summary for the UK senior technologists.

#### **4.9.5 Using QSR NUD.IST**

Even with the summaries, it was still difficult to ascertain patterns in the data, and so it was decided to use QSR NUD.IST for management of the data. Whilst the early version (N3) had limitations, which restricted the creative thinking process by its regimented structure, the current version N4 has been an excellent tool. A description of the various software packages available and their methodological implications is given in Richards & Richards (1994). The software can be used for a variety of analyses, and tables with the same individual cases as the interviews can be imported from SPSS and similar packages, so that wider searches can be made where appropriate. N4 is particularly suited to testing provisional hypotheses by iterative index searches of detailed coding, according to its co-founder. Its use for classic grounded theory analysis has sometimes been criticised because the theory should emerge from an overall immersion in the data as a whole rather than patterns being sought by segmented text retrieval from the data (Richards, 1997a&b). However, for the purposes of this study's approach, the software facilitated the structuring of a large amount of data which could be searched systematically, and recalled whenever needed, for example, when writing up, to check out and confirm findings. Figure 4.5 gives an overview of the system for categorising, indexing, searching and theorising from the data using Nudist 4.



| SENIOR TECHNOLOGISTS                                                                                                                                                   | Anna Towers                                                                                                                                                                                                                                                                    | Dr Ruth Stevens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Dr Larry Lincoln                                                                                                                                                                                                                                                                                                                                                                                                                     | Tom Alder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                        | Age 29, 3rd of 4 levels on Technology Scale, Principle Technologist, Brit-Eng. Supervises trainee engineers. Has not appraised women engineers. Never been managed by one. Career Anchor: CH Pure Challenge                                                                    | Age 38, Top of Technologist Scale, Staff Technologist, Brit-Eng. Supervises trainee engineers, but not others. Has not appraised women engineers. Never been managed by one. Career anchor: LS Lifestyle                                                                                                                                                                                                                                                                                                                                             | Age 40, Lower Management, Staff Technologist, Brit-Eng. Supervises 9 engineers (max 15). Has appraised 3 women engineers. Never been managed by one. Career anchor: TF technical/functional competence                                                                                                                                                                                                                               | Age 29, Lower Management, Advanced Technologist, Brit-Eng. Supervises 2 engineers. Has never appraised a woman engineer or been managed by one. Career anchor: LS Life Style                                                                                                                                                                                                                                                                                                                  |
| Matches WHO                                                                                                                                                            | Matches Tom Alder                                                                                                                                                                                                                                                              | Matches Larry Lincoln                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Matches Ruth Stevens                                                                                                                                                                                                                                                                                                                                                                                                                 | Matches Anna Towers                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Current Family                                                                                                                                                         | Single, lives with partner who is also engineer.                                                                                                                                                                                                                               | Married to a more senior Brit-Eng engineer. Three children age 7,4 and 6 months. Uses nursery and pre/post school clubs. Nursery opens at 7.00 am. Works full-time, only took 3 months off for maternity leave.                                                                                                                                                                                                                                                                                                                                      | Professional wife, professor of law, full-time work. Two children 10 & 6. Used nanny, childminder and now after-school club. He shares childcare, picks up children after school. Has to leave on time. Lives 50 miles away from work.                                                                                                                                                                                               | Wife is nurse, working full-time. No children                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| What is the Meaning of Commitment to you in a work context?                                                                                                            | Always finishing the job to the best of my ability no matter how boring or inconvenient it is to me personally. To work in a professional manner, be reasonable about your work, to consider what is best for company. Not to be underhand, to be straight up, and to be fair. | Delivering a quality product, go out of way to deliver. Challenge the system if necessary, at the highest level. Quality of checking documentation to changing procedures that aren't right. A lot of people think commitment is willingness to put in all sorts of hours. But it's dedication, and if you are only available to work 8 hours a day, you can be just as committed during those hours as anyone else. It's doing the job beyond the job description. It's working on your own, but knowing what to ask, taking advice when necessary. | Care about quality. Give satisfactory answers to your internal customers. Give information in exactly the right amount of time, or you are wasting company's resources. Proactive, tell people what you can do, don't wait to be told.                                                                                                                                                                                               | Being prepared to stay with the place. Looking for job security in return for time and efforts. Trying to achieve something, do my best for the company. Not going from one job to the next. Using initiative to understand what the problem really is, & come back with an answer. Give realistic answers, especially over time necessary. Don't just accept what has been done before. Attitude: is being proactive about is this the right way to do it, do you need to do it differently. |
| Think of someone above you in the organisation, who you think is very committed, and tell me what it is that shows that they are committed. "Role Model of Commitment" | They have commitment beyond the call of duty, being asked to suddenly go abroad. Stay late with no notice. Deal with the problem.                                                                                                                                              | Refused to give description of specific role model. "wouldn't like to single any one out in particular - there are a lot of very dedicated people".                                                                                                                                                                                                                                                                                                                                                                                                  | Sees himself as best role model of commitment. Personally committed to quality and effectiveness of company's engineering, and to its engines. Above him, managers are committed to organisation, wouldn't criticise the company outside, whereas he would criticise. He had met five women managers, only one in his area. In the technical systems area, there are now 20% women. But he hasn't a female role model of commitment. | Previous manager, fast career, recognised and rewarded. Consistently works hard, good results, respected. Passes on responsibility below, doesn't take all the glory, doesn't try to take it all on himself. Good at pushing people forward, keen to develop people. Better at giving support to me than most of my peers get from their managers. Other gender: No direct contact with women managers, but some of his female peers took overseas postings, showing commitment.              |

|                                                                 |                                                                                                                              |                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Describe what an uncommitted person is like.<br>"Non-Committed" | Wouldn't assume someone wasn't committed, would find out why. It is leaving without completing the task. Not helping others. | Attends the required hours, leisurely pace, does what is put in front of them and doesn't question it. Doesn't stir up any trouble, fills up the time at work, then goes home to think about something else.                            | Lack of drive, not delivering, not having a sense of obligation. Doing what is paid for in the 38 hours. Not being proactive, not telling people what you could do, waiting to be told. Attitude would be fairly offhand, chatting a lot. | Don't pull their weight, aren't interested in outcome of job. Do the hours and overtime for money, but not committed to do best job for company, only for own interests. Some people hang around till boss has gone home, but system allows this. It doesn't show that they are committed, just that they are there for the hours.                                                                                                                                                   |
| Is there a special meaning of commitment for Engineers?         | To have a professional approach, quality                                                                                     | Committed to engineering because she enjoys it. Could go elsewhere for more money. She is on a couple of European committees, enjoys meeting like-minded people in Europe, they have discussions "where everybody can input something". | He is most committed to the engines. Sees himself as top technical person in his area. Not very committed to formal professional bodies, previous contact was for chartered status. Doesn't attend lectures, excuse is the children.      | Need commitment to quality of work. Mustn't hide things, or miss out on calculations. Be thorough. Be aware that situations change, don't just plod on as before. Proud of being engineer, should be better recognised. Going for chartered status soon. Reads IMechE magazine. Wants to be recognised as technical expert before going up ladder, wants respect when he gets to make decisions at high level. Still feels he has a lot to learn, then move into project management. |

**Table 4.4      Part of the Summary of the Matched Pairs Responses**

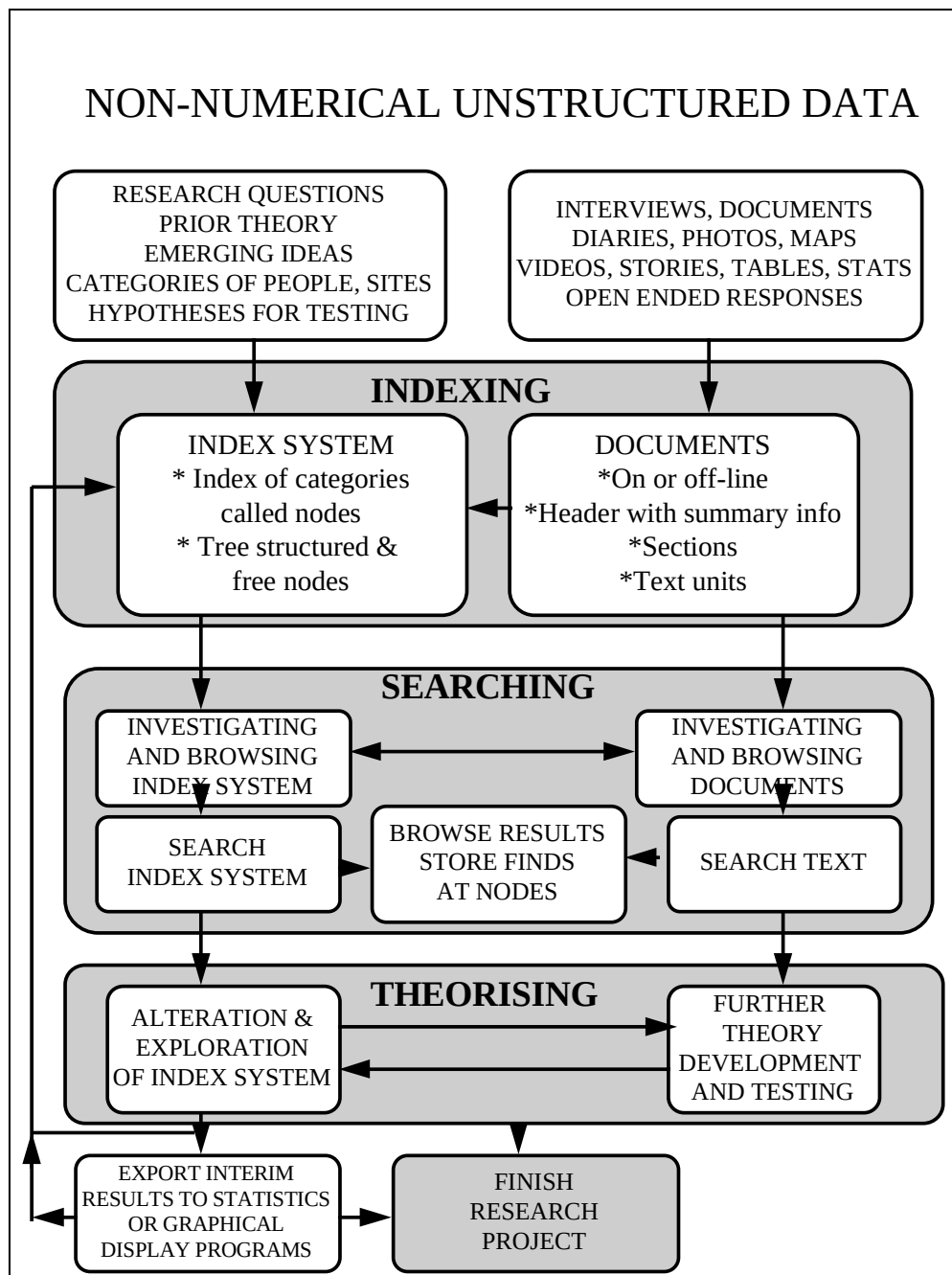


**Figure 4.5 The QSR NUD.IST data management and theorising process (QSR, 1997)**

#### 4.9.6 Preparation of the Data

First, the word-processed files were made anonymous, given headers and section headings. A decision then had to be made about the text units, whether to choose words, lines, sentences or paragraphs. Lines were the most appropriate units, and the files were saved as text files with line breaks. The transcripts could then be imported into N4 and each new section coded to a node

with the same heading, ie indexing. This may done by command files to automate the process, but as only a small number of interviews were coded at any one time, the researcher found it more useful to do it one by one, to use this time to reflect again on the text whilst computer-coding, new insights being gained whilst in such frequent contact with the data. By saving the text with line breaks, yet “chunking” the text into sections, rough coding of the sections could be done relatively quickly, allowing for line by line coding later, where required. N4 also allows for coding of whole interview references for base data such as gender, age, marital status, managerial level, organisation etc, as well as the named individual. This makes it extremely easy to check, for example, what single female managers in a particular organisation say about something referenced at a particular node, for instance, on commitment and career breaks. A separate automatic index of searches keeps the data and ideas separate, and reports and memos can be attached to this index as well as to the data node index.

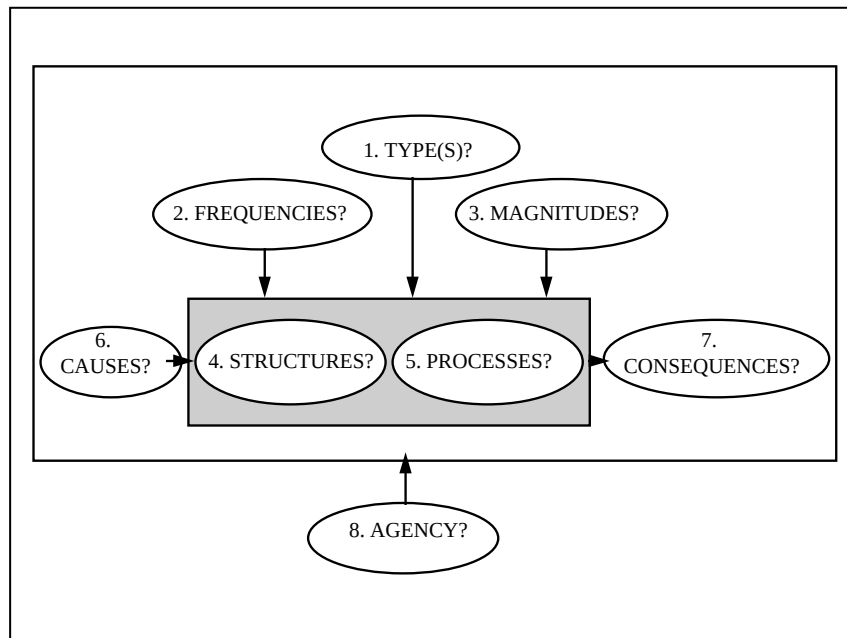


**Figure 4.6: The Lofland & Lofland (1995) Analytical Framework**

#### 4.9.7 Coding

Transcripts were coded in two stages, coarse at first, and fine-grained later for the sections of significance. Indexing in N4 is organised by nodes on branches in a hierarchical tree-like structure, and text can be attached to any part of the system, or simply left unattached. The system stores references to the line numbers (or sentences or paragraphs, whatever the original choice was made for the unit size) rather than actually storing the text at each node. The system allows for easy changes in coding. Nodes can be copied, divided, collected etc, with an attached memo noting the changes so that a record is kept of progress.

**Figure 4.7 Part of the Final Coding Framework**

340 Nodes

204 Data-Containing Nodes for Conceptual Framework

28 Base Data Nodes (characteristics of respondents)

38 Case Data Nodes (individual responses)

```

(1)          /COMMITMENT
(1 1)        /COMMITMENT/MEANINGS
(1 1 1)      /COMMITMENT/MEANINGS/CONTINUANCE
(1 1 1 1)    /COMMITMENT/meanings/Continuance/dedication
(1 1 1 2)    /COMMITMENT/meanings/Continuance/loyalty
(1 1 1 3)    /COMMITMENT/meanings/Continuance/want to stay in org

(1 1 2)      /COMMITMENT/MEANINGS/AFFECTIVE
(1 1 2 1)    /COMMITMENT/meanings/Affective/Identification
(1 1 2 1 1)  /COMMITMENT/meanings/Affective/Identification/give info
(1 1 2 1 2)  /COMMITMENT/meanings/Affective/Identification/holistic view
(1 1 2 1 3)  /COMMITMENT/meanings/Affective/Identification/identify with org
(1 1 2 1 4)  /COMMITMENT/meanings/Affective/Identification/involvement
(1 1 2 1 5)  /COMMITMENT/meanings/Affective/Identification/judgement
(1 1 2 1 6)  /COMMITMENT/meanings/Affective/Identification/pride
(1 1 2 1 8)  /COMMITMENT/meanings/Affective/Identification/want to contribute

(1 1 2 2)    /COMMITMENT/meanings/Affective/Effort
(1 1 2 2 1)  /COMMITMENT/meanings/Affective/Effort/availability
(1 1 2 2 2)  /COMMITMENT/meanings/Affective/Effort/do best for org
(1 1 2 2 3)  /COMMITMENT/meanings/Affective/Effort/enthusiasm
(1 1 2 2 4)  /COMMITMENT/meanings/Affective/Effort/find solutions
(1 1 2 2 5)  /COMMITMENT/meanings/Affective/Effort/hours over norm
(1 1 2 2 6)  /COMMITMENT/meanings/Affective/Effort/preparation
(1 1 2 2 7)  /COMMITMENT/meanings/Affective/Effort/be proactive
(1 1 2 2 8)  /COMMITMENT/meanings/Affective/Effort/put self out for org
(1 1 2 2 9)  /COMMITMENT/meanings/Affective/Effort/quality
(1 1 2 2 10) /COMMITMENT/meanings/Affective/Effort/task & objective delivery

(1 1 3)      /COMMITMENT/MEANINGS/NORMATIVE
(1 1 3 1)    /COMMITMENT/meanings/Normative/control by org
(1 1 3 2)    /COMMITMENT/meanings/Normative/duty
(1 1 3 3)    /COMMITMENT/meanings/Normative/be fair
(1 1 3 4)    /COMMITMENT/meanings/Normative/be realistic
(1 1 3 5)    /COMMITMENT/meanings/Normative/responsibility
(1 1 3 6)    /COMMITMENT/meanings/Normative/trust

(1 1 4)      /COMMITMENT/MEANINGS/CAREER
(1 1 4 1)    /COMMITMENT/meanings/Career/add value-business-customer orientation
(1 1 4 2)    /COMMITMENT/meanings/Career/creativity & innovation
(1 1 4 3)    /COMMITMENT/meanings/Career/professionalism
(1 1 4 4)    /COMMITMENT/meanings/Career/ready for challenge
(1 1 4 5)    /COMMITMENT/meanings/Career/keep technically updated
(1 1 4 6)    /COMMITMENT/meanings/Career/want to succeed

(1 1 4 7)    /COMMITMENT/meanings/Career/Engineers' Commitment
(1 1 4 7 1)  /COMMITMENT/meanings/Career/Engineers' Commitment/special for
               engineers
(1 1 4 7 2)  /COMMITMENT/meanings/Career/Engineers' Commitment/not special for
               engineers
(1 1 4 7 3)  /COMMITMENT/meanings/Career/Engineers' Commitment/professional
               involvement
(1 1 4 7 4)  /COMMITMENT/meanings/Career/Engineers' Commitment/driving technology
(1 1 4 7 5)  /COMMITMENT/meanings/Career/Engineers' Commitment/committed to
               engineering

(1 1 5)      /COMMITMENT/MEANINGS/PERSONAL
(1 1 5 1)    /COMMITMENT/meanings/Personal/enjoy work
(1 1 5 2)    /COMMITMENT/meanings/Personal/get balance
(1 1 5 3)    /COMMITMENT/meanings/Personal/be people-concerned
(1 1 5 4)    /COMMITMENT/meanings/Personal/think of self as well as org

```

Initially, coding tends to be descriptive, but as the researcher works with the data, theoretical coding starts. A useful framework for examining the data is to consider the eight questions shown in Figure 4.6 (Lofland & Lofland, 1995).

Once all the interviews have been chunked and rough-coded, it is possible to print out all the text from references collected at the section nodes. An example would be all lines coded from all the documents on the answers to “Describe the senior role model of commitment”. The output can be examined, and analysed even without doing fine coding on the computer, if paper and pen are preferred at that stage. Indeed, computer coding should be done with the basic research questions in mind, otherwise much time could be spent on fruitless detail, but once the transcripts are imported and rough-coded, useful searches can be made and recorded. Results of searches can be indexed themselves, as analysis progresses. Matrices of branch nodes with “children nodes” (eg continuance commitment sub-categories) by base data nodes (eg gender or managerial level) provide visual summaries of the data, and tables indicate the presence or absence of coding at particular nodes, or the number of text units coded at the nodes. N4 has proved to be very useful in handling the large amounts of data involved, and greatly facilitates the theorising process, but it does not replace the task of intellectual analysis of the data. Another benefit of using N4 is that the easy retrieval of snippets of text with the facility of jumping to the source document in one keystroke to check the context, for example, will provide the basis for writing journal articles afterwards.

The data were fine-coded where appropriate, and a hierarchical tree structure built up, which was continuously adjusted over many months. When new nodes were created, a note was made of which interviews need to be checked again (easily done in N4 through a string search) so that other data could be coded to the new node where appropriate. The coding framework built up from the interview material was then examined in the light of the theoretical framework of commitment, and eventually restructured to a more abstract set of constructs in order to build theory. The meanings of commitment nodes were sorted into the higher order constructs of commitment found in the literature. Figure 4.6 shows part of the coding tree. Appendix 4.1 contains the full final Coding List. It shows how the Mowday et al (1982) and Meyer & Allen (1991) components of commitment (continuance, affective and normative) were used as branch nodes with lower order nodes, once the coding had been completed. Where nodes were identified with theoretical bases which had not been covered in the literature review, the researcher went back to the literature to seek appropriate analytical frameworks to analyse and code that data. An example of this is the finding on the use of impression management strategies to influence the manager of commitment, where Tepper’s (1995) categorisation approach was used as a framework for breaking down the text at the impression management node. This

"reconciliation" of the node system from the interviewees' responses coded by the researcher to the final node system based on theoretically-derived constructs is useful in that it helps to identify the contribution being made by the study, and sets the work in the context of previous research. Where the nodes do not fit the expectations derived from previous research, then the researcher has to check back with the data to see that it is properly analysed, check back with the literature to see whether something relevant has been missed, and revise the coding, with the possibility that something of interest is emerging. Unless the finding is set in the context of previous work, it may remain simply a piece of description. Two helpful books for researchers to understand not just how to use computers in qualitative analysis but to appreciate the implications for the researcher (in terms of methodology and practice) for using such tools, are Kelle (1995) and Fielding & Lee (1998).

#### **4.9.8 Thematic Content Analysis and Cross-Case Displays**

Using guidance from Miles & Huberman (1994) to undertake cross-case displays, attention was focused on the variables emerging from the data. A printout from the rough-coded section "Meaning of Commitment", which contained all the 37 unprompted responses to what is the meaning of commitment, was examined for patterns in the responses, by gender and managerial level. A spreadsheet was used listing cases and variables elicited from the data. Spreadsheets were then set up for each variable, so that details on each variable were readily accessible, and grouped by the managerial levels, gender etc for clarity. On the same spreadsheet, a list of the 37 interviewees and some of their demographic data were included. This was to assist in throwing up patterns which were not immediately obvious. For instance, it became visually clear from the columns in the spreadsheet that almost all the married people in the sample had mentioned "putting yourself out", whereas only one of the single people did so.

From the quantitative data on the unprompted meanings, graphs and spiderplots were drawn, which highlight the findings. The content analysis was then reported, backed up by quotations from respondents, giving not just an overview of numbers of people using the particular meanings, but providing a framework with which to review the richness of the contributions from these engineering managers. Together, the qualitative and quantitative data provide a deeper understanding of the meanings and the extent to which they are shared within the groups of holders.

#### **4.10 THE CAREER ANCHOR INVENTORY**

As so many of the UK interviewees talked about having a balance between work and outside commitments, it was decided to ask all subjects to complete a Career Anchor Inventory (Schein, 1990), to identify their self-concept of how they steer their career. See Appendix 4.2 for a copy of the Inventory.

The anchor, which becomes clearer over the years, should be the one motivating element that would not be given up, whatever the career options. Eight anchor categories have been identified: technical/functional competence; general managerial competence; autonomy/independence; security/stability; entrepreneurial creativity; service/dedication to a cause; pure challenge; and lifestyle. Those who had already been interviewed were asked by letter to complete the inventory. The remaining interviewees were given the inventory sheet to be returned by post. Thirty-four out of the thirty-five main interviewees completed the inventory. One did not respond to reminders. It was not considered appropriate to give the inventory to the two top Swedish managers with whom short discussions were held over lunch. Interviewees were offered feedback on their anchors, and this has been given by post. It should be noted that the Career Anchor Inventory gives only partial indication of the career anchor, which is not confirmed without scoring responses in an in-depth yet structured interview. The inventory identifies the motivation and career values part of the anchor. As career anchors were not the focus of the current study, it was decided that the 40-item inventory would provide sufficient information for the purposes of this study.

The inventory results were scored according to Schein (1990), put into an Excel spreadsheet, and the resulting anchors were included in the Nudist file sub-headers so that any printouts from the interview data would have the anchor recorded. This helped in putting responses into individual contexts, facilitating the analysis process.



#### **4.11 THE RATING OF MEANINGS QUESTIONNAIRE**

During the analysis of the first questions of the interviews regarding the unprompted meanings of commitment, it was decided to seek confirmation from interviewees as to how important the stated meanings were to their meanings of commitment, given the whole list of meanings, which comprised a surprisingly wide range of attitudes and behaviours. This enhanced the reliability of the data and analysis.

Ratings are a scale of subjective importance applied to each item in term, and yield attitudes rather than objective assessments, according to Oppenheim (1992, p236). Appendix 4.3 shows the questionnaire, which was sent with a letter asking for ratings from 1-7 on importance for each of the 36 meanings expressed, in two columns for importance to their own meaning, and to the perceived importance to the organisation's meaning. All the 17 UK engineers responded, and 18 out of the 20 Swedish engineers. Non-respondents were a male from Swed-A, (who did not return his career anchor inventory), and a female from Swed-B who left the company. Several reminders were sent to the non-respondents, but no replies were received.

As the two top Swedish engineers had expressed meanings of commitment although not taking part with full interviews, they were also sent the questionnaire, and one responded fully, whilst the other completed just some of the items so his response has not been used in the aggregated data shown in Chapter Six.

The ratings were put into Excel spreadsheets, and descriptive statistics were obtained for each variable. It was considered that, given the small numbers and the non-randomly selected sample, it would not be appropriate to undertake further statistical analysis. Graphs were plotted indicating the differences between groups (male and female, senior, middle and junior manager levels, British and Swedish etc) in the ratings of importance of the 36 meanings. Spidergram plots were used as it was easier to deal with a large number of variables, and the group differences could be clearly identified. Differences between the individual's rating and their perceived rating for their organisation were calculated and mapped in another set of spidergram plots to highlight the gaps between 'own' ratings and 'perceptions of organisational ratings' of importance of the meanings. The wider gaps were used to identify which of the variables should be further examined in the qualitative analysis of the interview data.

## 4.12 TRIANGULATION AND BIAS

### 4.12.1 Triangulation

Neumann (1997) states that triangulation is the use of different measures of the same variable, and that the measurement improves when several measures are used. The same can be said for qualitative investigations, where different data sources and methods may be used. Miles & Huberman (1994, p.267) say that:

“If you self-consciously set out to collect and double-check findings, using multiple sources and modes of evidence, the verification process will largely be built into data collection as you go. In effect, triangulation is a way to get to the finding in the first place – by seeing or hearing multiple *instances* of it from different *sources* by using different *methods* and by squaring the finding with others it needs to be squared with. Analytic induction, once again.”

As well as the interview data and questionnaires, secondary data was also collected. These included company reports, newsletters, graduate recruitment brochures (in which some of the interviewees featured), newspaper and other printed cuttings (one woman director was European Businesswoman of the Year, two other women featured in EPSRC/DTI booklets), corporate value statements (See Appendix 7.1A), and annual appraisal forms (See Appendices 7.1-7.3).

### 4.12.2 Enhancing Trustworthiness

Qualitative researchers have to grapple with positivist demands to be as objective as possible to enhance the quality of their findings, whilst viewing their own subjective knowledge as a tool with which to enhance their understanding and analysis of the topic. It is acknowledged that there is researcher-induced bias throughout the study, as the researcher has defined the topic, selected the appropriate literature, found the sample, constructed the instruments, interpreted and analysed the data and presented the findings. Lincoln & Guba (1985) say that trustworthiness is needed in qualitative work, through triangulated empirical materials. They define this as credibility; transferability; dependability and confirmability, which are the constructionist equivalents of internal and external validity, reliability and objectivity.

Validity is enhanced by the use of triangulated empirical data in this study. Multiple sources of evidence were sought from the same research subjects. Both qualitative and quantitative data were collected from the sample on the meanings of commitment, and the relative importance which they attached to those meanings. The data are therefore more reliable, and validity is enhanced.

Internal validity is a concern only for causal case studies, according to Yin, and this research is exploratory, seeking evidence of possible explanations, but not intending to make claims for causality. However, following Lincoln & Guba, credibility should be examined. The use of a single coder enhances the internal

credibility of the coding framework through consistency of coding, and the software allowed a definition and description of each node to be on the worktop whilst coding to tighten that consistency. The coding framework which started with in-vivo coding has been adjusted to take account of literature-derived categories where appropriate, to situate the findings in context with previous work.

External validity is enhanced by the use of respondents in three organisations, (including almost all of their top women engineers and matched male peers) in similar but slightly different work contexts. These respondents, and the company sponsors have been given the findings and invited to comment on them. Copies of papers have also been given to and discussed with the professional engineering institution. The three companies are world leaders in their industry, and hence, these findings may be of relevance in a wider context.

The use of thematic content analysis has allowed the findings to become more dependable, as the counting of instances (always kept in their textual context in N4, and aligned with other confirming or disconfirming instances) ensures that the researcher does not fall into the traps mentioned by Miles & Huberman (1994, p.263) of seeing only what they want to see, not keeping track of frequencies, over-emphasising data from some respondents etc.

This researcher does not take the view that another researcher should code some of the data so that checks could be made of inter-coder reliability. In her view, her own experience, background and understanding of the field setting in the two countries would not be found in another researcher, and the strength of this work is in her unique position to undertake this study. Greene (1994, p. 539) says "Qualitative evaluation à la Eisner or Guba & Lincoln is unabashedly subjective, unapologetically imbued with the individual perspectives and frames of the inquirer", and that "from an interpretivist perspective, it is precisely the individual qualities of the human inquirer that are valued as indispensable to meaning construction". (Also see Hill, 1982). An alternative, in such an interpretive piece of work, would be instead of objectivity, to talk of confirmability, as the researcher has made efforts to write a clear procedural account of the design and analysis so that others may follow how the conclusions were reached. The researcher has reported the meanings of her respondents, clarified how she has interpreted and structured their meanings, and linked that to the theoretical meanings from the literature.

Further confirmation has been achieved by asking respondents to weight some of the data, and by sending all of them reports, and asking them to review and comment on the findings. A meeting was held with the UK-A sponsor after the analysis to review with him the outcome of the work. Similar meetings were held

with the Swedish sponsors, and a written report was made to Swed-B's vice president of engineering.

#### **4.12.3 Bias due to Gender**

There may be bias due to the female gender of the researcher, when interviewing males about gender issues, because they may assume the interviewer has feminist views and seek to respond to deny any bias in their attitudes. Women researchers can also face issues of bias when interviewing females where assumptions may be made on either side about feminist tenets. According to Oakley (1988, p41), "in most cases, the goal of finding out about people through interviewing is best achieved when the relationship of interviewer and interviewee is non-hierarchical and when the interviewer is prepared to invest his or her own personal identity in the relationship". This researcher is a practising manager herself, with experience of evaluating commitment in subordinates. She had undertaken an engineering course at degree level, as one of few women students. She had done a university project on the UK and Swedish combined heat and power industries, had translated engineering management books from Swedish and Norwegian, and was familiar with the gas turbine technology. The researcher also had mutual social contacts across the range of managerial levels of the sample, and was comfortable in dealing with all levels of people. This allowed for rapport with the interviewees, so that people felt willing to discuss personal meanings and experiences in the interviews.

#### **4.12.4 Bias due to Social Desirability of Responses**

Miles & Huberman (1994) warn that informants may bias their responses to be amenable to the researcher. There may have been bias in responses from engineers in UK-A and Swed-B, due to the researcher's introduction through top management, when interviews were held with the technologists, but it is hoped that this was not a problem. Elite bias should be countered to some extent by the inclusion of the three levels of management sampled. There was trust because of mutual contacts, professional conduct of the interviews, and promises of anonymity over quotations. The researcher remains in friendly contact with many of the interviewees, and took every opportunity to meet respondents in the workplace settings. Whilst the friendly contact may have introduced bias, it has allowed deeper discussion of the issues, it allowed further triangulation of data by asking respondents to comment on provisional findings, and the researcher had a better understanding from which to analyse the data.

#### **4.13 FOCUSING THE OUTPUT**

As with any doctoral study using qualitative methods, there is likely to be far too much data collected. This research has been no exception. Lofland & Lofland (1995, p.212) advise that:

“Virtually no matter how you organize your report, some of your most favored bits of analysis – codings, memos and even fairly well developed draft pages – will likely not fit logically into the major scheme of organization you come to use. ...You must, then, live with the “agony of omission”.”

The second phase of interviews in UK-A was more focused than the initial set of six, and the interviews in Sweden were more focused still. Even so, there was a fair amount of data which was analysed but omitted in the final thesis. In particular, this included data about the individuals' view of the two way aspects of their commitment, and the focus of their commitment. Although that data and analysis informed the researcher, the inclusion of that data in the thesis was making the development of the argument less clear, and hence, eventually it was decided to omit that data from the final thesis, although papers may be written from that work later.

#### **4.14 CONCLUSION TO CHAPTER FOUR**

This chapter has outlined the realist philosophical approach taken, and has explained the rationale for the research design. It has dealt with the issues relating to a two-country study, acknowledging the bias which that introduced, but establishing the contribution to be made in using this cross-national design. An account has been given of the preliminary study which led to the focus on perceptions of commitment. The computer-assisted qualitative analysis of the interviews has been described in some detail, so that an understanding can be gained as to how the coding was derived. Efforts to enhance the validity and reliability of the data have also been reported, as well as a brief account of what was not included in the final thesis.

Next, the thesis moves on to examine the findings of this research. These are presented in three chapters, Chapter Five on meanings of commitment, Chapter Six on terms of commitment in relation to the meanings, and Chapter Seven on the assessment of commitment. The key data on the meanings of commitment is the focus of Chapter Five.

## CHAPTER FIVE: MEANINGS OF COMMITMENT

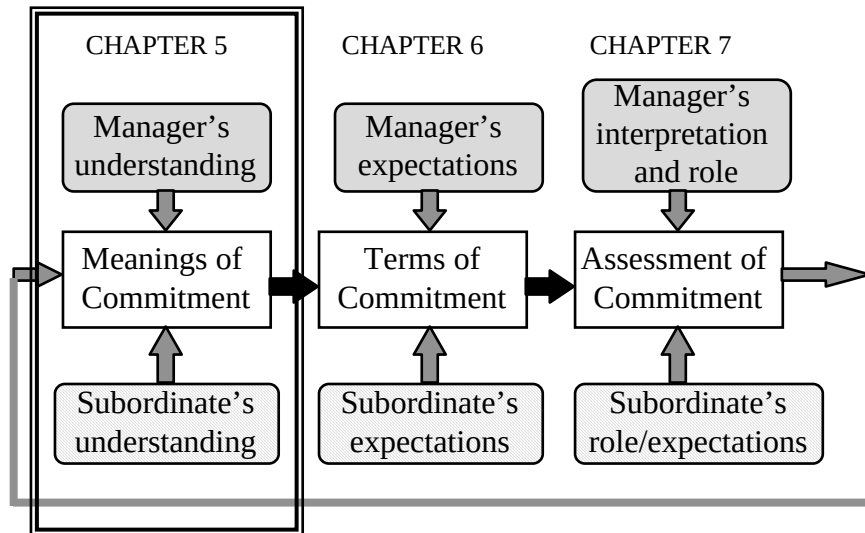


Figure 5: Chapter Five – Findings Map

## 5.1 INTRODUCTION TO CHAPTER FIVE

Following the results of the pilot interviews and focus groups described in Chapter Four, this chapter contains the results of the key questions about the meanings of commitment held by male and female engineering managers in the three companies. Meaning refers to “the cognitive schema that map our experience of the world, identify its constituents and relevances, and how we are to know and understand them” (Ranson, Hinings & Greenwood, 1980, p.5). Meaning is defined as the comprehension by social actors, or an understanding held by people – their beliefs, motivations and purposes, which underpin and explain their social actions and the resulting context within which those actions take place (Jary & Jary, 1991).

Figure 5 maps out the position of this chapter in relation to other findings. This chapter focuses on the surfaced meanings of commitment, the evidence, or the **content** of “commitment”. Chapter Six will consider the **social context** in which the meanings are understood, accepted and negotiated, the terms of commitment, as part of the “psychological contract” which reinforces the beliefs and motivations of the employee. Chapter Seven will review the social **occurrence** in which the meanings (the content) have their key importance in this study, the assessment of commitment. Together, these phenomena form the **comprehension of commitment as “meaning” to the social actors**, which is the core of this thesis.

Section 5.2 indicates some of the difficulties in the elicitation of meanings, and then Section 5.3 reports the engineers' initially expressed meanings through their descriptions of senior role models of commitment, and their own personal meanings of commitment. Next, in Section 5.4, the most frequently given unprompted meanings are reported. These were task delivery, putting yourself out, involvement and quality. A review of the responses about hours over the norm is also included here. In Section 5.5, the meanings given more by senior managers and directors than by those at lower levels in the companies are described. These were being proactive, being ready to take on challenge, being creative/innovative, and adding value/business/customer awareness. Section 5.6 reviews male and female differences, whilst Section 5.7 examines not just gender but also organisational and national differences in responses from the groups of male and female engineering managers in three organisations in two countries.

The discussion section at Section 5.8 indicates that the meanings differed in content and in emphasis from those expected from the commitment research literature. In particular, continuance commitment (Mowday et al, 1982) hardly features in this set of responses, whilst there is a set of meanings around getting a balance in the work/life relationship which is very strongly indicated. The top managers' set of meanings already described in Section 5.5 also indicated a much stronger personal career drive as a desirable "committed" set of behaviours, than the "considerable effort" on the organisation's behalf component of Mowday et al's (1982) conceptualisation of commitment.

Later in Section 5.8, British and Swedish sample differences are reviewed, followed by a subsection on Managerial Level and Gender differences overall. There is an important analytical finding in Subsection 5.8.3, in which visibility emerges as a gender-differentiating property of commitment, indicating a possible explanation for the reported male managerial perceptions that women managers are less committed than their male peers. This chapter closes with Section 5.9, pulling together the evidence of commitment as identified by these engineering managers in leading world-class companies, and setting the scene for the next chapter, which explores how the engineers manage their commitment relationships, the terms of their commitment in their psychological contracts.

## 5.2 ELICITATION OF MEANINGS

Surfacing the subjective meanings of commitment from engineers turned out to be quite a difficult task. Most engineers are more comfortable in explaining technology rather than “feely-touchy” (*sic*) things like commitment, as one senior engineer put it. Clearly the qualitative methodological approach was the most appropriate for this task, allowing for sensitive questioning. Many of the engineers interviewed said that they had never thought precisely before about the meaning of commitment, nor how they recognised it. They simply had a “gut feel” when commitment was there, and it underpinned how they felt about their subordinates, their peers and their managers. They used the words about someone being committed, without explicit communication, yet they felt that they shared a common understanding of the term.

“So it’s a perception almost, I get a feeling from people as to whether or not I feel they are committed.” (*British male director*)

“That is not easy. I mean, it is usually not one thing, more a combination.” (*Swedish female middle manager*)

“We use the words. We get into conversations as to whether so and so is committed or not, or how committed” (*British male senior manager*)

“You see whether they are bothered, whether they are just going through the motions. And I don’t know of any way really, of finding somebody, whether they are committed or not, without just observing and getting a very subjective view.” (*British female middle manager*)

This difficulty in expressing what commitment means is dealt with in more detail from another angle in Chapter Seven, Assessment of Commitment, as the tacitness of understanding forms one of the dimensions of the commitment appraisal process.



### 5.3 DESCRIPTIONS OF SENIOR ROLE MODELS OF HIGH COMMITMENT

#### 5.3.1 The Use of the “Describe a Senior Role Model of Commitment” Question

At the start of the first six interviews (all with British women), interviewees were asked to describe someone senior to them (without giving a name, although some of them chose to do so), whom they thought to be very committed, and to explain how they knew the person was committed. They were then asked what was the meaning of commitment to them personally. After reflecting on the first set of transcripts, it was decided that for subsequent interviews, it would be better to reverse the order of these questions, to avoid a wide range of leadership qualities other than commitment being brought into the discussion. It is felt that this would not bias the results significantly. As the sample included all the middle management level women engineers in the engineering department at UK-A at that time, it was not considered appropriate to exclude the first six interviews from the main study. All interviewees were later asked to rate in importance the characteristics of “commitment” that were important to their own meaning so any bias should have been dealt with as well as possible. The sample of 35 engineering managers and directors included 16 matched male/female pairs.

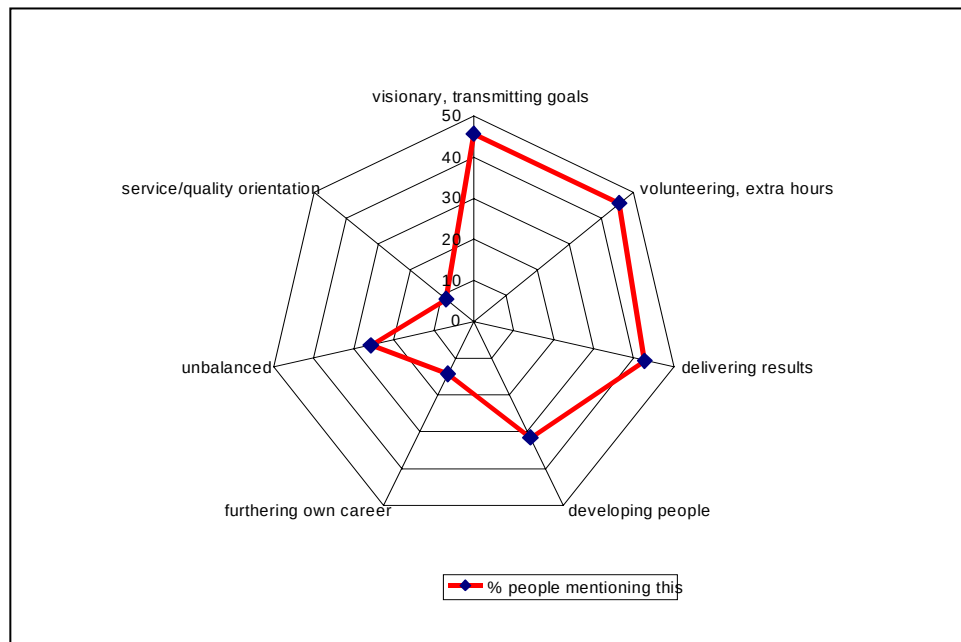


**Figure 5.1: Characteristics of Senior Role Models of Commitment**

It was originally planned to ask for both male and female senior role models of commitment, but only six British engineering managers had any experience of working with more senior women, and in all cases this was indirect experience. They felt this was not sufficient to comment specifically on their commitment. None of the Swedish engineers had experience of working with more senior women. Seventeen of the sample gave male role models. The remainder talked of more than one. Two engineers nominated themselves as the most committed people they knew. The descriptions which follow are therefore all relating to male role models.

#### 5.3.2 Key Role Model Characteristics of “Commitment”

This “describe a role model of commitment” tool provided rich insight into what “commitment” ideals were held in the companies, tempered by comments about

balance in senior managers' working lives. Figure 5:1 shows the key features mentioned by the engineers. Almost half the interviewees talked about the quality of having vision, charisma, and being able to transmit the corporate goals down through the layers of the company to the individual.

"It comes back to enthusiasm and loyalty, and some sort of verve. I don't want to use the word "zealot", but it does come to mind, you know, someone who thinks within. .... Zealous about all aspects of the enterprise, the stakeholders, zealous about making sure everything is right for the betterment of the company". (*British female director*)

"I think many at the director level are committed, yes. It is strongest in the way they talk, which gives me that feeling that this is something which is very, very important for them..... There is a policy, an explanation from the company down to lowest level, that everybody should know what is the meaning of the company, what we want to do and so forth". (*Swedish male middle manager*.)

(*Describing a project director*) "You understand why he wants to get to where he wants to get to, for the company, the business, and you feel, yes, I will do everything I can to get you there, So you feel you will go with him, and do as much as you can for him." (*British female middle manager*)

A similar number talked about those who took on extra responsibilities, working extra hours for the good of the company, sacrificing family holidays, for example.

"Some people, especially in senior positions, you can see that they give up an awful lot of their time to the company. I don't think that's the only way of measuring it, but that's one easy one. So they work very long hours and give up other things and put the company first." (*British female middle manager*)

"I see them, the managers above me. Not my closest manager, he also works a lot, but the ones above him, they work tremendously much. Long hours, I don't know what they do when they are working, but I can see that they are working long hours and probably are working very hard too." (*Swedish male middle manager*)

Delivering of results was mentioned almost as much as the first two features above, often coupled with the visionary style to get people to understand, and then pull together to deliver objectives.

Describing a chief engineer: "He is very committed to the success of his project, very singly-mindedly, I think, committed to the success of that. He comes across because he drives people hard. It's quite clear that when something isn't going so well, then he certainly feels that, and he makes people feel that what we're doing really matters, and we must do something we said we were going to do, and we must achieve success, because there's a lot at stake if we don't. ....He instils in other people through different means the same sense of urgency to get the job done." (*British male middle manager*)

There was also some mention of these highly committed role models driving not just the projects to completion but also seeking recognition for their own careers.

"The amount of time and effort that they were prepared to give up, the unsociable hours they were prepared to work, where they've got to in the organisation – the one thing isn't entirely linked to the other but there is an indication there. One of the key things about knowing someone is committed is when they talk about the area. It's obvious that they are very interested in

it, that their heart's there, and that it isn't just a job, it's not just to fill the time to get a salary. They believe in it, and believe they can contribute something significant to it, and probably wanting to be recognised." (*British female middle manager*)

Some talked of the need for balance, that although these senior people were to be recognised as committed, this was not something which they themselves would want to do.

"He has no free time. His life is his job, and it doesn't matter to him if he works 8 hours each day or 12 hours. He does everything to learn more and more, and I don't think I can ever be like him, and I don't want to be like him, but I think he is one of those people I can use this word for." (*Swedish female senior technologist*)

"It comes back to commitment. He does a tremendous amount of overtime, but whether or not the purpose is there in terms of the efficiency of how he's working is sometimes in question, in my mind. And therefore, if you like, trying to balance what I said earlier in terms of the fact that if someone is working 18 hours a day, then that to me is not very efficient. You are highly committed, but to my mind, you are not becoming very efficient." (*British male director*)

Having regard for people and their career development was another important feature of the senior role model of commitment.

"It would include the hours they work, the range of activities that they are willing to contribute to. It would include their willingness to help others, that isn't going to help their contractual reward against which their own job performance is measured." (*British male middle manager*)

"They are interested in what we are doing, so they don't just leave us so that we can do our own thing, and then a year later discover that we did the wrong thing or something. But they are trying to keep updated all the time". (*Swedish male project leader*)

Some interviewees felt that this committed interest in their work created an atmosphere which allowed them to be more creative

"They [the commitment role models] have a lot of good ideas, or at least, are trying to always get new ideas from every person, and always asking really good questions, even if you are a boss, you know, saying is this how we should do it, asking persons perhaps who know. ... It is to ask the right questions, and the people feel safe inside their organisation, so that you can work without feeling scared of saying the wrong thing. You can always come up with an idea, okay perhaps it is not good but – that is the sort of thing that is important for a leader or manager." (*Swedish male junior manager*)

Three people also talked about a service and quality orientation, but this was not a strong feature for them or the other respondents.

### **5.3.3 Consideration of Responses by Gender of Interviewee**

Separating the responses by gender and country gives further insight into the results, which are shown in Figure 5.2. This shows that Swedish males focus on vision and transmitting goals, delivering results and developing people. In marked contrast, Swedish females talk less than their male peers about the

characteristics of developing people, being visionary, but more about long hours, lack of balance and furthering of own career.

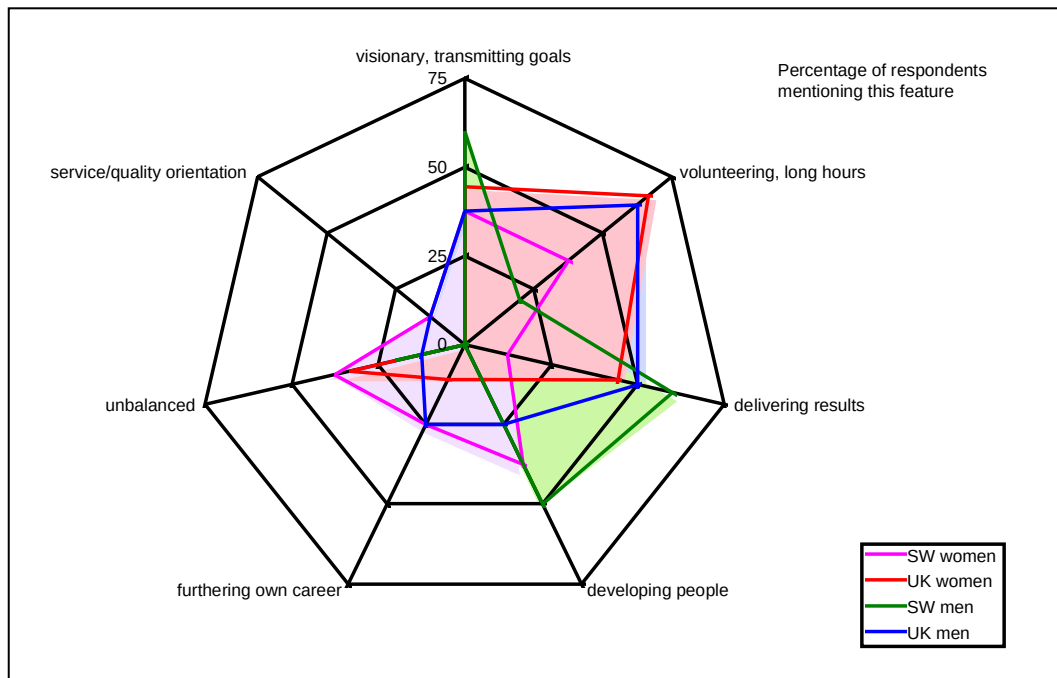


**Figure 5.2 Characteristics of Senior Role Models of Commitment, by Gender of Interviewee mentioning these Characteristics**

The British results show closer male/female patterns than the Swedish results, with men and women putting a similar emphasis on long hours and volunteer activities, delivering results and having vision. British women talked less than British men about developing people and furthering own careers. Gender similarities are strong over “unbalanced”, where both British and Swedish women talked about this more than their male counterparts.

#### 5.3.4 Outstanding Role Models of Commitment

To put the individual characteristics into context, it is useful to review a holistic picture of a senior role model of commitment. In UK-A, several of the senior engineers described the same director as a role model of commitment, identifying him even though this was not requested. One description of his kind of commitment is given below.

“He is committed, my feeling about him is that he is genuinely thinking very hard about what could be best for UK-A all the time. His whole life is thinking about the company issues, what could be done, and putting in programmes to sort out this, that and the other. And he is somebody who uses a very diverse network that he inputs into company activities, and wants to be involved in company activities. You know, as an engineer, he needs to be involved in the business planning side and the strategy side, very much the big picture. And he's spending a lot of time battling most of the time with the people who own those sorts of areas, who may think that, say, structural engineering isn't your turf. And I don't think that's just megalomania on his

part, I think it genuinely is that he thinks there's an important contribution to be made, and he wants to make sure that it is put in there." (*British female director*)

Having role models is important (Horgan, 1989), as they set the standards, and provide inspiration to those below. Few engineers had experience of working with senior women engineers, but all knew of the senior-most women. One of the youngest female engineers said:

"I think that you need to know, to have a role model, that it is an option [for women to succeed]. Just like there's now a couple of UK-A directors, XX is one of the directors who are women, and it gives you a better feeling that it is possible. That is important." (*British female senior technologist*)

Following on from the initial two questions asking interviewees to state their own meaning of commitment, and to describe how they knew a senior role model was highly committed, there was a discussion about the meanings elicited. From these unprompted responses, a list of 36 component parts of commitment was drawn up. These responses are reported in the next section.

## 5.4. THE MOST COMMONLY CITED MEANINGS OF “COMMITMENT IN A WORK CONTEXT”

### 5.4.1 The Meanings of Commitment

A detailed thematic content analysis was undertaken on the responses to the first section of the interview, and confirmation of the content analysis results will be presented in this chapter, using appropriate evidence from the respondents. Miles & Huberman (1994, p.253) suggest that counts are useful in qualitative analysis “to see rapidly what you have in a large batch of data, to verify a hunch or hypothesis, and to keep yourself analytically honest, protecting against bias”. These findings helped to provide focus for the analysis of the remaining qualitative data. Certainly, the use of the content analysis technique countered any bias which may have arisen from the overweighting by the researcher of statements from a small number of more eloquent interviewees. It made the interview analysis more robust, and as it is backed by quotations from the respondents, has not diminished the rich picture of the commitment meanings held by male and female managers.

**Table 5.1 Percentage of respondents using these terms as unprompted meanings of commitment**

| Meaning                          | total % | Meaning                                      | total % |
|----------------------------------|---------|----------------------------------------------|---------|
| task or objective delivery       | 65      | Responsibility                               | 32      |
| put yourself out, do extra       | 65      | be concerned for people                      | 30      |
| involvement                      | 59      | find solutions, troubleshoot                 | 30      |
| quality                          | 59      | Availability                                 | 22      |
| be proactive, use initiative     | 51      | be creative, innovative                      | 19      |
| do best for organisation         | 46      | be professional                              | 19      |
| put in the extra hours           | 41      | add value, business-aware, customer-oriented | 19      |
| want to succeed, need to achieve | 41      | share information                            | 19      |
| dedication                       | 38      | get balance between work and outside         | 19      |
| be ready to take on challenge    | 35      | want to make a contribution                  | 19      |
| enthusiasm                       | 35      |                                              |         |

Table 5.1 shows the percentage of the 37 engineers (the 35 main sample plus the two Swedish leaders) who mentioned the meanings above in their responses, which were unprompted. This question was intended to capture their first thoughts on the meanings of commitment, though more discussions followed during the rest of the interview, as subjects had time to reflect. Very few new categories (eg drive, energy) emerged in later parts of the interviews, but it was felt that they could be included in the existing 36 meanings (eg drive as part of “being proactive”, energy as part of “enthusiasm”. There are a number of other responses (trust, enjoying work, being realistic, having a holistic view, being fair,

control, identifying with the organisation, wanting to stay in the organisation, keeping technically updated, duty, having judgement, pride and loyalty) which were cited by less than a fifth of the sample, of which the most interesting may be that only one senior and two younger engineers mentioned any kind of “continuance commitment”, ie wanting to stay in the organisation.

#### **5.4.2 Task Delivery**

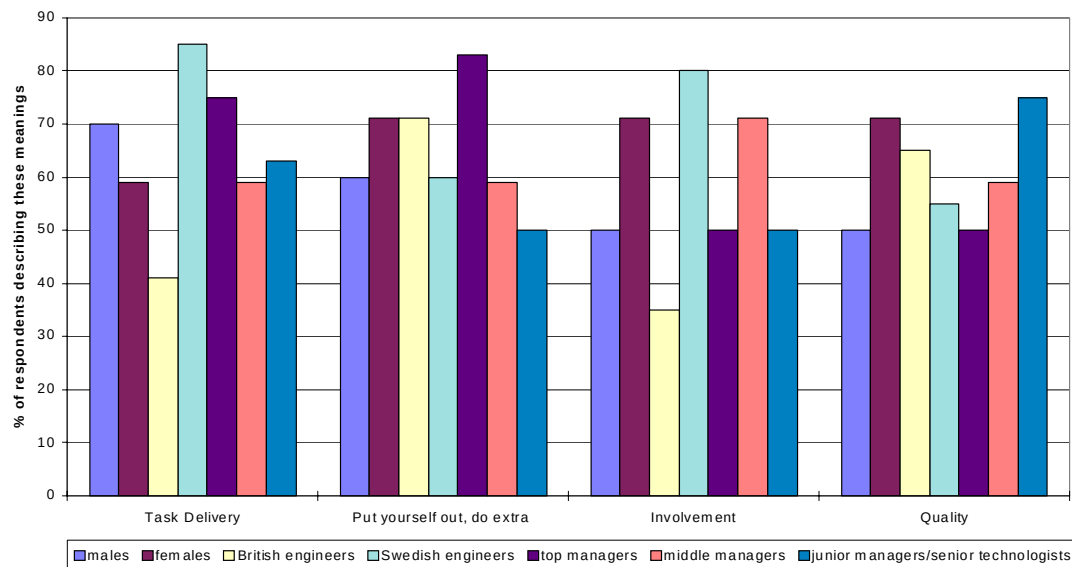
Across all the sample, as shown in Figure 5.3, the top responses were Task or Objective Delivery, and Putting Yourself Out/Doing Extra, with two-thirds of engineers mentioning these. The breakdown shown later in Figure 5.4 identifies that senior engineering management saw them as more important than did middle and junior management/senior technologists. An explanation could be that the senior managers are more personally entrusted with delivery of larger goals, and know that they have to put in whatever effort it takes to deliver what was promised. There were differences between British and Swedish engineers, particularly on “task or objective delivery”, cited by 85% of Swedes, but only 41% of British engineers. This seems to be a national rather than gender difference in meaning, confirming Lawrence & Spybey's (1986) comments on Swedish managers' emphasis on task delivery as a key part of organisational life. Fewer women than men responded with “task delivery” as part of commitment, 59% to 70%. Task delivery was seen as something often linked to putting yourself out, instrumental commitment for successful delivery, and senior male managers in both Britain and Sweden mentioned this, as the following quotes show:

“sufficiently dedicated to achieve those objectives” (British male director).

“It's a willingness, or even a desire, to do, to put themselves into difficult circumstances, to do the difficult thing, if that is what the business requires or what the situation requires.” (*British male senior manager*)

“If you take on a task with a goal, then you should work towards that goal ..... commitment means that you should, you **have** to deliver to that date.” (*Swedish male top manager*)

As both Britain and Sweden had similar placing close to the centre of Trompenaars & Hampden-Turner's (1997) continuum of person vs. task orientation, a much closer result could have been expected here. However, it could be that the language had an impact, Swedes possibly being influenced in their thinking process by one of the most usual translations of commitment, as *åtagande*, a commitment to deliver what was agreed. All three companies had the feature of task delivery in the employee annual appraisal forms. However, as interviewees had the opportunity to use as many words as they wished to describe commitment at this stage, it is significant that more than twice as many Swedes chose this term than the British.

**Figure 5.3 The Four Most Frequent Responses**

### 5.4.3 Putting Yourself Out

Women engineers responded more often with “Putting yourself out” than men. When the data were examined more closely, it became clear that more British women gave this meaning than their Swedish women engineer counterparts, whose response level for this item was the same as the British men. Slightly fewer Swedish men gave this meaning. In contrast to British women, Swedish women have the benefit of more accessible and more affordable childcare, and organisational flexibility (Brewster et al, 1996). Evidence from the Swedish interviews shows that Swedish women expect husbands to share regular childcare duties such as taking and collecting children from daycare. Hence the Swedish women engineers may have more similar patterns to the British and Swedish men in terms of having to put themselves out, which may explain the responses given. The evidence indicates that the British women with children (and some of the Swedes) have to sort out family responsibilities when work demands it, somewhat more than men do.

“I can, where the job demands it, rearrange my life to suit the particular commitment I am being asked to do, the particular work problem that needs to be done, the timescales to meet, or a meeting which is not in my normal day, or go away on business - that does interfere with my commitments outside work, but on the whole, if I could possibly manage it, I would juggle everything around, and as long as I have a support service round me that can handle the fact that I have children, that I have more of a caring role than my husband who is also a XX employee, more of it falls to me to organise this, that and the other, to make sure that they are at the right place at the right time, school, playgroup, so I have to have that as well always at the back of my mind. Where I can, I do juggle my other commitments, but I can't divorce the two.” (*British female senior specialist,*)



“my whole life is a commitment ..... to do the best in my job, at the same time do the best for the kids and for the family”. (*Swedish female middle manager*)

“It’s like being asked to go abroad at two minutes notice, and going.” (*British female senior technologist*)

Three-quarters of married interviewees (and those living with partners) mentioned putting yourself out, compared to only one of the four single engineers. The very senior women were making considerable disruption to their personal lives, including taking opportunities outside their normal towns of residence.

“Now I have to live in a flat in xxxtown, and I live in yyycity, so I have to give up seeing my husband during the week most of the weeks, and that’s a compromise.”..... “I have to arrange my life”, (*British female director*)

“You have to be prepared to take more compromises with your personal life, than when as a junior or lower middle manager, when, if you’re in the right job, you can still keep a fairly regular life style with it. You certainly can’t now. You have to be committed to provide time when you’d rather not.” .... “You have to make a lot of choices”, (*British female director*)

“it means subjugating some things that you might wish to do for yourself” (*British female director*)

There were expectations from the British males that committed managers would put themselves out both at work as good organisational citizens, and at home by sacrificing booked holidays and family Sundays for the company’s needs, for example.

“But yes, it would include the hours that they work, it would include the range of activities that they are willing to contribute to. It would include their willingness to help others, that isn’t going to help their contractual reward. So they are willing to do things that aren’t the things against which their own job performance is measured.” (*UK male middle manager*)

“My view of commitment means that you should make yourself available ..... within reason. I mean, I have cancelled holidays in the past to come into work, come in on Sundays.” (*UK male director with school age children*)

#### **5.4.4 Involvement**

The respondents used the term “involvement” in a similar way to that of Buchanan (1977), as “the psychological immersion or absorption in the activities of one’s work role” (p.533). There was a difference between men and women engineers on “involvement”, where half the males but nearly three-quarters of females, including all the Swedish women, mentioned this. The senior managers responded less frequently with the word “involvement” as a meaning of commitment than their middle management colleagues. This may be because they have had to be involved to achieve their senior positions, so involvement is the norm for them, whereas it is a desirable feature for those lower down the organisation, and may therefore have been mentioned in this introductory question about the meaning of commitment.

“Commitment to me would be to assume the responsibility and take it to your heart, if you like. At the deeper level, you get personally involved in an issue” (*Swedish male middle manager*)

“The more involvement I can feel about what I am doing, the stronger will that commitment be, because that is very important.” (*Swedish male middle manager*)

“You feel a sense of allegiance, you feel part of it, part of the team” (*British male middle manager*)

“Commitment means involved - a certain amount of dedication, loyalty, will and enthusiasm towards whatever it is an organisation is trying to achieve. And implicit in that is a commitment to all aspects of that entity, to its people, particularly to its employees, to its products or services, to its customers, to its shareholders, to its suppliers, to its partners, its stakeholders, and also to its neighbours.” (*British female director*)

“I think involvement is very important to be able to manage with delivery and duty. I think you have to have that in you.” (*Swedish female middle manager*)

Only a third of British engineers mentioned “involvement”, compared with 80% of Swedes, including all the Swedish women but only 44% of the British women. This may be a reflection of the differences in participation at work between the two countries. Sweden has had worker representation on boards for many years, and employees expect to be involved at work (Holden, 1996). Swedish companies, with their more inclusive and collective management style (Hofstede, 1980/84) had made efforts to ensure that employees were regularly informed about corporate goals and how they could individually contribute to fulfilling them. In Hofstede’s study (see Chapter 2.6), Sweden was ranked 10th, considerably below Britain’s 3rd ranking on a measure of individualism versus collectivism based on work goals, related to “the emotional (in)dependence of an individual on groups, organisations or other collectivities”. A further Hofstede dimension showed Sweden with bottom ranking of 39 countries on masculinity, whilst Britain was near the top in 8th place. The predominant work style on the “masculine” side is related to assertiveness and control in organisations, whilst the “feminine” work pattern is more nurturing, more inclusive. The Swedes’ much higher use of the meaning of commitment as “involvement” fits the Hofstede model of Swedish corporate culture as more collective and more feminine in management style, and also fits the Trompenaars & Hampden-Turner (1997) model on which Sweden was more communitarianist than Britain.

#### **5.4.5 Quality**

Three-quarters of junior managers and senior technologists in the sample responded with “quality”, which may be related to the younger age (of most of them) where they see quality as key in their performance appraisals. Women as a group responded with similar frequency (71%) to the junior managers with “quality” as part of commitment, but all the Swedish women middle and junior managers used the term. In contrast, only half the men, and only half the senior

managers referred to quality when discussing the meaning of commitment. Quality is an integral part of this industry's profile, and quality issues particularly those related to safety are highly regulated externally as well as internally. Quality drives were reported by Söderström (1993) across Swedish companies, and "operate with integrity" is the fourth item of the corporate values statement in the British company (Appendix 7.1B). Integrity is a key feature of day-to-day life, as senior engineers have to accept the quality of technical data from often quite junior specialists. However, in these interviews, as well as discussion of the individual's meaning of commitment, people were asked what were the features of commitment that would be shown by top managers as committed role models. So concern for quality would be the norm, perhaps less remarkable for senior managers. Other facets of commitment such as being ready for challenge, and showing high initiative levels may have come more readily to mind to senior managers at this initial stage of the interview.

"I quite often think of time as commitment, but it is not really time, it is rather quality" (*Swedish male middle manager*)

"You need to be committed to do a quality job. You've got to have a bit of pride in the work that you do, and be thorough in the way that you do it." (*British male senior technologist*)

"I would say, their enthusiasm and how quality minded they are, and what they actually produce. First you only see the enthusiasm, and what kind of person they are, later you see what they produce. But sometime, people that have enthusiasm move on before they prove that they can produce!" (*Swedish female middle manager*)

"it's the quality of work done in 8 hours, not how many hours you stay after working hours" (*British female senior technologist*)

"You have some engineering pride, you want everything to be of good quality, and you want it to be right. And if you are designing things well, even if it takes a long time in this business, you see some results. And you want to have good designs and good results." (*Swedish female middle manager*)

#### **5.4.6 Respondents citing Hours put in as Meaning of Commitment**

There were large differences between the numbers of sampled engineers in the UK (65%) and Sweden (only 15%) who responded that commitment is to do with hours put in over and above the normal working hours. Nearly half of the women engineers gave this response, compared to only a third of their male colleagues. About 40% of middle and lower managers also gave this response. The work patterns in the UK with the longest average working hours per week in Europe are likely to have influenced this response. Swedish engineers would largely be unwilling to work long hours over the normal working week other than when absolutely necessary. Female engineers may be responding that commitment is "hours put in" because they recognise that this is a problem area for those

women with small children - they are often seen as less committed because they are not able to work overtime.

“Certainly some people in senior positions, you can see that they give up an awful amount of their time to the company. I don’t think that’s the only way of measuring it, but that’s an easy way. So they work very long hours, and give up other things, and put the company first. I know some people who have to give up booked holidays for the company - that is definitely commitment.”  
(*British female middle manager*)

“Because if you work longer hours, the efficiency drops. Especially when you have some unreasonable amount of overtime. Only a few people that can handle that, very few. And they do it quite well, but there are many people, they cannot handle it. Most people are efficient during their normal time plus a reasonable amount of overtime. But if you pass that, your efficiency drops significantly.” (*Swedish male top manager*)

“commitment is working many hours after working hours.” (*Swedish female senior technologist*)

On the other hand, many engineers say that is not “less commitment but less availability”, a different concept, but equally important for organisations when they need managers to work outside normal hours.

“A lot of people look upon commitment as a willingness to put in all sorts of hours. I think there is an element of that, but that’s not the whole story. It’s dedication, if you’re only available during eight hours of the day, dedication during those eight hours is just as much commitment as someone who stays there till midnight.” (*British female senior technologist*)

## 5.5 TOP MANAGERS' MEANINGS

### 5.5.1 New Meanings of Commitment: Be Proactive/Use Initiative, Challenge, Creativity/Innovation, Add Value/Business/Customer Awareness

Figure 5.4 shows the meanings which were given more by top managers than by middle and junior managers or by any other group (males, females, British and Swedes). The measurement is of the percentage of managers at a given level who mention the particular meaning. Where a manager mentions the meaning more than once, or describes it once or more often in other words, still only one count is given for that manager.

A top Swedish engineer said that the kind of commitment most valued by the company was the “ability to collaborate, to be actively involved, to be creative, to learn, and to accept mistakes and learn from them”. The attributes mentioned more by top managers may be particularly relevant for engineers in the increasingly global and competitive workplace. The development of engineering talent has long been a major consideration in the aerospace industry, but never before has the emphasis been to this extent on business awareness, international competition and collaboration, and innovation, with the ownership of that push for career development being transferred to the individual, yet facilitated by a learning organisation. Growing by overcoming challenge is a means whereby both company and individual benefit.

From the responses, senior managers are more readily expressing the need for active, involved commitment to the organisation and to the personal career, through being proactive, taking the initiative, seeking and taking on challenges, being creative, innovative and adding value to the company and themselves.

### 5.5.2 Be Proactive, Use Initiative

Figure 5.4 shows that there were similar levels of responses from both UK (53%) and Swedish engineers (50%), but 60% of males responded with this concept, compared to only 41% of women. This seems to be an important feature of commitment for senior managers (67%), who responded in this manner nearly twice as often as junior managers/senior technologists, middle managers falling in between. This may impact on how commitment is evaluated by senior managers. Proactive personality (the disposition towards proactive behaviour) is significantly related to career success (Seibert, Crant & Kraimer, 1999). Some engineers made the following comments:

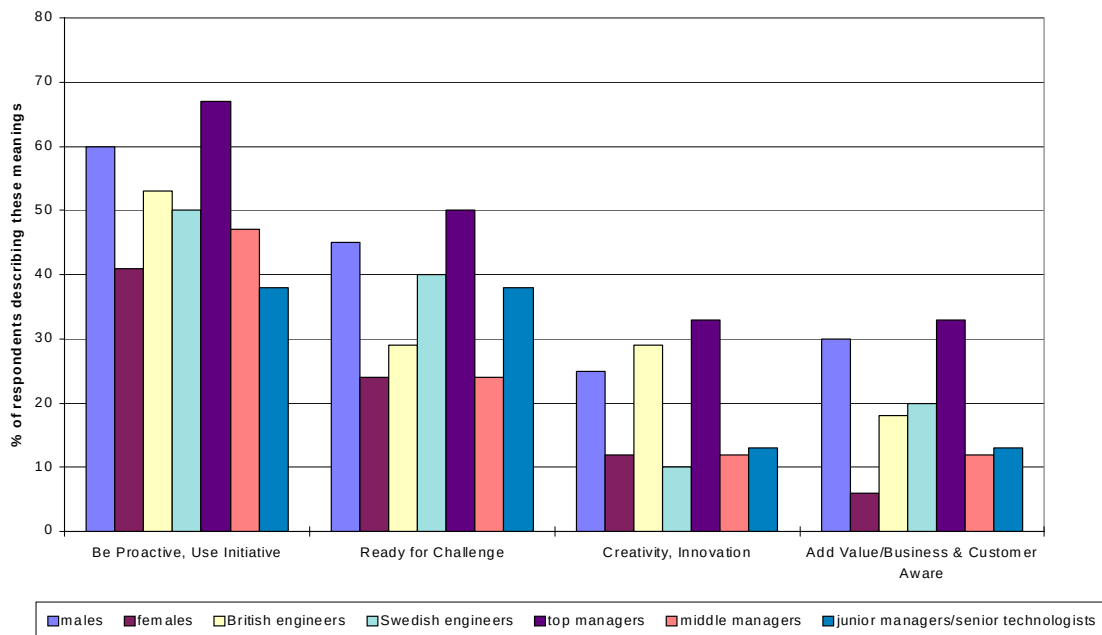


**Figure 5.4 Top Managers Meanings of Commitment**

“Not coming in and doing my job as I can do it with the resources I already have in front of me, but making sure that I am tapping into the resource system that exists in a much broader field.” (*UK female director*)

“Commitment in the job is, you’ve got plans, you’ve got to achieve those, and to put the effort in, and to push people, to actually get those plans achieved on time ...it’s actually being very enthusiastic and wanting to actually improve things, and make steps forward for the company, both personally and in the technical sense as well.” (*British female middle manager*)

“It’s a bit more than just plodding on and following instructions. It’s using the initiative, to really understand what the problem is, and coming out with a proper answer, rather than just one which fits the time-scale and one that is the way we did it before. .... I think it’s an attitude to not just accept what has been done before, it’s an attitude to think, well, first of all, is this the right way to do it. The action part is usually being proactive.” (*British male senior technologist*)

The level of effort in these meanings seems to be considerably more than the effort element of Mowday et al’s (1979) operationalisation of commitment.

### 5.5.3 Ready for Challenge

Figure 5.4 shows that almost half the men (45%) but only a quarter of the women mentioned being prepared to take on challenge as a part of the meaning of commitment. Of junior managers, 38% mentioned this, which may mean that they recognise the significance of taking on challenges and growing their competence to the benefit of themselves and their employer.

“it's being willing to take on challenges” (*Swedish male Vice President*)

“commitment means you take on challenges, learn from mistakes”, (*Swedish male Chief Engineer*)

“I actively seek challenges, because that is the only way to learn. Sometimes it is a bit scary when you want to do this leader role in the group, but you have to do it to learn something new, so you throw yourself into that.....Perhaps sometimes you just try to see what happens, but as you get more experience, you get more and more comfortable with new challenges, you know what you can do.” (*Swedish male team leader*)

Sometimes women were seen to be less committed to taking on challenge. However, some successful women felt that these were unfounded assumptions made by men based on gender roles, and that women had to demonstrate their commitment to such opportunities forcefully.

“To me, they seem to need more of a group acceptance, very often the group of other women, acceptance to do something new. I think it is a bit of not being intimidated by the fact that they might fail or stick out.” (*Swedish male middle manager*)

“it's taking the chance to have responsibility”. (*Swedish female project leader*)

“It will often be assumed that you're more interested in your home life and that your job will come second, and that you won't travel. .... You have to forcibly say, I want to do this, and I would do that. You have to make it clear, or otherwise they'll work on the assumption that you're stuck where you are.” (*British female middle manager*)

More Swedes (40%) mentioned challenge than British engineers (29%), as did half of all the senior managers, including four of the five Swedish male top managers. This higher level of preparedness to take on personal risk may reflect Sweden's slightly lower uncertainty avoidance ranking (Hofstede, 1984). Learning by challenge is seen as a key feature of high-flyer development in Sweden (Holt Larsen, 1996), and 56% of Swedish companies have high-flyer policies, compared to 45% of British companies, according to the Cranfield Network on European HRM (Crane-E) Survey 1995. Brewster, Lundmark and Holden (1993: p.77) reported that there had been a drive for Swedish high tech engineering managers to develop leadership “by creating visions, accepting challenges and risk-taking”.

Additionally, the Swedish companies' flatter structure may have meant that more engineers see frequent opportunities for challenge, compared to engineers in the more hierarchical and hence narrower structure in the British company, although all three companies have a project management system which offers opportunity for challenge at different levels. The British company's corporate values' statement (Appendix 7.1B), given to every employee, has “have the will to take rational risks” in third place, so it clearly is a very desirable feature of commitment for the British organisation as well.

#### 5.5.4 Creativity and Innovation

Whilst 25% of male engineers talked about a desirable commitment meaning as the commitment to be creative and innovative, Figure 5.4 shows that very few women mentioned this. Of British engineers, 29% cited this meaning, compared with only 10% of Swedes. Whilst only just over a tenth of middle and junior managers respectively talked of creativity and innovation, 33% of senior managers mentioned those meanings when describing commitment without prompting.

“Commitment to my team is very strong. That is the basic element of the work, to provide the best possible atmosphere. It is a resource for creation.”  
(*Swedish male middle manager*)

“To have the creativity and the courage of that creativity, you’ve got to have some commitment as to why you are doing it. If you haven’t got that, why bother? Don’t you think engineering is a bit like that as a profession? It’s complicated. There isn’t always a solution. There’s lots of laws and rules and things, but the sum total of it is not easily prescribed. And two, three engineers may have completely different ideas on how you do something. They may both be right, by the way. There are many solutions. But you have to have that commitment to actually go out and try it your way.” (*British male senior manager*)

“Some people maybe are creative within themselves, but I think you are more creative if you are creative with others” (*Swedish female middle manager*)

Where the Swedes do talk about creativity and innovation, it is usually within a team environment, in alignment with Sweden’s more community-oriented work culture. However, the British engineers were talking about individual creativity and ideas, which could be a reflection of their more inner-directedness than their Swedish counterparts. The Swedes have survived in this US and UK-dominated industry for many years. This may be assisted by the Swedish corporate culture being more outer-directed, and thus “able to form a nurturant relationship with external niches and conditions” (Trompenaars & Hampden-Turner, 1997:p.148), rather than being individually creative.

Commitment to being innovative and creative is a desirable attitude according to these top managers. However, Dougherty (1996) said that commitment to innovation from the organisational viewpoint was full of tension between giving freedom and responsibility to the individuals. Kunda (1992) had also commented on this tension in his ethnographic study of culture in an engineering company. Dougherty reported that several surveys in large complex organisations had found that most innovators felt their senior managers were not committed to innovation. The evidence from this present study indicates the opposite – top managers were using this kind of commitment as a criterion for advancement for their middle and junior managers.



### 5.5.5 Add Value/Business/Customer Awareness

Figure 5.4 shows that commitment may be related to a growing need for business awareness, especially customer relationships, in high tech engineering. A third of senior managers mentioned this, compared with only a tenth of their subordinate managers and top technologists. The most noticeable difference is that most of the women did not state this as part of commitment, only three mentioning it unprompted.

*Commitment is* “that you’re giving satisfactory, or more than satisfactory answers to your own internal customers .... you should give just enough information in just the right amount of time and no more, as if you are doing more than that, although it is commendable and laudable, it is also spending the company’s money and time, that they don’t actually want.” (*British male senior technologist*)

“It’s being able to think about the needs of the company, you know, testing time is very expensive and any delays obviously cost money, but can have a knock-on effect in terms of getting products out of the door, which again brings money into the company” (*British female middle manager*)

“It’s excellence in the context of doing what the customer wants, on time and at cost, so it’s not excellence for the sake of it, and it’s not excellence in a gold-plated sense. But it’s doing things properly and doing them right.” (*British male senior manager*)

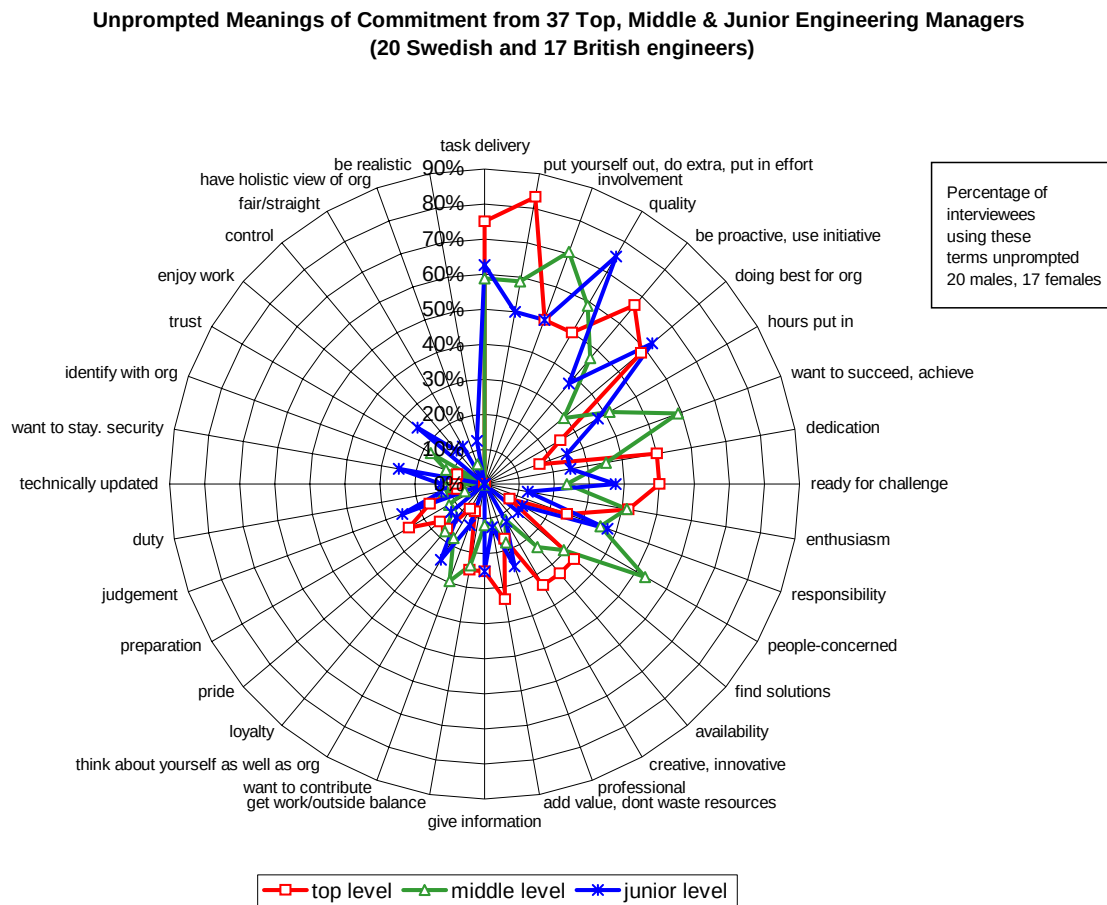
“I have been here for 12 years .... but times are harder, and you have to think of the business, the business is more there now.” (*Swedish female middle manager*)

“Well, it’s really no reason to deliver more, if it takes you more time and so on. ... Of course it is a business reason. But it also takes time to use the information, interpret the information. If you have got more information, you have got more things. Keep it to the right level, but that is not very easy.” (*Swedish male senior manager*)

“I guess the commitment is dependent on the individual. Two persons would form the job in a different way. And also create involvement from the person itself and the people in the surroundings, the customers whoever they work with would be affected by the involvement of that specific person.” (*Swedish male middle manager*)

Swedish engineers (20%) mentioned business awareness marginally more than the British (18%) in the unprompted part of the interviews. The British company’s values statement had “Be customer focused” at the top of its values list, and “Customer focus” was part of the appraisal form in one of the Swedish organisations, but not the other. However, responses from the second Swedish organisation indicated that there was a recent push towards customer focus and business awareness, and Söderström (1993) mentions this shift in market orientation across the industrial scene in Sweden.

**Figure 5.5 Meanings of Commitment – Top, Middle and Junior Managers' Views**



### 5.5.6 Differences in Top, Middle and Junior Managers' Meanings

The previous section has focused on the four meanings (being proactive/showing initiative; ready for challenge; creativity/innovation and add value/business/customer awareness, which top managers as a group indicated more than any other group in the sample (ie males, females, British and Swedes). Figure 5.5 allows a wider pattern to be viewed, across all the mentioned components of commitment, and focused just on managerial level differences. The results are then slightly different from the results shown in Figure 5.4, in that it now becomes clear that top managers' most frequent meaning was putting yourself out, closely followed by task delivery. As well as the four meanings referred to above, dedication was another frequent meaning for this group, with a similar percentage to the British managers as a group giving this meaning. Availability and finding solutions also were mentioned more by top managers than those at lower levels.

## 5.6 GENDER DIFFERENCES IN MEANINGS OF COMMITMENT

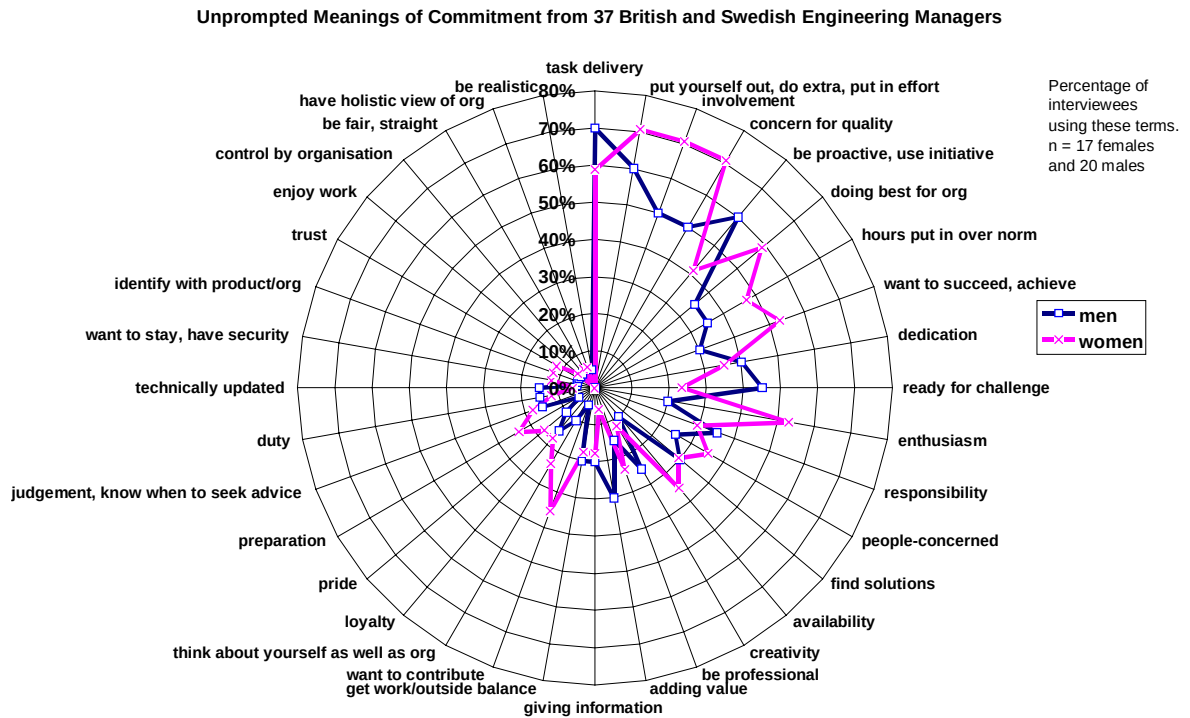


**Figure 5.6 The Male and Female Overall Responses**

Figure 5.6 indicates the percentages of male and female managers mentioning the whole range of 36 components of commitment, as they viewed the construct. It can be seen from the spokes where there is a higher percentage of female managers mentioning the construct than male managers. In particular, note the difference on putting yourself out, involvement, quality, doing your best, hours over the norm, wanting to succeed and enthusiasm.

These findings need to be contrasted with the previous findings of managerial level differences, but first, there is a breakdown of the spokes into groups of males and females in each of the three companies, which will highlight gender, organisational and national differences on some of the variables. This is discussed in the next Section (Section 5.7).

**Unprompted Meanings of Commitment in Three Engineering Companies  
(percentage responding with meaning, n=37 engineers)**

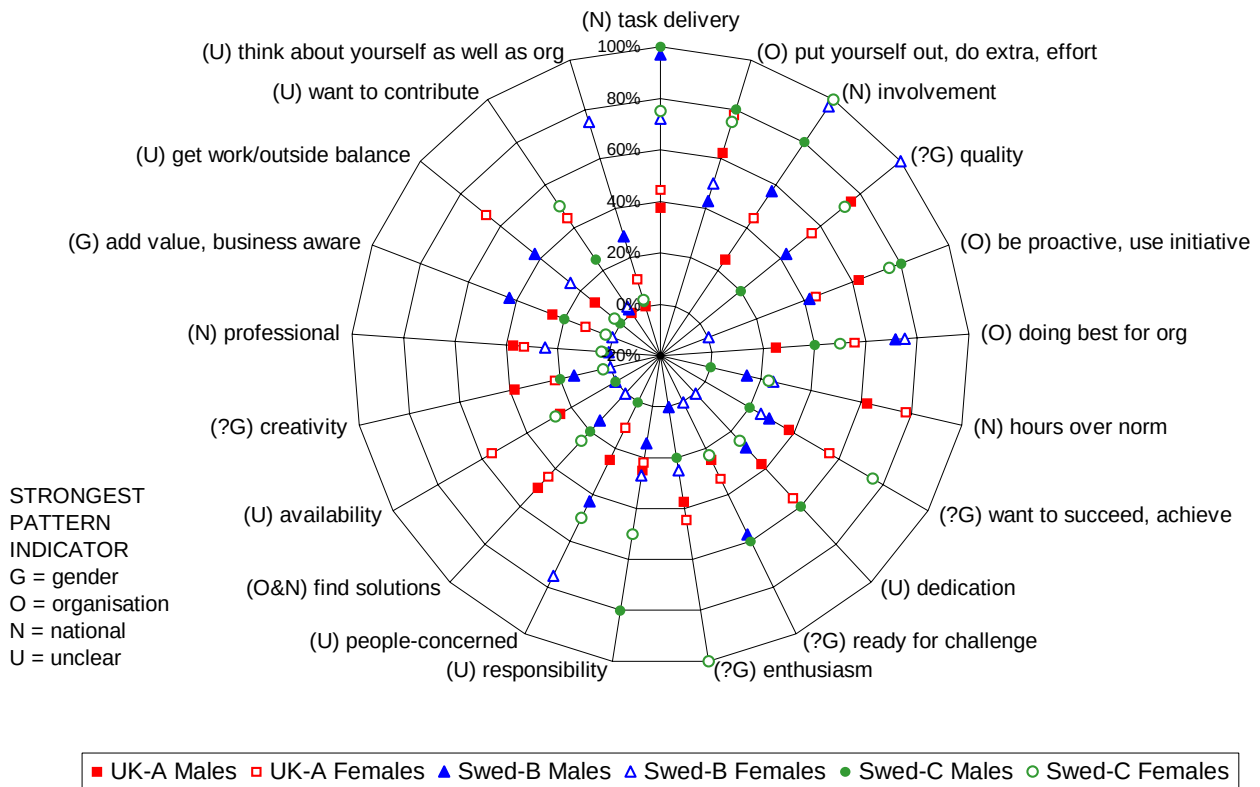


**Figure 5.7 Gender, Organisational and National Differences in Responses on Meanings of Commitment**

## 5.7 AN OVERVIEW OF DIFFERENCES IN MEANINGS OF COMMITMENT (Gender, Organisational and National Differences)

Figure 5.5 indicated the differences from managerial levels, and Figure 5.6 showed the spidergram plot for gender differences. However, underneath these differences, there may be some revealing patterns which reflect other influences, such as organisational and national cultures. Figure 5.7 explores this. The following results should be treated as indicators, not as significant findings, as the sample is small when broken down into the three organisations, but the patterns are of interest in setting the other results in context.

Figure 5.7 shows the unprompted descriptors for “commitment” elicited from male and female interviewees in the three companies, as spokes on the spidergram, omitting some of the less-mentioned meanings to simplify the figure. The spoke for add value/business awareness indicates that more of the males than the females in all three companies mentioned this meaning. On some spokes, the marker patterns show company pairs of male and female responses, for example, on being proactive/using initiative, finding solutions, doing your best for the organisation, and putting yourself out. Several responses indicate a national pattern. For example, responses from Swedes are furthest out on the spokes for task delivery and involvement, and from the British on hours over the norm, and being professional, indicating national explanations. Other patterns are less clear, but in many cases, there are strong gender differences in two of the three companies, for example on quality, wanting to succeed, and wanting to contribute.

The spoke for commitment as hours over the norm shows strong national differences, more of the British males and females mentioning this than their Swedish counterparts. Two-thirds of UK engineers gave this meaning, compared to only 16% of the Swedish interviewees. About 40% of middle and lower managers also gave this response. The work patterns in the UK with the longest average working hours per week in Europe (Brewster et al, 1996) are likely to have influenced this response. Swedish engineers would largely be unwilling to work long hours over the normal working week other than when absolutely necessary, according to Lawrence & Spybey (1986). British women with young children felt that commitment should not be measured by hours over the norm.

“A lot of people look upon commitment as a willingness to put in all sorts of hours. I think there is an element of that, but that's not the whole story. It's dedication, if you're only available during eight hours of the day, dedication during those eight hours is just as much commitment as someone who stays there till midnight.” (*UK female senior technologist*)

“I think that commitment is measured here by the hours you put in, at your desk, that sort of thing, and I don't think that is a real measure of commitment, it is people's perceptions of your commitment. It's quite different.” (*UK female middle manager*)

However, British male managers were quite clear that there was an expectation of additional hours from the professional engineers. This contrasts with the first female's statement above.

"I think, if there were engineering graduates who appeared not to be willing to work more than 37 hours a week, there wouldn't be any doubt that they would be considered to have low commitment. Irrespective of whether they were in the bands that are paid for overtime or not. ... But either in the ranks where overtime is paid or in the higher ranks where it isn't paid, there is still an expectation in the company that commitment means longer hours than the contractual minimum. There are plenty of people who would like to say that is not true, you know, "we are completely performance paid, and as long as you get the results in your job, it doesn't matter" etc. But I don't really believe that is true. People in the organisation do notice the hours that others do." (*UK male middle manager*)

## **5.8 DISCUSSION OF FINDINGS**

### **5.8.1 Differences from Expected Meanings based on Literature**

There is some evidence from these results that the meaning of commitment held by managers in engineering in Britain and Sweden is not in line with commitment as defined in the management literature. The “desire to stay in the company” component of the “continuance commitment” element operationalised as one of the two key aspects of commitment by management researchers previously (following Mowday et al, 1982) seems no longer to be an important aspect of commitment for engineering management in the global workplace of the nineties.

Other than the lesser importance of the desire to stay in the company element of continuance commitment, the responses as a set were close to Morrow's definition of work commitment, except for a second notable feature: the emphasis on personal balance, as an integral part of commitment at work. This may reflect the “career anchors” (Schein, 1990) of the sample, discussed in detail in Chapter Six, and the dual career couple status of most of the sample. Also the meanings of thinking of oneself and enjoying work are related to the personal balance issue. The other meaning which did not fit was having concern for people, a meaning which may have become more relevant in times of organisational downsizing and economic restructuring. These differences will be addressed again in Chapter Eight, where the fit with the literature meanings will be summarised.

### **5.8.2 British and Swedish Sample Differences in Meanings of Commitment**

Whilst there were similarities (on commitment meaning quality, being proactive, and business awareness), there were some interesting differences. It might be expected that Swedes would respond significantly more with involvement, but surprising that there should be such a difference on commitment meaning task delivery, mentioned by more than twice as many Swedes. With the longstanding British reputation for innovation, it could be expected that the British would talk more than Swedes about creativity and innovation, and they did in this study.

However, Brewster, Lundmark & Holden (1993) found that more British managers than Swedes consider good managers to be those who create order and structure, so these higher creativity/innovation responses from the British engineers stand in contrast to what might have been expected from that study in meanings of commitment. The Swedes mentioned challenge more than the British, despite the British company including “have the will to take rational risk” in their corporate values statement. Top Swedish managers stressed the importance of taking on challenge for younger engineers, to grow, and to get a broader portfolio of experiences. There were interesting results on putting

yourself out, which revealed that considerably more British women, and married respondents across the sample, gave this meaning. Language and vocabulary may have limited some of the Swedish responses, but it can be seen from the quotations that a high standard of English was the norm for the Swedish engineers in the sample. Overall, the emphasis of the meanings of commitment from senior managers across both countries indicates a shift towards a very active, career-development oriented, mutually beneficial kind of commitment at work. The high performance, high commitment HRM model is much in evidence from the responses given (Singh & Vinnicombe, 1999).

### **5.8.3 Managerial Level and Gender Differences in Meanings of Commitment**

These results indicate that managerial level and gender have an effect on the meaning of commitment, as well as organisational and national work culture. There are some differences between men and women engineers' unprompted meanings of commitment, which become more significant when the responses from top, middle and junior management levels are taken into account. The senior managers' responses are closely aligned to those from the overall set of male engineers, whereas the set of women engineers' responses are closer to those of the average set of the junior managers/senior technologists rather than managers, despite the women being broadly matched in levels and age to the men, at least in the middle and junior manager categories. It should be noted, however, that there were only four females out of twelve engineers in the top category, and so that is likely to have biased the top managers' set of meanings in favour of male responses.

Figure 5.8 merges the two earlier figures showing managerial level differences and gender differences in the number of people talking unprompted of these meanings. The order of the variables, previously in frequency of people mentioning them, has been rearranged as a support for the development of the matrix in Figure 5.9.

### **5.8.4 The High-Low Visibility/Individual-Organisational Orientation Matrix**

The meanings mentioned more by males (such as task delivery and being business aware) seemed to be very active in a way which would be more visible to the manager, in contrast to many of the females' meanings such as quality, involvement and wanting to succeed. The gender-different meanings were therefore sorted as far as possible on higher and lower visibility to managers. These meanings were then re-examined, and the orientation of the commitment suggested another axis of collective  $\leftrightarrow$  individual, which was then changed to organisational  $\leftrightarrow$  individual. This axis is based on whether the commitment benefits the organisation or the individual more. Whilst the "individual" label appears as the extreme of the dimension when mapped, in fact it is individual and



organisational and not at the extreme, simply more individual than the other organisationally focused commitment meaning.

Hence, using axes of individual/organisational orientation and higher/lower visibility, Figure 5.9 shows meanings indicating pink for meanings given more by women, and blue for meanings given more by men. Many females' responses fell into a less visible category (the "Virtuous"), aimed at the collective good of the organisation, including involvement, quality and wanting to contribute. Also mentioned more overall by women, but particularly top women and top men is a group of meanings (the "Volunteers"), related to high levels of organisational citizenship behaviour (OCB). OCB is defined as "constructive or cooperative gestures that are neither mandatory in-role behaviors, nor directly or contractually compensated by formal reward systems" (Organ, 1990). The "Volunteer" meanings would be more visible to managers than the "Virtuous" meanings.

Top women managers responded more than other women and men with a group of meanings (the "Virtuosos"), citing personal ambition meanings which would enhance the individual's career (keeping an eye on their own marketability, and on their work/life balance) but which were not as visible as the fourth group of meanings. Those meanings (the "Vanguard" meanings in Figure 5.9), given more overall by males and top females than by other females, relate to much more active meanings, very visible to managers. Engineers who enact these meanings would enhance personal competence and career development through seeking challenging assignments, finding solutions, innovation, creativity and business awareness. These are important attributes for engineering organisations to encourage, to nurture innovation to develop new technologies and products (Quinn, 1985).

Figure 5.9 also indicates where males and females share the meanings, including getting balance and enjoying work, which will feature in Chapter Six when the relative importance of each of the meanings has been rated by the respondent.

**Figure 5.8: Combining charts and rearranging the variables order of Figures 5.5 and 5.6 – Top, middle and junior managers meanings of commitment with male and female meanings.**

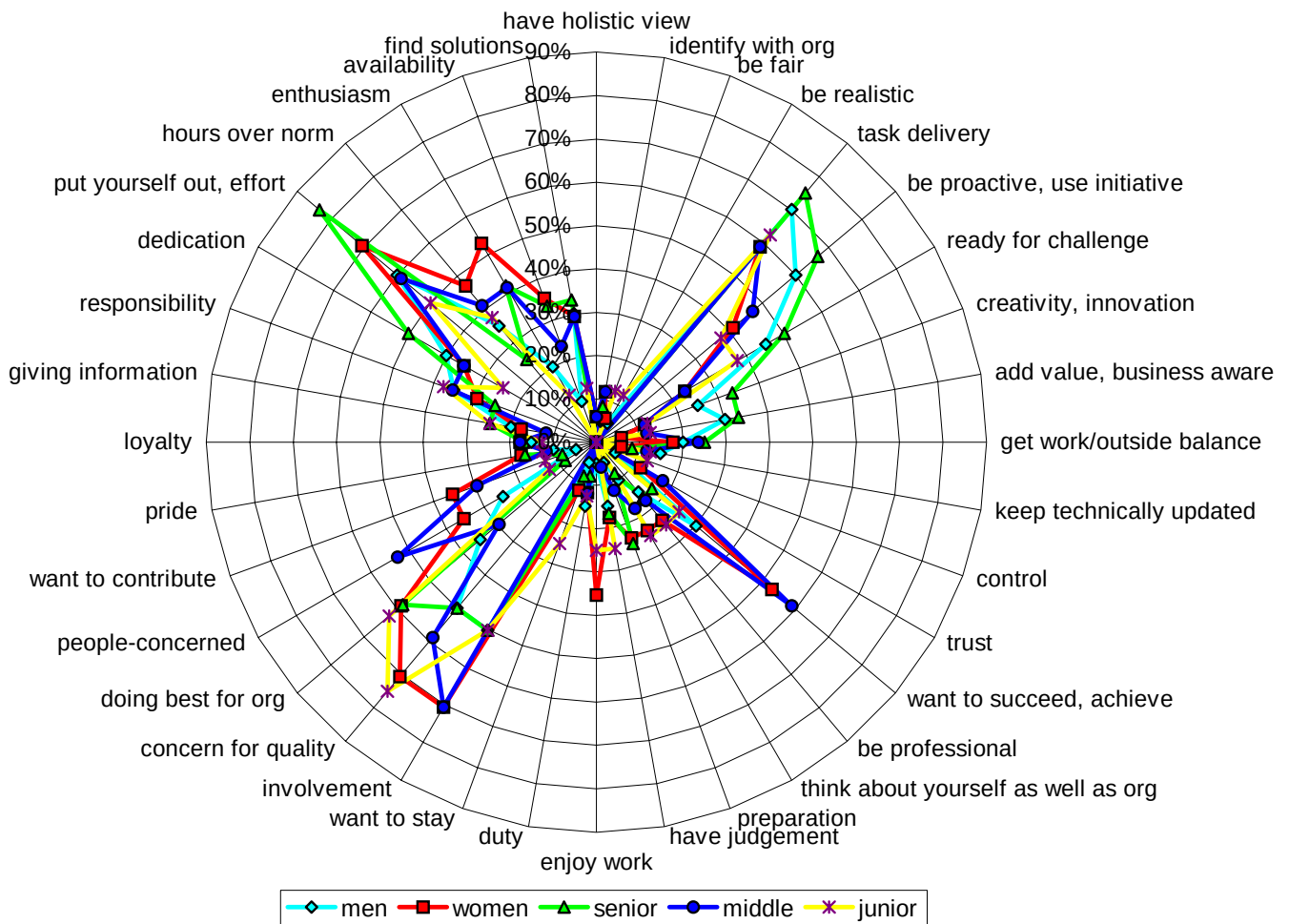
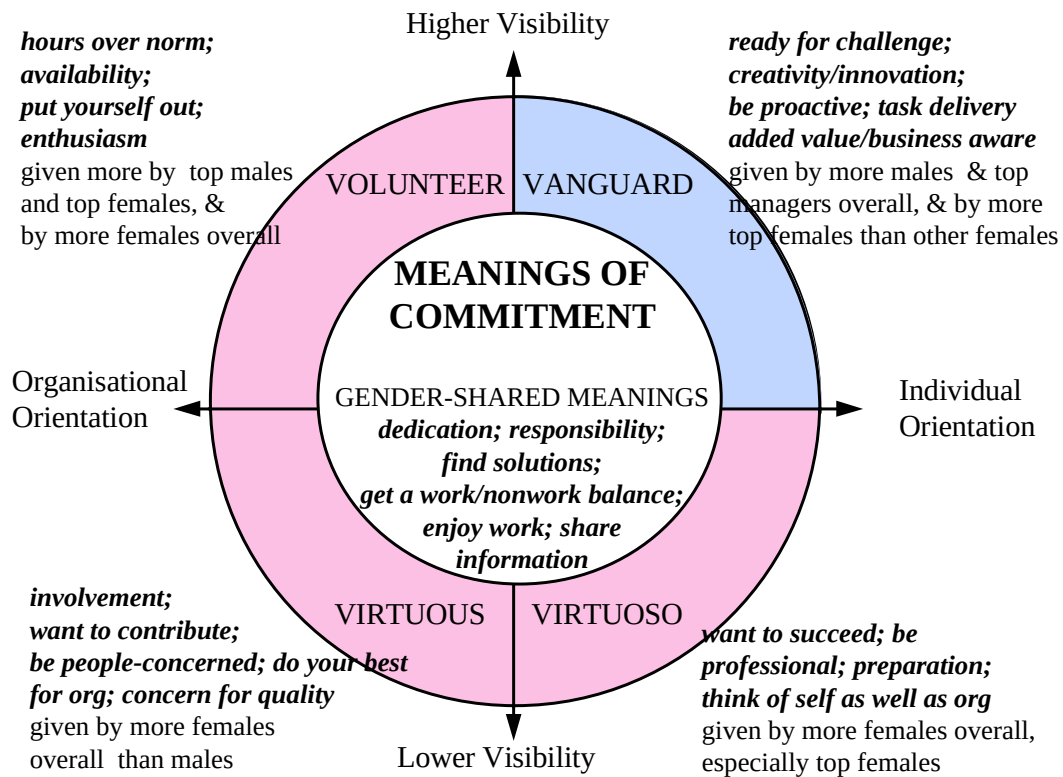


Figure 5.9 Gender, Visibility and Orientation of Commitment



## **5.9 CONCLUSION TO CHAPTER FIVE**

This chapter has identified 36 in-vivo variables as component parts of commitment, the evidence of commitment, according to the 35 engineering managers in the sample, plus the two additional Swedish senior managers.

Some key features emerge from this evidence:

### **5.9.1 Evidence for Changing Nature of Component Parts of the Construct of Commitment.**

- \* There is a general lack of responses indicating a currently used meaning of Continuance Commitment, defined in the literature as a desire to stay in the company. There is much more emphasis on very active meanings rather than passive affiliation with the company.
- \* The findings indicate that Morrow's (1993) conceptualisation of work commitment was the closest to the meanings expressed in this study, as career commitment, normative commitment and involvement were present in these responses, as well as affective and continuance commitment.

### **5.9.2 Managerial Level differences in Meanings**

- \* The focus of top managers on different evidence (being proactive, ready for challenge, creative and added value aware) from middle and junior managers may indicate the shift from the job-for-life employment pattern to a high performance/high commitment model with less security but higher employability.

### **5.9.3 British/Swedish differences in Meanings**

- \* There were a much larger number of responses on "task delivery" and "involvement" from Swedish engineers, compared to the British.
- \* There was a noticeable emphasis by Swedish top managers on "challenge".
- \* However, it is acknowledged that the sample is too small to claim proven national or cultural differences, and hence these are indicators rather than generalisable features.

### **5.9.4 Emphasis on getting a Work/NonWork Balance**

- \* Although interviewees talked about the evidence from senior role models of commitment in their organisations, reservations were often made about whether such commitment would be emulated by the subjects, a number of whom were concerned about establishing or maintaining a balance in their lives at work and outside work.
- \* As it became clear that balance was a factor of interest for a number of the interviewees, it was decided to ask them all to complete a career anchor inventory after the interview, and this will be reported later in Chapter Six.

### 5.9.5 Gender, Visibility and Orientation of Commitment

- \* A key outcome of this chapter is the identification of the four types of commitment behaviours, the volunteers, the virtuous, the virtuosos and the vanguard, which are differentiated by gender and managerial level. There is a fifth group of meanings which are shared by males and females, including getting a balance, and enjoying work, which feature in detail in Chapter Six. The vanguard meanings are those desired by the senior males, and recognised as desirable by more males overall than females. The top women responded in a similar way to the top men. This could be as a result of their pioneer status (Kanter, 1977), compared to the middle and junior women who have had a larger (albeit still incredibly small) peer group. However, the three top UK-A women did not have children, and hence would have had different work/nonwork balance to the women engineer mothers of young children. Note that this does not imply that they had fewer external responsibilities, as some of these senior women had visiting professorships and other professional positions which were very demanding (See Figures 5.8 and 5.9)
- \* There may be an element of males using better impression management techniques than the females. Newell & Dopson (1996) had commented on the importance of being visibly committed to improve career chances. Similarly, Liff & Ward (1998) found that women managers identified the need for visibility and to engage in more networking. Impression management “is the process whereby people seek to control the image others have of them” (Rosenfeldt, Giacalone & Riordan, 1995: p.4). more evidence of this will be presented and discussed in Chapter Seven.

### 5.9.6 Issues of Bias and Limitations

- \* Interviewees were asked to describe non-committed individuals, to ensure that their meanings of commitment were in alignment with high-commitment descriptions. There was no evidence of any discrepancy on this factor. However, it was clear that the sample felt that few low-committed people would get as far as the top of the technologists scale, and that at the top level, everyone was showing high commitment.
- \* As so many meanings of commitment emerged, it was difficult to put relative values on these, from the interview data. Interviewees were therefore sent a rating form after the interviews, several months later. It is recognised that the interviews will have raised their awareness of this somewhat intangible subject, and so their responses may be more informed and considered by the debate than others who have not been interviewed. The ratings will be discussed in Chapter Six.
- \* The size of the sample is small, and hence the results, despite the matched male/female pairs, should be interpreted with some caution when considering even theoretical generalisability (Yin, 1994), as in any exploratory study.

Nonetheless, the findings summarised above are of real interest, and will be developed in later chapters.

#### **5.9.7 Moving on to Chapter Six**

Chapter Six deals with the Terms of Commitment. As this thesis is concerned with establishing whether there are gender differences, which might help to explain why women managers are perceived to be less committed, gender is the most important of the three horizontal themes running through the next two chapters, although managerial level and British/Swedish differences are also considered. The meanings elicited in Chapter Five were rated by the interviewees some months after the meetings, and some of the variables became of additional interest as they formed part of the commitment aspects of the respondents' psychological contract. The meanings become the evidence for those signalling and assessing commitment, and that is discussed in Chapter Seven.

Before that, Chapter Six considers the **social context** of the meanings which influences the commitment behaviour. This context includes individuals, their organisation and their outside work life. Chapter Six explores how the meanings of commitment relate to the terms of commitment, how there are tensions between individuals and their organisations over certain meanings, such as hours over the norm, and getting a work/life balance, and how individuals negotiate or accept those terms within their organisations. The reason for this next chapter is so that an understanding can be gained as to how these managers dealt with their own commitment relationship with their organisations, before consideration is given to what they said about assessing commitment of others.

## CHAPTER SIX: TERMS OF COMMITMENT

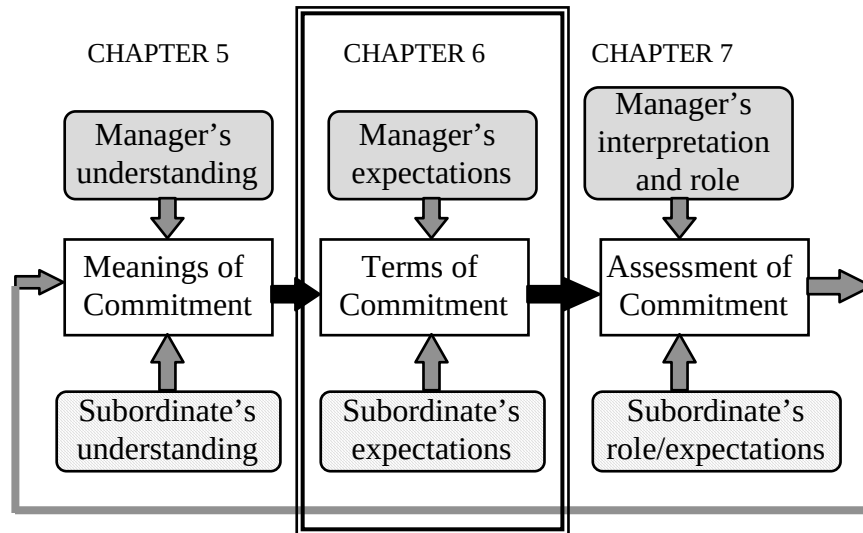


Figure 6: Chapter Six Findings Map

## 6.1 INTRODUCTION TO CHAPTER SIX

As this thesis is concerned with engineering managers' meanings of commitment, the definition of meaning given in Chapter One should be revisited. Meaning is defined as:

"the comprehension of social actors, (their beliefs, motives, purposes, reasons in a social context), which at one and the same time automatically constitute an explanation of their actions and of the social occurrences to which these give rise" (Jary & Jary, 1991, p387)

The social context here is the terms of commitment, part of **the psychological contract** between employee and organisation, of which commitment may be seen as the binding agent. Using Rousseau's one sided perspective of the psychological contract, it can be defined as

"individual beliefs, shaped by the organisation, regarding terms of an exchange agreement between individuals and their organisation" (Rousseau, 1995, p.9).

The acceptance, negotiation and delivery of the terms, together with the assessment of the resultant committed behaviour, form the explanation and justification for the individual's meaning of commitment as manager and as employee, closing the loop shown in Figure 3.2.

Figure 6 maps the position of this chapter relative to other findings. Gender is the important horizontal strand through this chapter, although in the first half, managerial level is also a significant factor. In some sections, British and

Swedish responses are compared, to contrast the differences for males and females in countries with very different levels of organisational and state support for working parents. As so many meanings of commitment were given by the respondents as evidence of commitment, it was difficult to ascertain their relative importance from the interview data without imposing researcher bias. To enhance the reliability of the elicited meanings, a bilingual questionnaire was sent several months after the interviews which asked the engineers to rate the importance to them personally of the 36 meanings of commitment given in the interviews.

Section 6.2 examines the results of the postal questionnaire. Subjects were also asked to give a rating as to how they perceived their organisation would value these meanings as part of commitment. Tensions in the meanings between own and perceived organisational ratings are identified, and will be put into context later in the chapter. In particular, these were on hours over the norm, which had a higher perceived value for the organisation, and getting a balanced life, enjoying work, and thinking of oneself as well as the organisation, which were rated higher by individuals for their own meaning.

Section 6.3 of this chapter considers the career anchors of the individual engineers, because it became clear in early interviews that many of them were talking about commitment and balance. Accordingly, they were asked to send in a career anchor inventory after the interviews. In Section 6.4, Schein's career anchor driver model is used to highlight the motivations of the engineers regarding their psychological contract with the employer. Again, the issue of achieving work/life balance arises.

Section 6.5 returns to the tensions identified in Section 6.2, particularly on commitment meaning hours over the norm, and getting balance in work/outside work lives. It takes a closer look at these engineers' views of work/nonwork issues, the personal individual context in which the commitment exchange takes place. The strategies which these engineers used to manage their own work/nonwork boundaries to maintain balance are mapped. Managers assessing commitment are likely to expect subordinates to have similar coping strategies to manage their commitment at work, whatever their family circumstances, and may take their own case as a measure of what is reasonable. From this section's findings, an indication of these managers' expectations of performance in line with the terms of their subordinates' commitment relationship or contract may be derived.

In Section 6.6, the chapter concludes with a review of the evidence presented on the terms and commitment aspects of the psychological contract, and a model is drawn of the processes involved.



## 6.2 RATING OF OWN AND PERCEIVED ORGANISATIONAL MEANINGS OF COMMITMENT

### 6.2.1 The Rating Form

As reported in Chapter Five, a wide range of meanings were elicited from the respondents, through descriptions of evidence of high commitment in senior engineers. Therefore it was decided to ask the engineers if they would rate the meanings, collapsed into 36 variables, on a scale of 1 to 7 (1 = not important) in terms of the importance of each meaning to their personal conception of commitment, and to their view as to how their organisation would rate that meaning. The accompanying letter (in either English or Swedish) emphasised the need to rate each concept in terms of relationship to the meaning of commitment and not as a concept in its own right. To reinforce this message, a note to this effect was included at the top of the form. The form was dual language, so that the Swedes could see the English words and make their decisions in either language. See Appendix 4.3 for a copy of the instrument. All the British engineers completed the form, as did all but two of the Swedish engineers (one who would not complete the career anchor form either, and one woman who had left without giving a forwarding address). The Swed-B vice-president of engineering who was briefly interviewed also completed a form, so there were 34 responses in all. See Table 6.1 for descriptive statistics and the working definitions of the concepts, as used by the respondents in the interviews. The biggest standard deviations were 2.1 on own rating of "getting a balance", 2.0 on own "think of self" as well as the organisation, and 2.0 on own "judgement" (having judgement, knowing when to seek advice). Looking at the pairs of rows for own and perceived organisational ratings, it can be seen that there are some pairs with rather differing values. These will be investigated in depth later in this chapter.

**Table 6.1 The Rated Meanings of Commitment**

| Importance of Component of commitment at work | Mean | Standard deviation | (Rated on scale 1 = not important, 7= very important to meaning of commitment)<br>Meaning as used by respondents                    |
|-----------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| own add value                                 | 5.1  | 1.7                | Own rating: Awareness of need to add value, customer & business orientation                                                         |
| org add value                                 | 5.1  | 1.4                | Perceived organisational rating of above                                                                                            |
| own availability                              | 4.8  | 1.3                | Own rating: to be available whenever needed, whether at weekends or during holidays                                                 |
| org availability                              | 5.7  | 1.2                |                                                                                                                                     |
| own proactive                                 | 5.7  | 1.3                | Own rating: to be proactive at everything, not waiting around to be asked to do the next task                                       |
| org proactive                                 | 5.4  | 1.1                |                                                                                                                                     |
| own realistic                                 | 4.5  | 1.8                | Own rating: to be realistic about what can be done, eg not accepting more tasks than can be delivered, and then failing to deliver. |
| Org realistic                                 | 4.6  | 1.4                |                                                                                                                                     |

| <b>Importance of Component of commitment at work</b> | <b>Mean</b> | <b>Standard deviation</b> | <b>(Rated on scale 1 = not important, 7= very important to meaning of commitment)<br/>Meaning as used by respondents</b>                                           |
|------------------------------------------------------|-------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| own control                                          | 3.3         | 1.4                       | Own rating: control by the organisation, to get the most out of people without an equal exchange of reward                                                         |
| org control                                          | 4.1         | 1.6                       |                                                                                                                                                                    |
| own creativity                                       | 4.9         | 1.6                       | Own rating: to be creative and innovative at work, eg not just accepting the way things are always done.                                                           |
| Org creativity                                       | 4.3         | 1.7                       |                                                                                                                                                                    |
| own dedication                                       | 6.0         | 1.0                       | Own rating: to be dedicated to the company                                                                                                                         |
| org dedication                                       | 5.8         | 1.1                       |                                                                                                                                                                    |
| own do best for org                                  | 5.9         | 1.1                       | Own rating: to do one's best for the company, even if this is difficult.                                                                                           |
| Org do best for org                                  | 6.4         | 0.9                       |                                                                                                                                                                    |
| own duty                                             | 4.5         | 1.8                       | Own rating: to do one's duty towards the organisation which provides employment                                                                                    |
| org duty                                             | 5.4         | 1.6                       |                                                                                                                                                                    |
| own enjoy work                                       | 5.5         | 1.6                       | Own rating: to enjoy work                                                                                                                                          |
| org enjoy work                                       | 3.2         | 1.5                       |                                                                                                                                                                    |
| own enthusiasm                                       | 5.7         | 1.1                       | Own rating: to be enthusiastic                                                                                                                                     |
| org enthusiasm                                       | 4.4         | 1.5                       |                                                                                                                                                                    |
| own be fair                                          | 5.0         | 1.7                       | Own rating: to be fair, especially when representing the organisation to those below                                                                               |
| org be fair                                          | 3.9         | 1.4                       |                                                                                                                                                                    |
| own find solutions                                   | 5.4         | 1.4                       | Own rating: to actively seek to solve problems, find solutions                                                                                                     |
| org find solutions                                   | 5.5         | 1.1                       |                                                                                                                                                                    |
| own get balance                                      | 4.8         | 2.1                       | Own rating: to get a balance in one's work and outside work life.                                                                                                  |
| Org get balance                                      | 2.9         | 1.5                       |                                                                                                                                                                    |
| own give info                                        | 4.7         | 1.9                       | Own rating: to give information freely both upwards and downwards to those who depend on it.                                                                       |
| Org give info                                        | 4.6         | 1.5                       |                                                                                                                                                                    |
| own holistic view                                    | 4.3         | 1.5                       | Own rating: to have an overview of the whole company's work                                                                                                        |
| org holistic view                                    | 4.2         | 1.3                       |                                                                                                                                                                    |
| own hours over norm                                  | 3.5         | 1.5                       | Own rating: to work additional hours (unpaid at managerial level) to the normal set hours, to deliver the goals, even if this causes problems for one's home life. |
| Org hours over norm                                  | 5.4         | 1.3                       |                                                                                                                                                                    |
| own identify w/co                                    | 4.9         | 1.6                       | Own rating: to personally feel part of the company, working towards the company's goals and feeling they are one's own goals                                       |
| org identify w/co                                    | 5.6         | 1.2                       |                                                                                                                                                                    |
| own involvement                                      | 5.8         | 0.9                       | Own rating: to be involved at work, both engaged with the company and with the work                                                                                |
| org involvement                                      | 5.8         | 1.2                       |                                                                                                                                                                    |
| own judgement                                        | 4.7         | 2.0                       | Own rating: to have judgement, to know when one needs to seek advice                                                                                               |
| org judgement                                        | 4.7         | 1.6                       |                                                                                                                                                                    |
| own loyalty                                          | 5.3         | 1.0                       | Own rating: to be loyal to the company                                                                                                                             |

| <b>Importance of Component of commitment at work</b> | <b>Mean</b> | <b>Standard deviation</b> | <b>(Rated on scale 1 = not important, 7= very important to meaning of commitment)<br/>Meaning as used by respondents</b> |
|------------------------------------------------------|-------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------|
| org loyalty                                          | 5.7         | 1.4                       |                                                                                                                          |
| own people-concern                                   | 4.8         | 1.9                       | Own rating: to have concern for people, not to see them just as a resource or means of delivering                        |
| org people concern                                   | 3.8         | 1.6                       |                                                                                                                          |
| own preparation                                      | 4.2         | 1.7                       | Own rating: to ensure that one is properly prepared, eg for meetings                                                     |
| org preparation                                      | 4.3         | 1.4                       |                                                                                                                          |
| own pride                                            | 4.9         | 1.7                       | Own rating: to take pride in one's membership of the company                                                             |
| org pride                                            | 4.1         | 1.6                       |                                                                                                                          |
| own professional                                     | 5.6         | 1.8                       | Own rating: to work according to the professional standards of engineers                                                 |
| org professional                                     | 5.4         | 1.3                       |                                                                                                                          |
| own put yourself out                                 | 5.7         | 1.2                       | Own rating: to put oneself out when necessary for the company, even if it causes problems for one's own personal life    |
| org put yourself out                                 | 5.8         | 1.4                       |                                                                                                                          |
| own quality                                          | 5.7         | 1.4                       | Own rating: to work to a high level of quality                                                                           |
| org quality                                          | 6.0         | 1.1                       |                                                                                                                          |
| own challenge                                        | 5.4         | 1.4                       | Own rating: to be ready to accept challenges, actively seek out challenge, & adopt challenging approach to work          |
| org challenge                                        | 5.1         | 1.6                       |                                                                                                                          |
| own responsibility                                   | 5.6         | 1.5                       | Own rating: to undertake the work with responsibility                                                                    |
| org responsibility                                   | 5.6         | 1.4                       |                                                                                                                          |
| own task delivery                                    | 5.4         | 1.6                       | Own rating: to deliver what was promised                                                                                 |
| org task delivery                                    | 5.6         | 1.5                       |                                                                                                                          |
| own tech update                                      | 4.4         | 1.9                       | Own rating: need to keep technically updated                                                                             |
| org tech update                                      | 4.4         | 1.4                       |                                                                                                                          |
| own think self                                       | 4.9         | 2.0                       | Own rating: thinking of oneself as well as the organisation, in order to contribute to the best of one's ability         |
| org think self                                       | 3.4         | 1.5                       |                                                                                                                          |
| own trust                                            | 5.4         | 1.5                       | Own rating: trust in the relationship between employee and employer                                                      |
| org trust                                            | 5.0         | 1.3                       |                                                                                                                          |
| own want contribute                                  | 5.9         | 1.1                       | Own rating: wish to contribute to good of the organisation                                                               |
| org want contribute                                  | 5.2         | 1.3                       |                                                                                                                          |
| own stay in org                                      | 4.1         | 1.8                       | Own rating: wish to stay in the org.                                                                                     |
| org stay in org                                      | 4.5         | 1.8                       |                                                                                                                          |
| own want succeed                                     | 5.9         | 1.3                       | Own rating: wanting to succeed, to achieve                                                                               |
| org want succeed                                     | 4.9         | 1.5                       |                                                                                                                          |

Whilst it is usual in studies of commitment to focus upon a narrow set of variables using the OCQ or similar instrument as a measure of commitment to seek causal relationships between antecedents and correlates of commitment, this research is trying to obtain evidence of what “commitment” means in the practitioner world. Hence it is considered illuminating to use this set of 36 variables elicited from the respondents, with the rating to determine the importance of the component parts of their meanings, as this could not be established from the interview data. Their perceived organisational ratings also indicated where there may be tensions in their psychological contracts.

### **6.2.2 The British Male and Female Ratings**

Figure 6.1 shows the ratings of importance to each meaning of commitment given by the male and female engineers in the British organisation. The thick line indicates their own ratings, and the thin lines, their perceptions of what would be the organisation’s ratings. Looking at the thick lines, there were some differing emphases by gender of importance around the concept circle, with scores over 6 out of 7 for pride, professionalism, wanting to contribute and wanting to succeed given by males, whilst scores over 6 for females were do best for the organisation, quality and want to succeed. Note that these reflect the gender differences found in the elicitation of meanings, that women’s commitment meanings were less visible but more organisationally focused than those of the men, as reported in Chapter Five. The thinner lines, representing the engineers’ views of their organisation’s ratings, show considerable differences in ratings, evidence of perceived difference between their own values and those of the organisation. The male patterns follow those of the females but are not so deep, for example on “get balance”, and “think of self as well as the organisation”. The gaps between the two sets of ratings will be examined below, as possible indicators of tension in the psychological contract.

Moving to Figure 6.2, the gaps between the two sets of ratings are mapped more clearly. The black circle around the zero line represents congruence of importance of meaning between individuals and their perceived organisational meaning (eg the mean of both ratings was 6.2).

**Figure 6.1 The Ratings of Importance of Commitment Meanings by British Male and Female Engineering Managers**

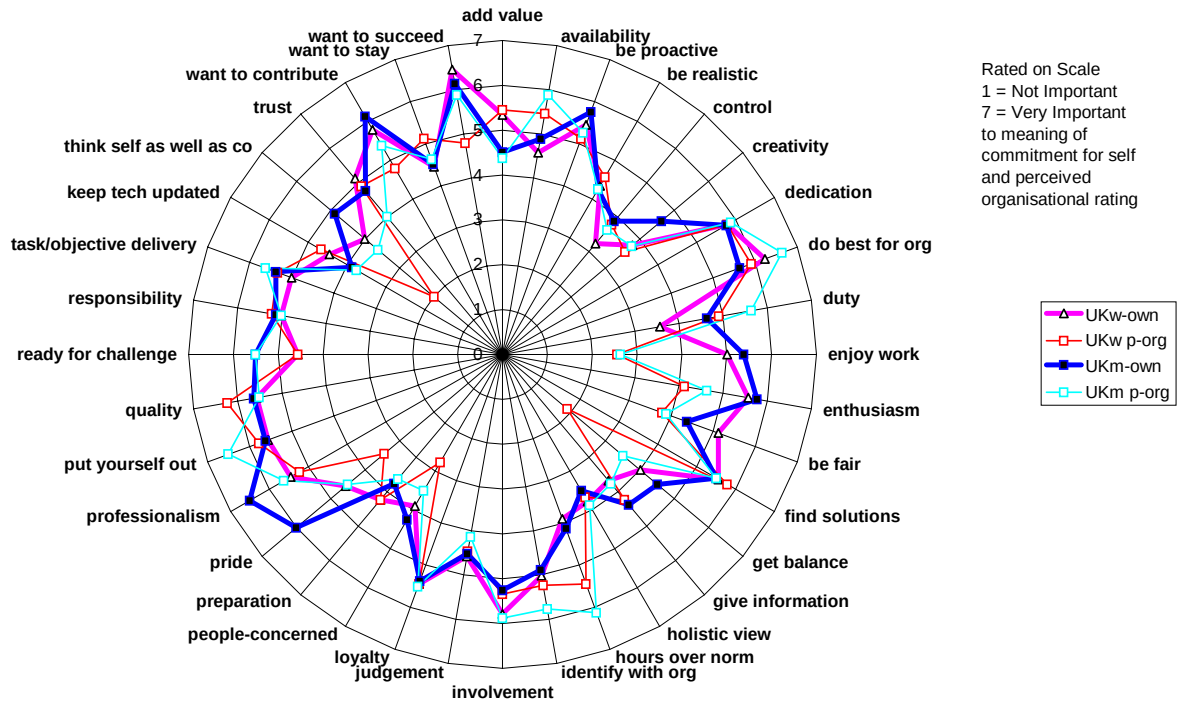


**Figure 6.2 Differences between Own and Perceived Organisational Ratings of Importance of Commitment Meanings, by British Male and Female Engineering Managers.**

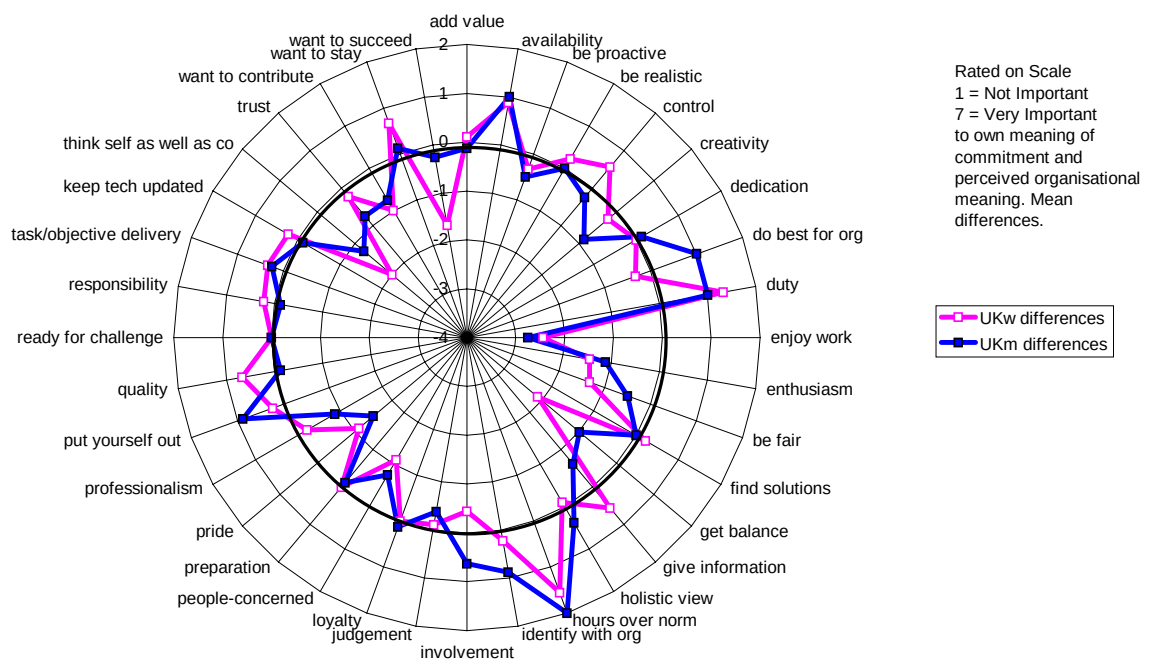
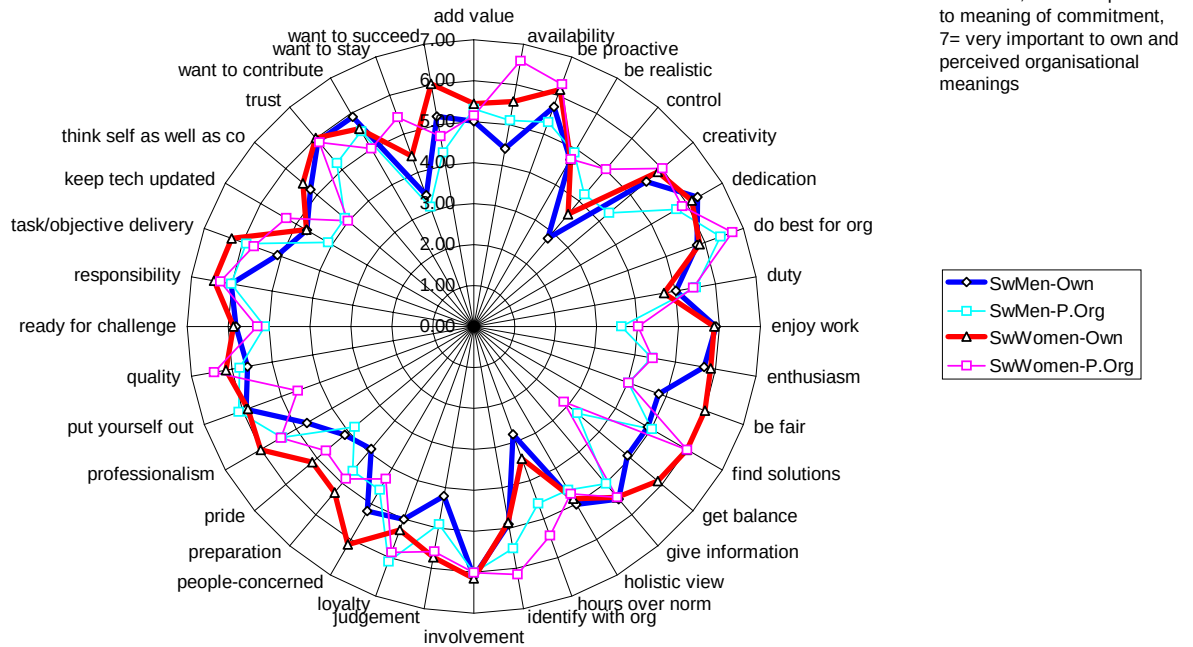
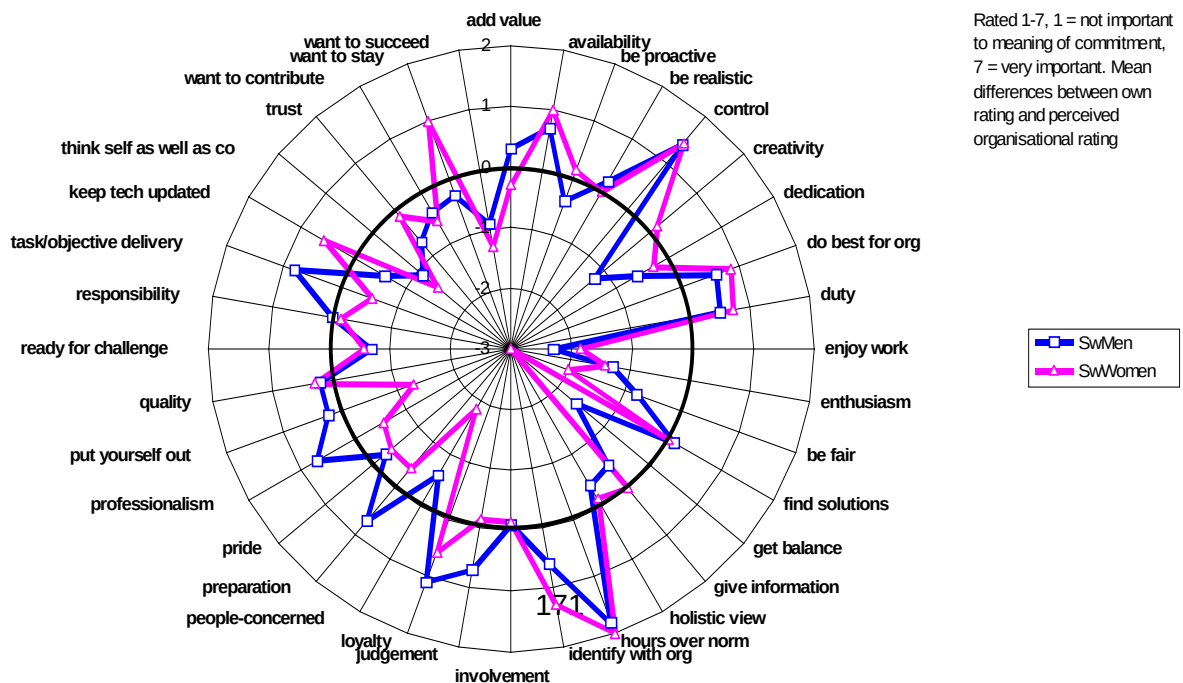


**Figure 6.3: The Ratings of Importance of Commitment Meanings by**

### Swedish Male and Female Engineering Managers

**Figure 6.4 The Differences between Own and Perceived Organisational Ratings of Importance of Commitment Meanings, by Swedish Male and Female Engineering Managers.**

The numbers on the radial axis represent the numerical difference of the mean scores for each variable between own rating and perceived organisational rating. Any points inside the black circle represent variables which the individual rates more highly than the individual thinks the organisation would rate, such as “enjoy



work”, and “think of self as well as organisation”. Points outside the black circle demonstrate where people think their organisation would give higher values than their own in terms of importance to the meaning of commitment. Outside the black circle, it can be seen that the most extreme points are “hours over the norm”, “availability”, “putting yourself out”, “doing your best for the organisation” and “duty”. Both men and women in the British company thought that their organisation would rate “enjoy work” far less highly than they did themselves. The most striking feature of Figure 6.2 is that both men and women identified large differences in how they rated the importance of “hours over norm” in terms of the meaning of commitment, and how they thought their company would rate it.

### **6.2.3 The Swedish Male and Female Ratings**

Turning now to the findings from the Swedish ratings by gender, Figure 6.3 shows the ratings given by the Swedish males and females with the heavier lines as their own, whilst the thinner lines denote their perceptions of ratings by their organisations. Here, there are similarities and differences to the British sample responses. Note the stronger importance of “creativity” to the Swedish men and women (compared to the British in Figure 6.1), and to “concern for people”. Higher ratings than the British were given to “being ready for challenge”, responsibility and “task delivery”. The Swedish females, like their British male and female colleagues, rated “wanting to succeed” more highly than did the Swedish males.

Women in the sample rated “get balance” considerably higher for themselves compared to the perceived rating for the organisation. The difference for men on “get balance” also was rated higher, but was not as great as for the women. Both men and women rated “pride” more highly than they thought their company would do, but Figure 6.1 shows that although the gap differences were similar numerically, males put much more importance to the concept of “pride” than the females. Pride is part of identification with the organisation, a key feature of commitment (Mowday et al, 1982).

When the averaged perceived differences in ratings (see Figure 6.4) between own and organisation values are examined, a fairly similar pattern to that of the British sample can be seen, shown in Figure 6.2 above, with both men and women identifying gaps over “hours over norm” as the key feature of difference outside the black circle, and “get balance” as the key feature for Swedish women, and to quite an extent for Swedish men. The Swedish women thought their organisations would value “want to stay” more highly than they did themselves. “Keeping technically updated” was rated higher by the women in both countries, reflecting the findings of Ragins, Townsend & Mattis (1998) that top women felt a need to consistently exceed performance expectations. By ensuring that their technical skills were maintained and improved, women engineers could demonstrate equal technical competence to their male peers.

A visual comparison of Figures 6.2 and 6.4 shows that there are greater gaps between the Swedish men and women’s value lines than between those of the

British men and women. This may indicate that the Swedish women are facing more tension than the British women between their own values and those of their male peers. A difference in the two groups of women was that more of the Swedish women had children, and therefore had to make adjustments in their commitment to suit others.

#### **6.2.4 A Comparison of British and Swedish Female and Male Ratings**

Figure 6.5 shows that there are similarities of emphasis for the British and Swedish women engineers. Most of the data points are following the same trends of ratings, particularly so on “hours over norm”, “think of yourself as well as the organisation”, “wanting to succeed”, “enjoy work” and “get a balance”.

The British/Swedish male ratings comparison shown in Figure 6.6 also highlights “hours over the norm”, “enjoy work” and “get a balance” but there is less difference between own and perceived organisational rating on “want to succeed” by the Swedish men. This reflects the differences on the Hofstede (1980) dimension of masculinity—femininity. Commitment as “control” was rated very low on own meaning, but somewhat higher on perceived organisational meaning by both Swedish males and females. Pride was rated much higher on personal meanings compared to organisational meanings by the British males. Overall, the gaps between British and Swedish male responses are larger than between the British and Swedish females.

Note that both British and Swedish women engineers thought their company would rate “wanting to stay” (ie continuance commitment) higher than they did themselves, although their own ratings were similar to those of the British males, around the 4.5 mark for both own and organisational ratings, in contrast to the Swedish males’ rating of 3.3 for both.



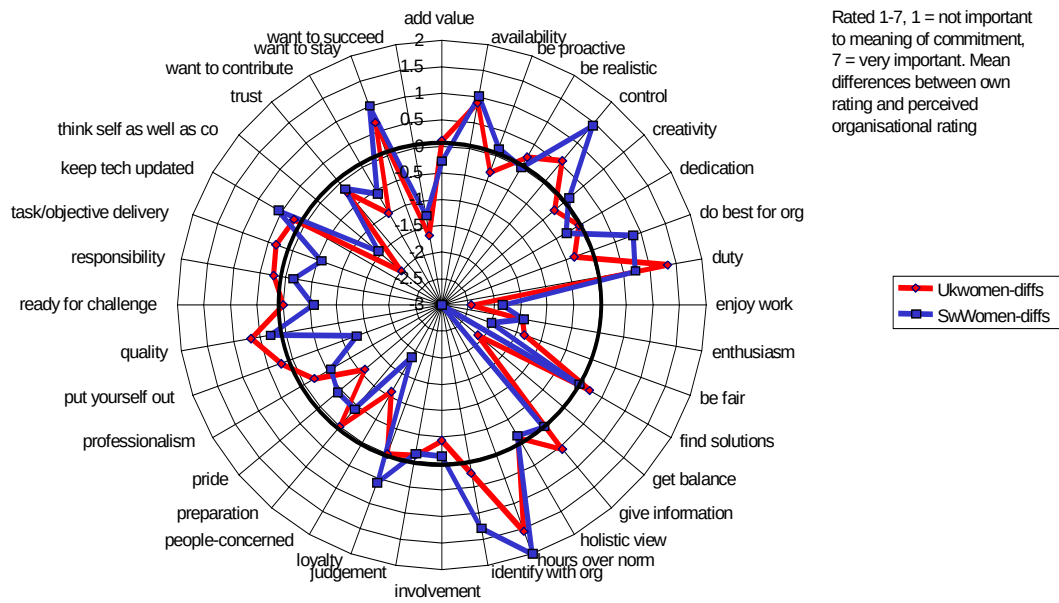
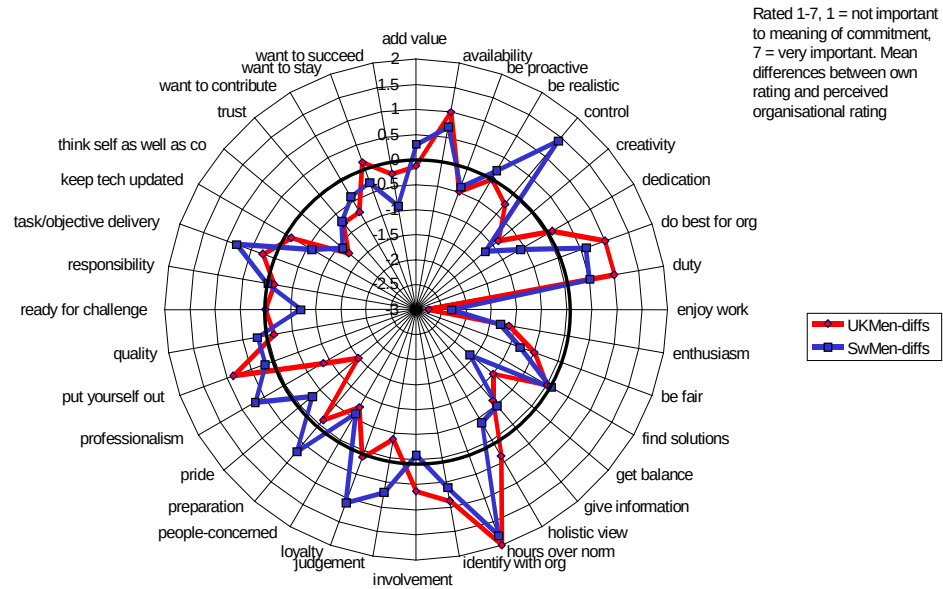


**Figure 6.5: British and Swedish Women Engineers: Comparison of Differences between Own and perceived Organisational Meanings of Commitment.**

**Figure 6.6 British and Swedish Men Engineers: Comparison of Differences between Own and perceived Organisational Meanings of Commitment.**



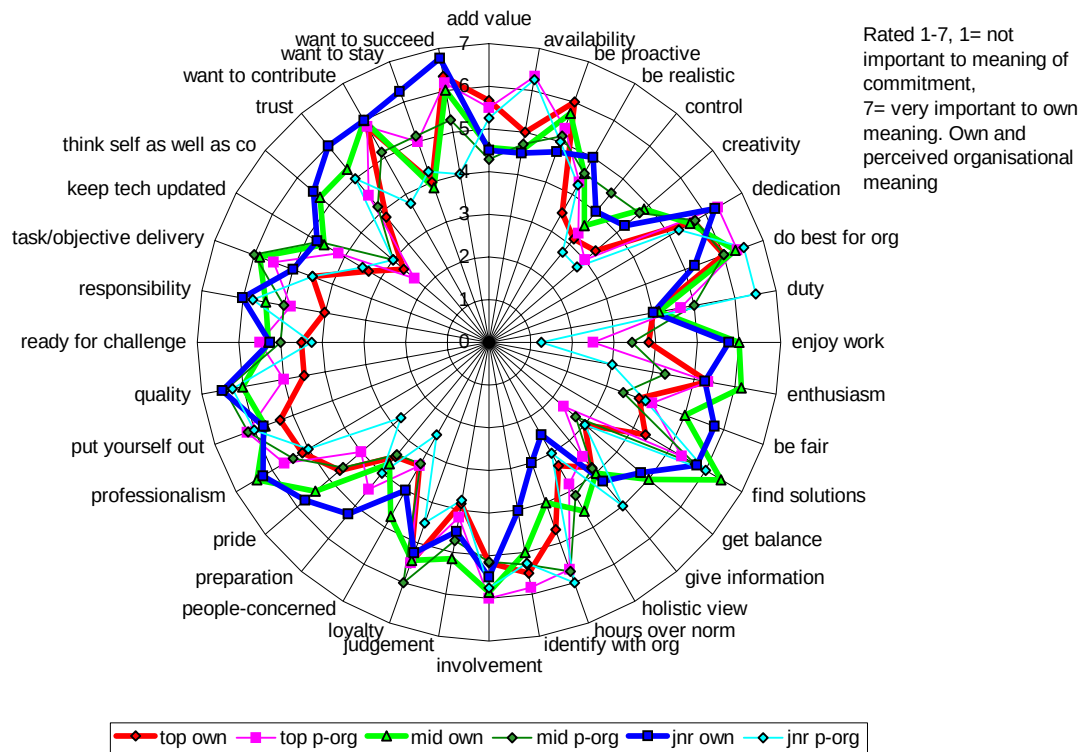


**Figure 6.7: British Top, Middle and Junior Managers' Ratings of Importance of Meaning of Commitment**

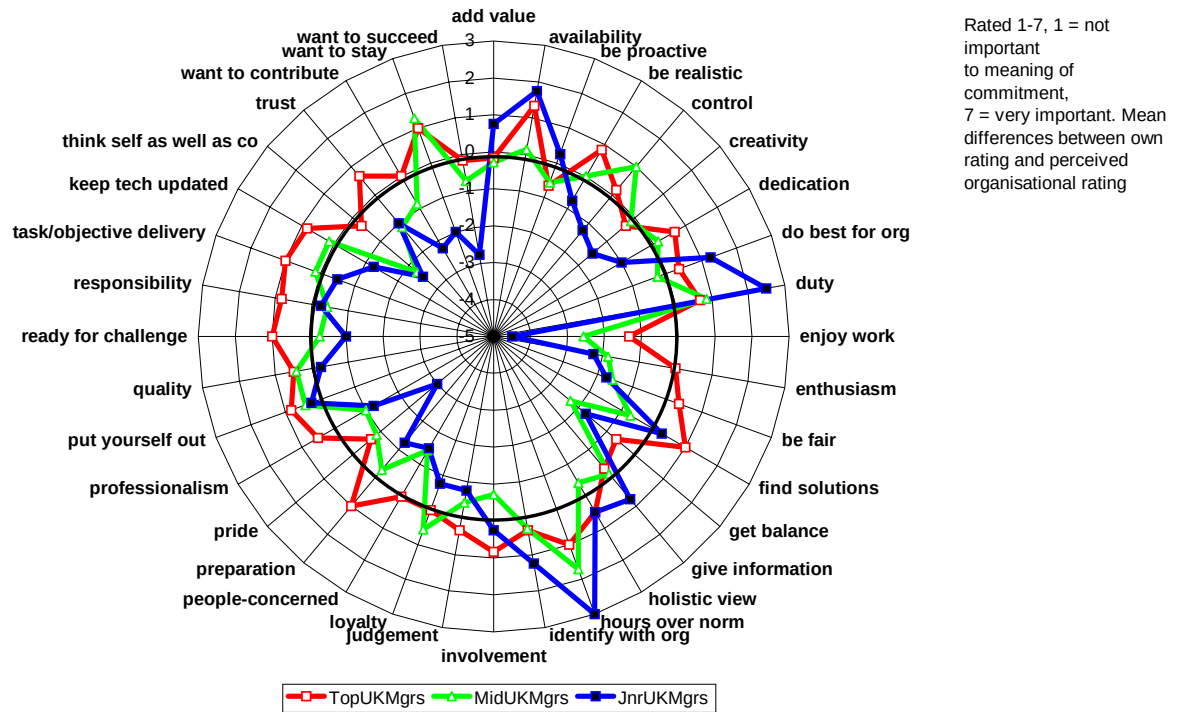


**Figure 6.8 British Top, Middle and Junior Engineering Managers: Differences between Own and Perceived Organisational Ratings**

**Figure 6.9 Swedish Top, Middle and Junior Managers' Ratings of Importance of Meaning of Commitment**

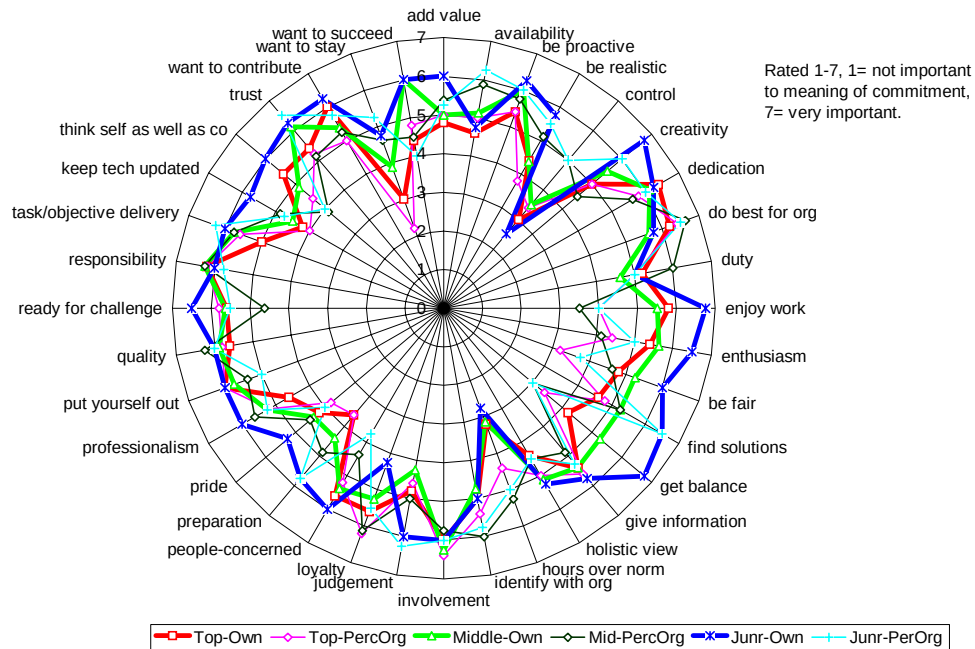
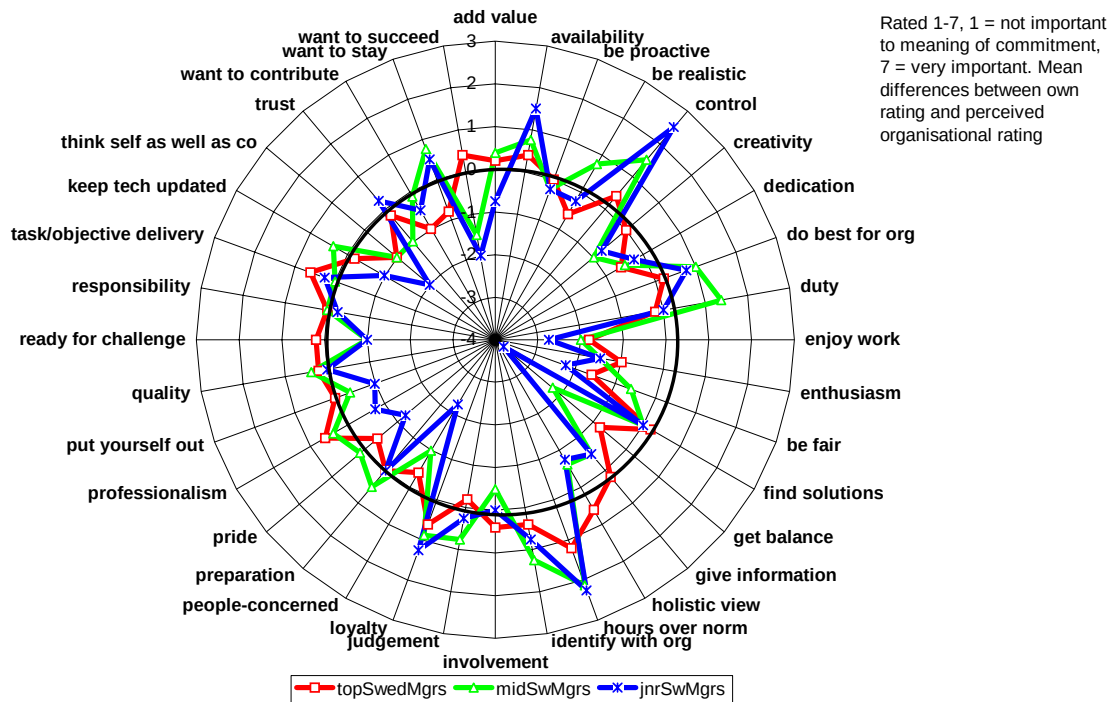


**Figure 6.10 Swedish Top, Middle and Junior Engineering Managers: Differences between Own and Perceived Organisational Ratings**



### 6.2.5 British Top, Middle and Junior Management Level Ratings

Next, the managerial level differences in rating of importance of own and perceived organisational meanings of commitment are considered. Figure 6.7 shows the overall ratings. Again, whilst the patterns are broadly similar, some differences can be seen, particularly between the junior manager's own rating and their view of how their organisation would rate the importance of the meanings. Variables with ratings of more than 6 out of 7 included add value, be proactive, dedication, do best for organisation, duty, enjoy work, find solutions, professionalism, quality, task delivery, want to contribute, want to stay, and want to succeed.

Figure 6.8 indicates the differences between own and perceived organisational rating of each of the meanings in terms of importance. As might be expected from the senior-most representatives of the companies, the top managers responded with more similar own and perceived organisational rating, their line running close to the black circle indicating congruence of rating of meaning. Furthest from the black circle are the rating differences given by the junior managers. They felt that their organisation would put a different value on these meanings than they did themselves.

### **6.2.6 The Swedish Top, Middle and Junior Management Level Ratings**

The Swedish pattern in Figure 6.9 indicates higher ratings by the junior managers for their own meanings. Like their British counterparts in the sample, the Swedes did not rate highly the “hours over the norm” concept, but expected that their organisations would value that higher than they did themselves. Again, the evidence shows low values for continuance commitment, the desire to stay in the organisation.

Figure 6.10 indicates again the lack of congruence of rating of meanings of commitment to do with hours over the norm, get a balance, enjoying work, having concern for people, and duty. Junior managers had the biggest gaps in ratings between own and perceived organisational rating. The junior managers rated commitment as meaning “control” much lower than they perceived their organisation would do. Like their British counterparts, the Swedish top managers had more congruence of the two sets of ratings than their middle and junior manager colleagues, although they were still indicating tensions on the same variables as those below them. Note that the Swedish top, middle and junior manager differences in Figure 6.10 are much closer together than those shown on the equivalent British chart in Figure 6.8, indicating that the Swedish managers at the three levels were more homogeneous in their views of their own commitment meanings and those of their organisation, compared to the British, where different levels had a wider spread of dissonance.

### **6.2.7 Summing Up of Ratings Results in Section 6.2**

When the 36 variables elicited as meanings of commitment were reviewed by the researcher, it was felt necessary to identify those which were more important to the managers in the sample, given the findings which were not all fitting with what was expected from the literature (on continuance commitment, for example, and the emphasis on getting balance which was emerging from the interviews). The researcher did not want to impose her own ranking of importance onto the data, as the study's aim is to identify managers' meanings. The purpose of the rating instrument was to check that the wide range of meanings of commitment given by the respondents during the interviews were to be taken into account as part of their personal meanings of commitment, and to put their values into the analytical framework. By asking them to rate for themselves and for how they perceived their organisation would rate these meanings, it became possible to confirm some of the analysis of the interview data, particularly on the group of meanings which did not fit the literature on commitment very well. These were: enjoying work, getting a balance, having concern for people, and thinking of oneself as well as the organisation, in contrast to the commitment literature meanings of loyalty, identification and effort (Mowday et al, 1982; Meyer & Allen, 1990). As the career anchor data indicated, many engineering managers in this group had lifestyle anchors, meaning that they would seek balance in their working and non-working lives, even though most of the sample were in high profile positions, some managing thousands of professional engineers in a leading high

technology industry. The “hours over the norm” meaning of commitment was rated low by most interviewees personally, yet they perceived that their organisations would attach high importance to that meaning. Table 6.2 gives an overview of responses by gender.

So these engineering managers were identifying for themselves where there was dissonance between their own and their perceived organisational rating of importance of the elements of the meaning of commitment. They were making choices as to how much commitment they were willing to give, on the basis of their own understanding of the organisational views. Just as in the elicitation of the commitment role model characteristics reported in Chapter Five, these respondents were stating that although these characteristics were those by which they identified high commitment, not all of them would be willing to give so much, so many hours to the organisation. Yet they would be unaware of what ratings their top managers would actually give. In fact, the top managers were indicating similar tensions, but overall the gaps between the personal and perceived organisational ratings were smaller than those of middle and junior managers. If the top managers could be seen as representing “the organisational view” as the culture bearers of the organisation (Schein, 1985; Louis, 1983; Schneider, 1990), then the ratings in this study provide some evidence of that view. This can be compared with the ratings of those lower down the organisation, as has been done in Figures 6.7 to 6.10. Figure 6.10 highlights that the top managers also had indicated tensions on “hours over norm”, “balance”, “enjoy work” and “think of self as well as organisation”, even though the differences were not as great. The gaps between the engineering managers’ own and perceived organisation ratings of importance of meanings therefore could indicate tensions in the perceived relationship between individual and organisation. These tensions are to do with personal space (eg get balance, think of self as well as organisation), job satisfaction (eg enjoy work) and perceived organisational demands for long hours, duty and availability, ie balance in the relationship. They could be said to form part of the individual psychological contract with the organisation. The next section confirms that emphasis on seeking balance, revealed by the interviewees’ career anchor inventory responses.

**Table 6.2 Gender differences in ratings of importance of commitment**

| <b>British Men</b>                                    | <b>British Men</b>                                   | <b>British Women</b>                                  | <b>British Women</b>                                 |
|-------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|
| <b>Rate higher than they think organisation would</b> | <b>Rate lower than they think organisation would</b> | <b>Rate higher than they think organisation would</b> | <b>Rate lower than they think organisation would</b> |
| Be proactive                                          | Availability                                         | Be proactive                                          | Availability                                         |
| Creativity                                            | Do best for org                                      | Do best for org                                       | Control                                              |
| Enjoy work                                            | Duty                                                 | Enjoy work                                            | Duty                                                 |
| Enthusiasm                                            | Holistic view                                        | Enthusiasm                                            | Give information                                     |
| Be fair                                               | Hours over norm                                      | Be fair                                               | Hours over norm                                      |
| Get balance                                           | Identify with org                                    | Get balance                                           | Quality                                              |
| Be people concerned                                   | Involvement                                          | Involvement                                           | Want to stay in org                                  |



|                                                       |                                                      |                                                       |                                                      |
|-------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|
| Pride                                                 | Put yourself out                                     | Be people concerned                                   |                                                      |
| Professionalism                                       |                                                      | Pride                                                 |                                                      |
| Think of self                                         |                                                      | Professionalism                                       |                                                      |
| Pride                                                 |                                                      | Think of self                                         |                                                      |
| Trust                                                 |                                                      | Want to contribute                                    |                                                      |
| Want to contribute                                    |                                                      | Want to succeed                                       |                                                      |
| <b>Swedish Men</b>                                    | <b>Swedish Men</b>                                   | <b>Swedish Women</b>                                  | <b>Swedish Women</b>                                 |
| <b>Rate higher than they think organisation would</b> | <b>Rate lower than they think organisation would</b> | <b>Rate higher than they think organisation would</b> | <b>Rate lower than they think organisation would</b> |
| Be proactive                                          | Availability                                         | Add value                                             | Availability                                         |
| Creativity                                            | Control                                              | Enjoy work                                            | Control                                              |
| Dedication                                            | Do best for org                                      | Enthusiasm                                            | Do best for org                                      |
| Enjoy work                                            | Duty                                                 | Be fair                                               | Duty                                                 |
| Enthusiasm                                            | Hours over norm                                      | Get balance                                           | Give information                                     |
| Get balance                                           | Identify with org                                    | Be people concerned                                   | Hours over norm                                      |
| Ready for challenge                                   | Have judgement                                       | Preparation                                           | Identify with org                                    |
| Keep technically updated                              | Loyalty                                              | Pride                                                 | Have judgement                                       |
| Trust                                                 | Preparation                                          | Put yourself out                                      | Keep tech updated                                    |
| Want to succeed                                       | Professionalism                                      | Ready for challenge                                   | Want to stay                                         |
|                                                       | Task delivery                                        | Task delivery                                         |                                                      |
|                                                       |                                                      | Think of self                                         |                                                      |
|                                                       |                                                      | Want to contribute                                    |                                                      |
|                                                       |                                                      | Want to succeed                                       |                                                      |

### 6.3 CAREER ANCHORS

Career anchors are the self-concepts which, according to Schein (1996, p.80) consist of “1) self-perceived talents and abilities, 2) basic values and most important, 3) the evolved sense of motives and needs as they pertain to the career”. The career anchor concept is very important in a study of commitment, as the anchors represent the underlying values and motives on which an individual would not compromise when facing choices in accepting or rejecting the terms of their commitment as part of their psychological contract. Schein identified initially five career anchors, autonomy/independence; security/stability; technical/functional competence; general managerial competence; entrepreneurial creativity. In the early 1990s, he later added a further three: service or dedication to a cause; pure challenge; and lifestyle.

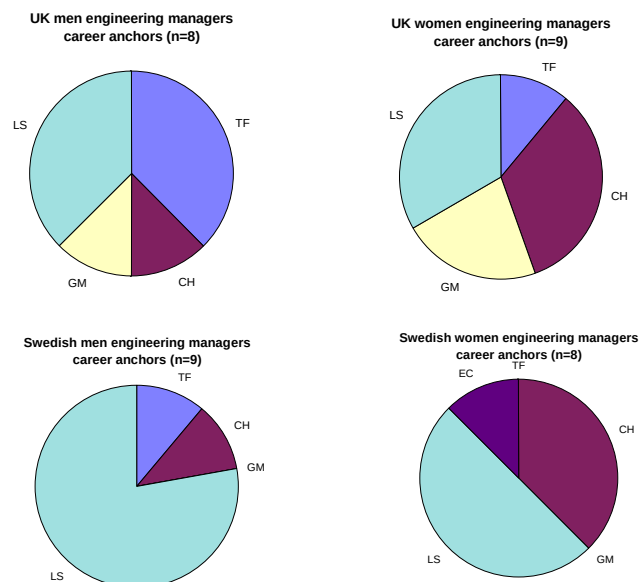
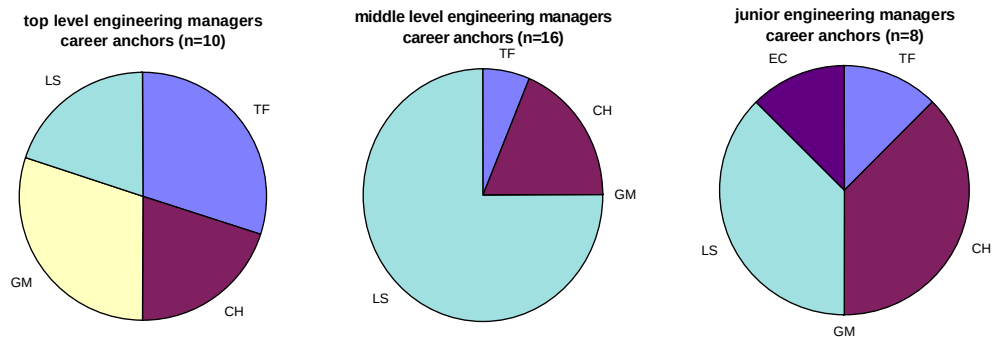


**Figure 6.11 British and Swedish Male and Female Engineers' Career Anchors**

Analysis of the first six interviews showed that respondents were mentioning evidence of high commitment but at the same time were indicating the importance of balance of commitment in their own lives. It was decided to ask all interviewees to complete Schein's self-report career anchor inventory, after their interviews. All but one of the 35 engineering managers in the main sample sent back the forms.

**Figure 6.12 Career Anchors of Top, Middle and Junior Engineers**

Figures 6.11 and 6.12 show that half the sample (and three-quarters of the Swedish males, and three-quarters of the total group of middle managers) had Lifestyle (LS) anchors, whilst the rest were divided between Pure Challenge (CH), Technical/Functional Competence (TF), General Managerial Competence (GM) and just one had Entrepreneurial Creativity (EC). The LS anchor, according to Schein (1990) is held by those who want flexibility in their work-lives, for instance to relocate when it suits the family but not when it does not suit. This more recently identified anchor was originally found in female MBA students, but is increasingly found in male managers, reflecting trends in society towards the seeking of more balanced life-styles, particularly by dual career couples.

Two-thirds of the Swedes had this anchor, compared to just over a third of the British engineers, but the split was different for Swedish men (78%) and women (49%). Whilst in the whole group, sixty per cent of the males compared with forty per cent of the females had LS anchors, in the British sample, the LS anchor was held by only around a third of both men and women. Also, overall, six of the women had challenge (CH) anchors, compared to only two of the men, both of whom were junior managers. People with CH anchors seek to achieve by overcoming ever more difficult problems, the job challenge being the key feature of their work choices. The CH anchor was strong for UK women (34%), Swedish women (38%), and junior engineers overall (37%).

The biggest group to have technical/functional competence (TF) anchors was the top managers, closely followed by UK males. TF-anchored people's motivation is to use their talents and be recognised as experts. Their work has to be challenging, they seek autonomy in executing goals, and they often want to do whatever it takes to do the job properly.

Three UK top managers had general managerial (GM) anchors, which means that they would seek advancement up the corporate ladder, needing analytical competence as well as inter-personal, inter-group and emotional competence for success and satisfaction in their lives. None of the Swedes had a GM anchor.

It can be seen from these results that only four anchors were prevalent in this sample: lifestyle, technical/functional, pure challenge and general managerial. This may be compared with Igbaria, Greenhaus & Parasuraman's (1991) findings of anchors of MIS (Management Information Systems) engineers, where TF was the most frequent anchor for systems and applications programmers and software engineers, whilst GM was the most frequent anchor for systems analysts, project leaders and computer managers. They reported a link between higher commitment, career and job satisfaction and lower intention to leave the organisation for engineers with a career anchor compatible with their work settings.

However, the current sample differs from that of Igbaria et al in that the current sample shows a third of British males and females having the LS anchor, as did 78% of the Swedish males and just under half of the Swedish females. Igbaria et al's (1991) US sample of MIS engineers had a higher percentage of females who were lifestyle oriented (21%) compared to males (8%), their explanation being that this "reflects the primary responsibility for domestic and childcare activities that employed women continue to shoulder" (p.165). They predicted the LS anchor to become more prevalent in future, as has happened in the current sample of mostly senior and middle managers in high technology engineering.

This lifestyle anchor, with the desire for balance in one's working life and non-work life is also reflected in the evidence from the ratings questionnaire, which was the subject of Section 6.2. The anchor information will now be used to review how individuals with particular anchors would be motivated as part of their psychological contract with their organisations, in Section 6.4.

## 6.4 LINKING CAREER ANCHORS AND COMMITMENT

### 6.4.1 The Career Anchor Drivers and Rewards

To obtain a better overview of the motivations relating to these career anchors, which are likely to impact the individual's meaning of commitment, this section reviews comments made by the individuals about their commitment relationship. The Career Anchor categories of these subjects were TF, GM, CH and LS. It should be remembered that the individual has one anchor, but that they give scores on the Career Anchor Inventory for all eight anchors. In this sample, the highest aggregated scores were for LS, TF and CH. Scores for GM followed, slightly behind AU on the aggregated scores, but ahead of AU in terms of numbers of individuals, as none had AU as their anchor. Therefore, the career drivers are considered only for the anchors of LS, TF, CH and GM, plus Security (SE) which was an issue for some of the male managers. See Table 6.3.

**Table 6.3 The Career Anchor Drivers and Employee Rewards**

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical /Functional | <p>Focus on the technical content of the work</p> <p>"I am more interested in having an interesting job or interesting things to work with, than to have a nice big office. It seems to be very important for most of the men, the male engineers, that they have status, like where they can park their car." (<i>Swed-B female middle manager</i>)</p>                                                                                                                                                                                                                                                                                       |
|                       | <p>Demand autonomy and resources in the execution of the work</p> <p>"There are a number of intangibles. Like allowing you to run your business your way, allowing you to get involved in things, like IMechE meetings and other activities. It's another way of allowing you to get involved in another part of your job, which brings a bit of variety or freshness. Yes, you measure all those sorts of things." (<i>UK-A male senior manager</i>)</p> <p>"The company has to give me all I need, the resources to do the job" (<i>Swed-B female junior manager</i>)</p>                                                                    |
|                       | <p>Seek specialist role</p> <p>"Part of my commitment to the company is, having decided I'm in the top 25 of what I do, but not the top 25 as a project manager, then I believe that as long as UK-A wants my technology, then I'm of more value to UK-A as I can impact the bottom line more from the technical job than I could from the management job" (<i>UK-A male senior specialist</i>)</p> <p>"I'd like to be the company's tolerance expert. It's mainly a question of self-pride, you know when you are doing a good job by yourself, with a tolerable amount of recognition by the company." (<i>UK-A male junior manager</i>)</p> |
|                       | <p>Will go into senior technical management as necessary, but view management as less attractive job</p> <p>"You get to the point where I currently am, where you really have to make the decision, do you want to stay with your technology, or do you want to get on within UK-A. ... It will cost me in terms of prospects to go above a certain level within the company, and therefore it will cost me both status within UK-A, and will cost me financially in the end." (<i>UK-A male middle manager</i>)</p>                                                                                                                           |

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p><b>Strong demand for external recognition, by peers, by those who appreciate the technology</b></p> <p>"It builds you up. You realise, I've got a highly complex subject here, and hey, you've really got stuck into something. You are now acknowledged as an expert in that particular field. So then if you're an expert in this field in this company, that immediately means you're talking world class stuff, and that gives you quite a buzz." (UK-A male senior manager)</p> <p>"I get immense satisfaction from what I do, from knowing where I stand in the engineering community" (UK-A male middle manager)</p>                                                                                                                                                                                          |
| Pure challenge     | <p><b>Similar to TF, but driven by self-actualisation needs to overcome ever greater challenge</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                    | <p><b>Drive to find challenges and solutions</b></p> <p>Identification with the company "it gives you – I'm coming back to the word 'commitment', though I don't usually use it in these terms – it gives you the ability to think: Well, I know I'm being asked to do this, actually I think it would be really interesting if while we're doing that, we also looked at this other opportunity to evaluate that, and compare them" (UK-A male senior manager)</p> <p>"You want to make something new happen, but you're not sure how to do it. So there's the uncertainty element of it, it's a challenge, and of course, the high, the adrenaline kicking in, as you climb up out of that, so it's the rate of change, the gradient as you climb through that actually turns you on." (UK-A male senior manager)</p> |
| General Managerial | <p><b>Seek career advancement</b></p> <p>"It is important to have opportunities to develop, to have the competence." (Swed-B female senior technologist)</p> <p>"Having the chance to get more competence and self-confidence, that is important" (Swed-C female middle manager)</p> <p>"Away from the money side of things, if you feel you're being valued, and recognised for what you've done, and also you get the opportunity to progress. I mean, you're not held back if you feel you are able to progress. That's reward. I think that's more important than the money at the end of the day, because if you had a lot of money and a very boring job, it would not be very interesting." (UK-A male senior technologist)</p>                                                                                  |
|                    | <p><b>Want to contribute to organisation's success</b></p> <p>"When things are going badly, everybody will really work hard to get the company out of a problem" (UK-A female middle manager)</p> <p>"It isn't just a job, it's not to fill the time to get a salary. They believe in it, and believe they can contribute something significant to it, and probably wanting to be recognised" (UK-A female middle manager)</p>                                                                                                                                                                                                                                                                                                                                                                                          |
|                    | <p><b>Seek to influence</b></p> <p>"You know that it is in your interest, by doing these tasks, and by doing them well, it has to have a contribution to how well the organisation views you as a prospect, and hence, that enables you, if you're going for promotion or a position, you then have a change to influence and get your agenda on the next time round." (UK-A male senior manager)</p> <p>"It actually gives you the ability to do things with a personal agenda, and you can actually take responsibility" (UK-A male senior manager)</p>                                                                                                                                                                                                                                                               |
|                    | <p><b>Identify strongly with organisation</b></p> <p>"We are certainly No 2 (in the world) and that's a big kind of credit, to think that you've been involved in that. So generally, people feel fairly proud of being involved and being associated with that product and that company" (UK-A female middle manager).</p> <p>"It gives me a feeling of strength that I am representing a big company, and I think I could talk with pride of Swed-C. I am not at all ashamed of saying that. I think it is good work, and I am proud." (Swed-C male middle manager)</p> <p>"It makes me feel good. And it makes me feel I have to be very strong, and I have to be very good. I have to work hard. ... Because I have in my mind that I am representing the company." (Swed-C female senior technologist)</p>         |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | <p><b>Results driven, goal oriented</b></p> <p>"If you find that your boss and the organisation around you want it as much as you do, whatever that is, a particular project, piece of work, then you will put in the effort, you feel happier doing it, you can see that it is the whole team that is moving forward." (UK-A female middle manager)</p> <p>"I've taken an internal commitment that I'm going to do this [task/objective], and I've agreed to do it, and I've done a bargain. I'm going to do it, so I do it. .... The fact that I've said, yes I will, that to me is a bargain with the people who've asked me to do it, for me to give the best commitment I can." (UK-A female director)</p> |
|            | <p><b>Maintain view of own external value</b></p> <p>"Working with R&amp;D is more than a financial arrangement. It gives you a chance to do something on a very high technical level, that people can observe you outside the organisation. ... Getting recognition internally gives you a rise in salary, getting it externally it may give you an opportunity." (Swed-B male senior manager)</p>                                                                                                                                                                                                                                                                                                             |
|            | <p><b>Need frequent promotion/moves</b></p> <p>"It was discovering your technical competence, capability, excellence, you know, moving through the stages, measured against your peers." (UK-A male senior manager)</p> <p>"It depends whereabouts you are in your career. At the moment, I'm looking for career progression, because I want to advance and get on, I think that's my important thing. Coupled with that is reward, whether it be salary or a pat on the back, sometimes that's enough, but don't tell the director that!" (UK-A male senior technologist)</p>                                                                                                                                  |
|            | <p><b>Concern for high salary, status, benefits, in comparison to peers.</b></p> <p>"Recognition is important, but the only way it comes out here, I think, is by job titles and money. Money is for use as a comparison between what you earn and what someone else earns." (UK-A female middle manager)</p>                                                                                                                                                                                                                                                                                                                                                                                                   |
| Life Style | <p><b>Seek integrated work/outside work life</b></p> <p>"When I got this opportunity to become a group leader, I discussed all these things. I have small children. I have to make my days shorter sometimes, and I haven't the possibility to work late every night." (Swed-C female middle manager)</p>                                                                                                                                                                                                                                                                                                                                                                                                       |
|            | <p><b>Work to achieve balance</b></p> <p>"I'm committed to the company, but I've also got other commitments to my personal life and things like that. So it's fairly well-matched." (UK-A male senior technologist)</p> <p>"I'm not willing to take the next step. I've been a staff technologist for many years now, and can't see any benefit whatsoever in going any further. ... Because professional engineer, the next step on the ladder, is a management grade, with all the drawbacks which go with it." (UK-A female senior technologist)</p>                                                                                                                                                         |
|            | <p><b>Interesting job</b></p> <p>"I am satisfied with the small things, for instance, having lunch with the customers and other people. And meeting the big people, and people from outside." (Swed-C male senior specialist)</p> <p>"There are very bright memories. I have seen a lot of the world by working with Swed-C. It gives me experiences and memories, that, when they bury me, I take that with me. That's the only thing, memories and experiences, what you can bring with you when you leave the earth. And I think that is a two way communication." (Swed-C senior manager)</p>                                                                                                               |
|            | <p><b>Relationships are important</b></p> <p>"In this community, everybody here has some relationship with this company, even if they don't work here, somebody in the family has something to do with this company." (Swed-C male middle manager)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Security   | <p>"Now if there's no job security there, then perhaps my incentive for working hard goes away. ... I'm quite happy to commit myself to the company, and to the job I do, as long as I feel I am getting some commitment back – job security and career progression." (UK-A male senior technologist)</p>                                                                                                                                                                                                                                                                                                                                                                                                       |

Table 6.3 indicates that there are strong similarities between the career anchor driver descriptions provided by Schein (see Chapter 2.4), and the responses of these engineers as employees about the non-financial benefits to them resulting from their commitment to their company. The responses are similar to the list of company obligations expected by the newly hired MBA graduates of Rousseau's (1990) study, where they sought promotion, high salary with performance-related pay, training, security and support for personal problems. However, in the present study, there is an emphasis on getting challenging work, and on achieving a work/nonwork balanced lifestyle.

This section has identified the motivations attributed to the various career anchor categories. The next section moves on to consider the tensions identified in the ratings of meanings, particularly around achieving work and nonwork balance.



## 6.5 MANAGING THE TENSIONS: WORK/NONWORK BOUNDARIES

### 6.5.1 Review of Chapter Six so far

This section takes further the issue of the perceived tensions between employee and employer, identified in Section 6.2 between the importance of the meanings of commitment elicited in the interviews. From those tensions, together with the career anchor data, an understanding has been gained of the motivational bases of these engineering managers, of the expectations they may have in terms of career and work rewards from their companies. Next, consideration is given to how this sample has dealt with their own work/nonwork conflicts. This may influence how they would assess the commitment of those who are constrained by family circumstances, as managers may assume that others can (or even should) make the same choices that they make themselves. This is particularly important in the case of assessment of commitment of women, and even more so for those with children. Through examining the way in which these engineering managers dealt with the work/nonwork commitment boundaries in their own lives, light may be shed on how they would respond to the family constraints of others in similar circumstances. Thus, an understanding may be gained of their expectations as managers and assessors of their subordinates' commitment in the commitment exchange process. The commitment assessment process itself will be examined in Chapter Seven.

### 6.5.2 Zone of Acceptance of Commitment Terms

Rousseau (1995) described the psychological contract as having a "zone of acceptance" within which the terms of the contract could be "stretched" by either party without too much harm to the agreement, until a non-acceptable limit was reached and commitment severely damaged. There is evidence of such a zone in the commitment aspects of the psychological contracts described by these engineering managers. These engineers were identifying in their rating (see Section 6.2) where they felt that there were tensions between their own commitment and that valued by the organisation. Table 6.2 (in Section 6.2) summarised the meanings which they rated higher and lower than they perceived their organisation would do. In particular, there were strong tensions on five factors, the strongest being on **hours over the norm**, perceived to be much higher rated by the organisation. The engineers rated more highly: **enjoying work, getting a balance, having concern for people, and thinking of oneself as well as the organisation**. These are the issues over which their psychological contract is likely to be stretched, and which they have to manage, under the influence of their career anchor motivations. It should be remembered that half the sample had lifestyle anchors (and the other half rated LS highly), indicating that they would not be prepared to compromise too far, or go beyond the zone of acceptance, on life balance issues. The next sections address these

five factors individually, leaving balance till the end, as it could be viewed as a conglomerate of the others.

### **6.5.3 Tensions on Hours over the Norm**

The engineers were asked whether their commitment (as they saw it) intruded on their non-work life. The most frequent response was about the problem of working long hours, which impacted on family life, particularly for those with young children.

“It feels like the family is there, it will always be there even if I work 12-14 hours a day, it will be there and they don't bother when I am here or when I am at home. I think of work all the time. ... And sometimes it gets too much, and probably on those occasions, those who suffer then is the family.”  
(*Swed-B male middle manager*)

There was a sense of staggering commitments when necessary. One British engineer said:

“I've got a young family, three children and I feel a very high sense of commitment to my family. There are times when the job can sometimes conflict with that.”

He had had to work long hours just before Christmas, “at the expense of the family”. But he had come to terms with that pressure, and redressed the balance.

“You recognise that this is a temporary thing. ... When the pressure eased off a bit, like before Christmas, I do remember actually having a feeling that, right, now I must, I've got to spend more time with the kids now, put more into that. I guess at the time, it was a pretty conscious decision to switch your emphasis over to your family, which I did do. You still feel committed at work, but you have spent a lot of energy on that, and you have to restore the balance.” (*UK-A male middle manager*)

The most senior Swedish woman in the sample said that she felt no conflict now over giving additional hours to the company when necessary, but she felt some concern about whether she had done the right thing in getting nannies for her children earlier on in her career, now that she had grandchildren and could see the choices she made then more objectively.

### **6.5.4 Tension on Enjoying Work**

Some of the engineers talked in the unprompted part of the interviews about enjoying work as part of their meaning of commitment, and certainly nearly all of them rated “enjoy work” highly (mode = 7 on the seven-point scale with 7 the highest on importance of component meaning of “commitment” at work) as part of their commitment in the post-interview questionnaire. They felt that the enjoyment strengthened their relationship with the company. This fits with Fineman (1996)'s description of the motivational properties of positive emotion at work, in particular job enjoyment and happiness at work, which are distinct from job satisfaction. Fineman quotes Peters & Austin (1985) saying that “love, empathy, verve, zest and enthusiasm are the *sine qua non* of managerial success and organisational

‘excellence’”. The enjoyment at work forms part of the affective relationship with “the organisation”, the job and the people.

“I don’t know if it is commitment, or what it is, but I like my work, and work a lot.” (*Swed-C male senior manager*)

“Now I feel like I want a job where I feel happy, and if that means I get a job where I have work a lot of overtime, it doesn’t matter. But I can also get a job where I can work 8 hours a day and that’s okay, it is more like, I want to feel good.” (*Swed-B female middle manager*)

Although they reported wide differences in the ratings (see Figures 6.2 to 6.11 earlier in this chapter) indicating tension on value (of “enjoy work” as part of the meaning of commitment) between individual and organisation, the engineers did not report much about any tension on this item during the interviews, other than one engineer who reported that where he did not enjoy a particular task, it was still delivered but he felt less happy with the situation.

“If I’m feeling good about things in general, then I don’t mind staying at work, and if the task is an exciting one and I can clearly see the reason for it, and I am getting on well with my boss and the department and everyone, I get on and do the work, I’m committed to it, and just go home cheerful. When I’m going home grumpy, I’ve still actually done it. I haven’t walked away from what needed to be done, or decided not to bother or whatever. I’ve still done it, but then, the cat’s suffered, or I’ve been miserable at home or whatever.” (*UK-A male middle manager*)

### **6.5.5 Tension on Having Concern for People**

Although there was an emphasis on delivery of tasks and objectives coming from this group of engineering managers as the meaning of commitment, many of them commented on the need for consideration for people as well. The evidence of this concern was reinforced by the ratings which people gave to the importance of this sub-component of commitment, higher than they perceived their organisation would rate it. Some of the managers expressed strong commitment to the people around them.

“You feel committed to helping people perform to the best of their ability, that’s the people who work for you, and you get the best out of them. But you also feel committed to them as people as well. You want them to feel that they are getting something out of the job and they want to succeed. So it’s, you’re wanting to develop people so that they feel good about themselves, because that also gets the best out of them, because that’s the best way of getting good results for the project, for the company. And I do feel quite a sense of commitment to the company, not just for the project that I work on, but particularly for the people that I’m working with, and the people who work for me.” (*UK-A male middle manager*)

This is evidence of the psychological value “concern for others” (Korsgaard, Meglino & Lester, 1996) which is a field of increasing research interest as ethics and moral values are challenged in the present business world.

For some managers in this study, there was tension over the managerial need to deal with people, competing with the excitement of the technology.

"I think I should be more interested in developing people, and I spend a lot of time with that. But I can also see at the same time, that I still have a lot of interest in the technical things, because I am an engineer." (*Swed-B male middle manager*)

Some of the women felt that they were more interested in working with people, not only as a means to obtain the results.

"My boss is very interested in the technology. I am more interested in how we work together, in the work process, to getting the results, and not into details of the technology. But my boss is more concerned or more interested in technology, I would say." (*Swed-C female middle manager*)

Do you think women might be better at managing to keep the whole thing going? "Yes, because we care more for people. But then it is also hard." (*Swed-B female middle manager*)

One engineer also felt that it was an obligation of the company that there should be concern for people, because of the number of hours spent by people at work.

"We are not doing plastic toys. We are not doing this and that. It is eight hours a day of our life here, so there is some commitment to the cause, but mainly to the people working for us." (*Swed-B male middle manager*)

#### **6.5.6 Tension on Thinking of Oneself as well as One's Organisation**

Even those with no family ties but a strong interest in sport, for example, would want to limit their availability at certain times.

"I am working so much, and I don't want to sacrifice all the little time I have. I also commute one hour here. ... So there are only a few hours left, and I want to do sport almost every day." (*Swed-C male project leader*)

"Personally I am appalled at how much time I spend at work, by comparison of how much time I am doing things with my family." (*UK-A male middle manager*)

The need for commitment to oneself as well as to the organisation is supported in the literature by Gordon & Whelan (1998) in a study of mid-career women, where 70% wanted more personal time, and often for the first time in their lives, actually were putting their own needs to the top of the agenda, and accepting the appropriateness of that egocentrism. In the present study, there were comments about commitment and self-interest, and it was acknowledged that people would be likely to maintain commitment to themselves as well as the organisation.

You know that it is in your interest, by doing these tasks and by doing them well, has to have a contribution to how well the organisation views you as a prospect, and hence that enables you, if you're going for promotion or a position, you then have a chance to influence and get your agenda on the next time round. So yes, you do them both together." (*UK-A male senior manager*)

However, some saw the issue as a positive one, as the awareness of their market value would give them confidence in that they were making a contribution to the present organisation on their own terms, by staying.

"I think everybody has a commitment to themselves. ... One of these courses I went on, they said the people you want in your organisation wander around with two job offers in their back pocket all the time, but they've chosen to

stay. And that shows to me that people are committed to themselves, they are looking at what's best for them, and the challenge for the company is to have people who other people want. But the company is offering that individual the challenge and the motivation such that they are maintaining their own skills to the highest possible level, and the benchmarking of that is that other people want them, but their commitment, excitement and enthusiasm for the company is keeping them there. And it's a knife edge, you know, you want them to be just over on the company side." (UK female director)

"I mean, you have to be committed at work, but you've also got your outside life, which is part of your own development and enjoyment, and you can't just come to work all the time. You've got to get away from this place and forget about engineering. So you have your commitments at home, your social lives as well." (UK-A female middle manager)

### **6.5.7 Accommodating the Family Terms**

These engineers acknowledged that they made choices about how much commitment they could give to their company. In particular, the mothers with young children, despite continuing ambitions, now felt that they had to give priority to their family's needs.

"I suppose you could interpret the fact that I've made a choice to have a family in a negative light in relation to commitment to UK-A. The fact that at the end of the day, I chose not to pursue a career to senior management, because I would have had to sacrifice my family. So if you are judging commitment in that sense, I am not committed enough to sacrifice. Some women are. But I think it's unfair to say that men therefore have more commitment. I just think they are in a very fortunate position in not having to make that choice. ... It's just that there is a biological clock which ticks away at just about the time you might be embarking on a career in senior management." (UK-A female middle manager)

Several of the women who were married to more senior managers in the same company felt that they had to put their careers second to those of their husbands.

"Normally, because I have good support networks around me, parents, husband, who can do things, I can juggle things around. He is more constrained than I am, because he's a more senior man in the company. So I feel, if anybody's got to be frowned upon, it's me, not him (laughter). (UK-A female middle manager)

### **6.5.8 Negotiating with the Family**

Most of the sample said that it was difficult to forget work totally, even when they were at home with their family, and so work intruded on family life. But accommodation had to be made in the case of dual career couples.

"I never ever work overtime. I never ever work weekends, because my family is pretty important to me, and my wife works full-time as well. She's a university professor. She does the morning school round and I do the evening. I think it is crucial to avoid being too selfish, that I work no overtime, that I'm actually at home the maximum possible. ... If I get behind with work, I take it home and do it at home, but the kids come first." (UK-A male senior technologist)

“Because of the travelling we were going to do, and because everything had back-up dates, my wife and I realised in March that we couldn’t actually guarantee any weekends to do anything till September. But at the time, I was all hyped up, I was happy doing it. And she was quite pleased to see the satisfaction with my work, and it didn’t matter.” (*UK-A male middle manager*)

Negotiating the coordination or staggering of careers with partners seemed a common strategy for the women in this group. One of the Swedish women aged 33 was putting off having children till she had consolidated her career, although her husband wanted children. They had both recently returned from a secondment to a US collaborator.

“Probably [will have children], but in the near future, no. But he is very committed to his work, and at least the first couple of years, we said, ‘Okay, we want to try and work, and see where that leads us’. And we went to the US, and time is passing, and we are both working very much.” (*Swed-B female middle manager*)

### **6.5.9 Accommodating the Organisational Terms**

The perceived organisational demands for commitment were very high for those in management positions. It has to be acknowledged that the companies would not demand these terms in any formal contract, but the ambitious individuals felt a pressure to deliver in order to be seen as highly committed.

“Basically they want people to put a very high priority to their work and to the company” (*Swed-C male senior manager*)

Women who accepted those demands sometimes put tension on their relationships with their partners. In particular, a young ambitious Swedish senior technologist said that her partner had expectations of her which she could not meet because of her commitment to the company. His philosophy was to get a balance, whilst hers was to progress even if this meant working weekends.

“I have a problem. Because I live with my partner, and he is a manager, but he tries not to work very much after working hours on evenings. Because he has decided about being a chief, and working only 40 hours, and caring for people and doing a good job, and working effectively. That is his philosophy. And he has many hobbies, and he expects me to join him, and I feel very bad when I work here during the weekend.” (*Swed-C female senior technologist*)

Seven UK-A engineers (but only one Swedish engineer) said that they had sacrificed booked family weekends and holidays for the company, as well as working very long hours.

“People would say, Well I’m not available here, this is work time and this is social time and I’m not available. .. My view of commitment is that you should make yourself available, and it’s a reasonable issue, within reason. I mean, I have cancelled holidays in the past, to come into work, and come in on Sundays.” (*UK-A male director*)

### 6.5.10 Negotiating with the Organisation

For those at the top, some of them felt that negotiation of terms was essential, but nonetheless, they still had to be prepared to give up a lot in their personal lives.

“You have to be prepared to take more compromises with your personal life. .. You have to be committed to provide time when you'd rather not, but you have to. .. If you're somebody like me – maybe there are some people at my level who are totally “work” and don't have other things they'd like to do, but not many, because that narrower person isn't usually broad enough to take that job on – yes, you do have to compromise and not do lots of things you'd rather do, because there aren't enough hours in the day to do them.” (*UK-A female director*)

On the other hand, female middle managers with young children were trying to maintain full commitment to both family and work, but there were limits, and they recognised that the setting of these limits might impact their future chances for promotion.

“You'll give up so much, but you're not going to say that you'll give up everything.” (*UK-A female middle manager*)

“I don't want to be on the Board, I would like to be involved in the decision-taking and everything, but maybe at the back. It is difficult to understand – I have views of how to do things, but still, I want to have a good balance in my life, with my family and children, and I think this is difficult to combine this in a very high level job. ... I have told my manager that this is the way I am going to work for maybe ten years or so, because I want to see my children as well.” (*Swed-B female middle manager*)

“There are times when we have much more to do than at others, and if you can manage that you work overtime, that you work more than 8 ½ hours each day, it is very appreciated by the company that you do that. And it is your right not to do that, but it will be very appreciated that you do that anyway. And because I have a little child, I can't do that every time they expect me to, so it is not so good.” (*Swed-B female senior technologist*)

Indeed, there were some in the sample who thought it was not possible to combine “good motherhood” with a fully committed career.

“I would say you have to balance what you want to do. In my view, I don't see how you can be a successful mother and also be successful in industry. I don't see that they are – I think they are mutually exclusive.” (*UK-A male director*)

People said that they were giving the commitment to the organisation when it was really necessary, but it still had to fit around dual career couples' responsibilities to each other and their children.

“If I really have to deliver something in the morning, I would stay till the middle of the night. So it is always give and take to the family too, because if my wife was working, I have to go home. .. I work some overtime, but maybe one hundred hours a year, no more than that.” (*Swed-B male middle manager*)

There was a feeling that unless adequate commitment was given to the family, then commitment at work would suffer, because the family part of life was not working. Hence, they felt it was in the company's interest, and important for the company's results that the managers had balanced lives.

"If you spend a lot of time at work with those commitments, then the efficiency of the work you are doing is probably not that good if you spend too many hours. And if you spend too many hours here [at work], it is less at home, and the commitment will be even worse then. So it is more the quality of what you are doing at work, and how you are when you are at home."  
*(Swed-B male middle manager)*

"I set a limit here. The home life has to work, otherwise it doesn't work at work. So I am not committed to work too much overtime because it affects the life at home, so there is a limit."  
*(Swed-B male senior manager)*

Taking another angle on this balance issue, a female director said that it was quality commitment which mattered, and that it was inefficient to work too many hours.

"I know I cannot work 12 hours a day consistently for days on end. I just can't do it, and I cease to be able to perform. Now to me, what is important is that I know myself well enough to make that judgement, so I make the judgement on the best way I can contribute to meet the objectives. And if that says I am better off doing this for only a short period and then changing it, then it's up to me, it's my judgement."  
*(UK-A female director)*

Where someone with a change in external commitments, (as happens when a woman becomes pregnant), was being considered for a fast track position, the company would set out what they needed from the individual in such a career path. But the company would take the view that it was the individual's choice as to how much commitment could be given to the career, and that together they would come to an accommodation to meet the company's requirements, or the person would not be given the post.

"It's the partnership. It's for them to decide. You've got to say to them, If you're going to be on this fast track, this is the commitment we need from you. We need your honest assessment of whether you can make that, given your new circumstances."  
*(UK-A female director)*

One manager (mid-thirties, unmarried and not a parent) put his view from a management perspective, that people made choices about their level of commitment, and that the company viewed those choices as within the individual's control. People were not compelled to work the very long hours, for instance.

"The guy didn't have to stay till 10 o'clock at night. He is very senior, but he chooses to do it. He obviously gets some satisfaction out of the control he exerts of the company, so I assume he has made a choice that says he is happy with the level of rewards he gets, and the family life it affords him. So I'm not hugely sympathetic really to people who do have the conflict. Within reason, I think most people are in control of that choice."  
*(UK-A male middle manager)*



The organisational response to negotiation for reduced commitment as far as part-time working or maternity and paternity leave was concerned, was that sometimes these were seen as the individual's problem.

"Women have the family. We always discuss the family as a sort of barrier. I don't think it necessary to build it up like that. I have a family, but the man has also got a family." (*Swed-C female middle manager*)

Some felt that these were issues that represented a management problem to be dealt with, quite a shift in attitude.

"I wouldn't have a problem [with part-time work]. It's simply a matter to work around. If the woman who was a valued member, who had a family and decided she wanted to come back on a part-time basis, then that would be far preferable to me than not having her back at all. I would understand the reason why she was back because she'd made a career choice to trying to keep a balance between family and career. It's up to everybody to achieve that balance" (*UK-A male middle manager*)

This same manager was using his own circumstances to justify his position in taking that more progressive view.

"My wife works part-time, the reason she doesn't want a full-time job is because of the family. And it would be a bit hypocritical of me if I didn't offer that opportunity. The same goes if a man was in that situation as well." (*UK-A male middle manager*)

The implications for those who would have to do additional work to cover for the person on leave or reduced hours was also mentioned.

"In a larger company, that problem is less, you have a lot of people to sort it. It is a planning question. So it is not a big problem." (*Swed-C male senior manager*)

#### **6.5.11 Strategies for Getting Balance**

Getting balance was difficult, but there was a strong view by many of the sample that people had to make choices about the terms of commitment, and accept the consequences. Many of the interviewees talked of the need to get a balance between work and family, task delivery and having concern for people at work.

"I think there might be a difference, in that for me commitment is the whole thing, and everything has to work, job, family, and at work, it is not just the technical issues that have to work. I also have to have good relationships with the people I work with. But I have not really felt that women take work less seriously." (*Swed-B female middle manager*)

The choices would be different for each individual. For instance, individuals in dual career relationships would be most likely to have to seek accommodation of career commitment with their partner, who might be just as determined to show the required level of high commitment for their own career, with consequences for the couple's life together. For those with children, the situation would depend on whether the engineer was the partner with the primary child care.

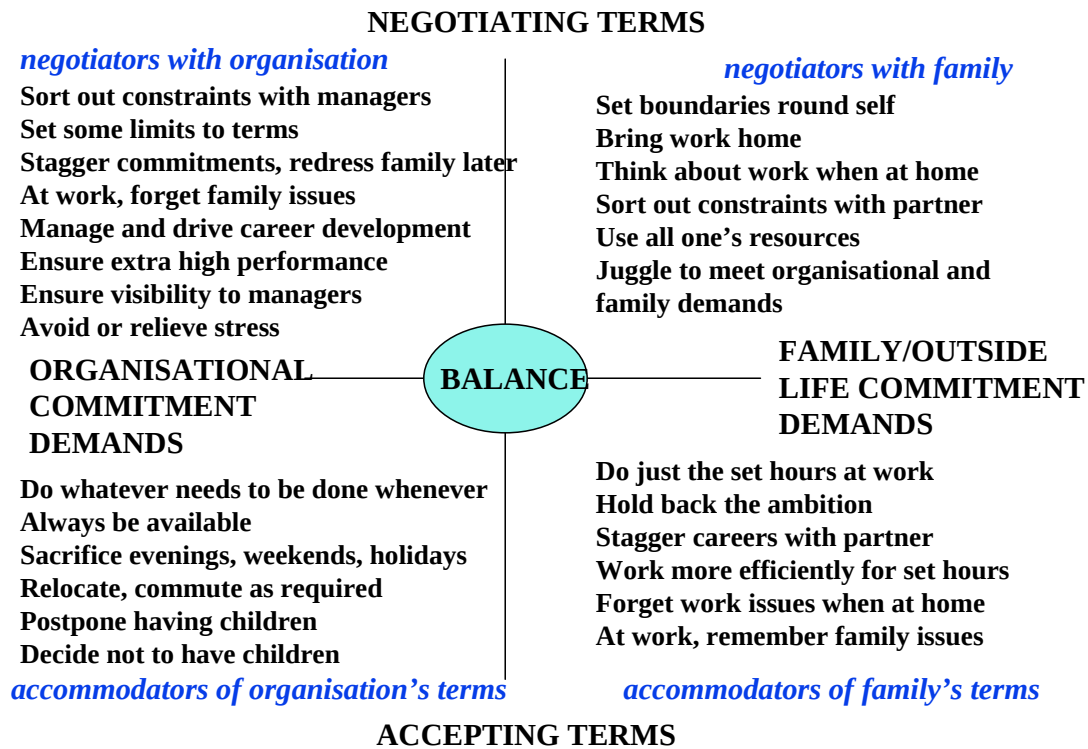


**Figure 6.13 Achieving Work/NonWork Balance – The Strategies**

The strategies which the sample said they used to get a balance are shown in Figure 6.13. These have been grouped to show four styles of coping with conflicting demands, based on the results reported in this section. The individuals can be grouped as negotiators, who actively seek to control the terms of their commitments, negotiating either mainly with the organisation, or mainly with their family to a mutually acceptable set of terms.

The other group are the accommodators, who would either go along with the demands of the organisation, whatever the sacrifice, or alternatively, put the commitment to the family first. Figure 6.14 indicates which people were in the four categories, by parent status, whilst Figure 6.15 gives the people by managerial level. There is overlap in this grouping. Some interviewees said that they used several strategies, listed in other quadrants in the figure. They were placed in what appeared to be the most appropriate category according to their overall responses. Half the Swedish males were negotiators with the family,

whilst three of the four young single Swedish engineers were acceptors of the organisation's terms.

These strategies can be seen in context with those reported in Kirchmeyer (1993, p.523) based on Hall (1972), which were:

- \* structural role redefinition ("a proactive attempt to deal with the objective reality of one's roles by reducing the role demands and changing others' expectations");
- \* personal role redefinition ("a more defensive approach where conflicts are reduced through changing one's personal attitudes and behaviors as opposed to altering role demands");
- \* reactive role behaviour ("involves no attempt to address conflict but rather, the individual strives to improve his or her ability to satisfy all demands").

The strategies used in this study can be sorted under Kirchmeyer's categories as follows in Table 6.4. However, the fit is not as good as that shown in Figure 6.13.

**Table 6.4: Strategies to deal with Tensions, using Kirchmeyer's categories.**

| <b>Structural role redefinition</b>        | <b>Personal role redefinition</b>    | <b>Reactive role behaviour</b>        |
|--------------------------------------------|--------------------------------------|---------------------------------------|
| Sort out constraints with managers         | Set some limits to terms at work     | Ensure extra high performance         |
| Stagger commitments, redress balance later | At work, forget family issues        | Bring work home                       |
| Manage and drive career development        | Set boundaries around self           | Think about work when at home         |
| Ensure visibility to managers              | Sort out constraints with partner    | Hold back the ambition                |
| Use all one's resources                    | Juggle to meet work & family demands | Work more efficiently for set hours   |
| Avoid or relieve stress                    | Do just the set hours at work        | At work, remember family issues       |
|                                            | Stagger careers with partner         | Do whatever needs to be done whenever |
|                                            | Forget work when at home             | Always be available                   |
|                                            | Postpone having children             | Relocate, commute as required         |
|                                            | Decide not to have children          |                                       |

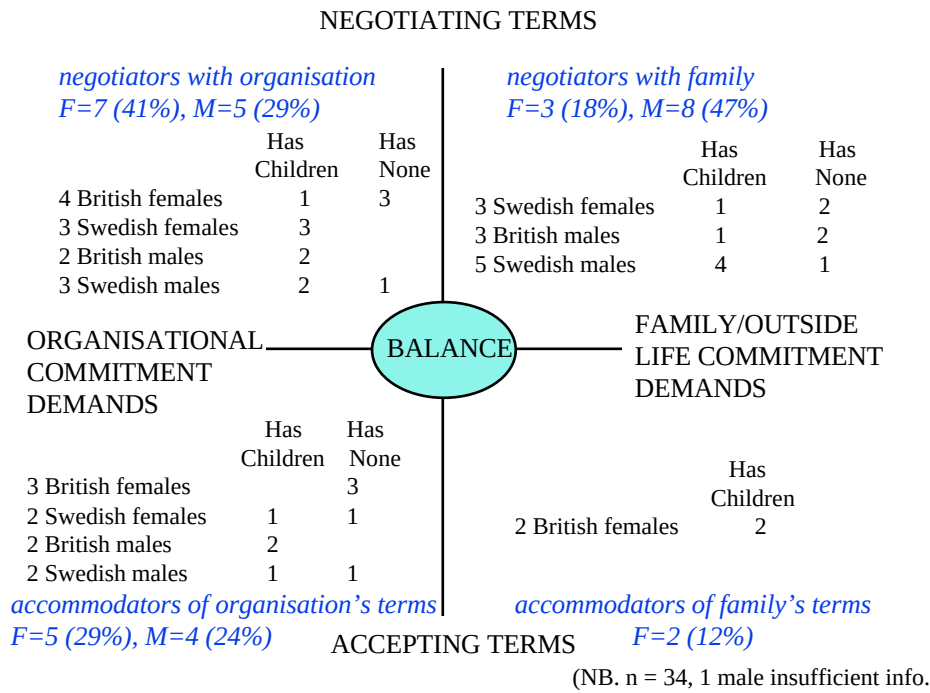


**Figure 6.14 Achieving Work/Nonwork Balance – The Individuals by Gender & Parent Status**

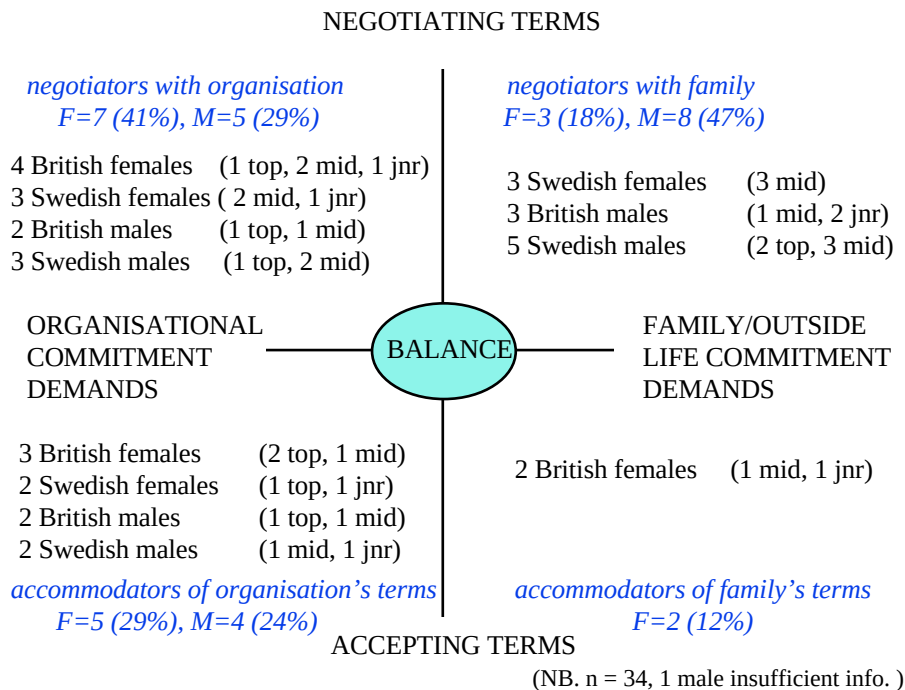


**Figure 6.15 Achieving Work/Nonwork Balance – The Individuals by Gender & Managerial Level**

Of the female engineers in this study, five could be seen as accommodators, whilst seven were negotiators with the organisation. Only two women, both British with young children, were in the acceptors of the family's terms category. One was extremely ambitious, and felt that she was now plateaued because of her children, but was desperately keen to revive a promising career as soon as possible, and did not feel that she should be so strongly penalised for being part-time for a few years. However, her husband's career was more important to them as a family, and so she had accepted her situation. The other woman had set her limits, accepted that she was not going any higher just now, and would not seek progression into the middle management tier until later in life, if at all, but nonetheless remained passionately committed to her company. Both women had actually negotiated with their employer for reduced hours, but otherwise they fitted the accommodators of family's terms category. Again, both of these women were intensely committed to their company and work, belying the myth of women's lesser commitment, although acknowledging a career period of less availability at short notice.

The original aim of this thesis was to throw light on why women still have their commitment challenged at work whilst men's commitment is taken as given. These results indicate that most of these women's commitment to the organisation was so strong that they would do all they could to deliver what was needed, putting their work needs first wherever possible. More women overall (70% compared to 53% of the males) seemed to be putting the organisation's demands above their own. It is acknowledged that there could be bias in their responses due to social desirability or perceived acceptability of answers, to a female researcher coming in with an introduction from senior management, despite the depth and openness of the interviews.

#### **6.5.12 Role Conflict and Resolution**

These responses on the competing demands of work and family reflect the views of Marks (1977) who said that highly committed people would make choices about how they would deal with competing role demands for their energy and time, and that they would negotiate with role partners to gain an acceptable solution. Marks had talked about the two competing approaches to commitment and role conflict – the scarcity model and the expansion model. Marks's view was that the expansion model was more appropriate, as there was conflicting evidence for the scarcity model. The following comments in Table 6.5 indicate support for both models, some engineers taking the view that commitment was a resource which could be fully expended, whilst others felt that it would grow as needed for a number of commitments.

**Table 6.5 Evidence of Marks (1977) Expansion Model of Human Energy, Time and Commitment**

| SCARCITY MODEL                                                                                                                                                                                                                                                                                                                              | EXPANSION MODEL                                                                                                                                                                                                                                                                          | BOTH                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| There are lots of things I like to do but there are only a certain number now - it may be time, but I don't think it is, because there is a certain degree of somehow an energy pool beyond which one can't go. ( <i>British female</i> )                                                                                                   | It's flexible. You can be committed to any number of things, I think. You maybe show it in a different way. ( <i>British female</i> )                                                                                                                                                    | Sometimes it is too much, and usually you could give more. Usually it grows till the jar is full (big laugh). And then I say, I can't take any more now, so I work from that. And then it gets lower till I take on some more. ( <i>Swedish male</i> )                                                                                                                                     |
| We had this question in the first hour of training. What do we actually - more or less how our lives looked. And I must say, it was like 100% job for me. And I kind of just realised that, and talked about it a lot afterwards, I mean I have a wife and three kids, and it wasn't even one little spot, at work. ( <i>Swedish male</i> ) | I think that the commitment I have in me, that is following me 24 hours round, I am not going to work and well, suddenly I have commitment. I am interested in whatever I do, I'll do it with commitment. ( <i>Swedish female</i> )                                                      | Where they have to do, they suddenly find they can do. So in actual fact, it can grow,. But it's like - and here comes an engineer or a mathematician! - there's some peak it can't get past, simply because there isn't enough time to actually go past it. ( <i>British female</i> )                                                                                                     |
| [Some of the engineers I have talked to have said, well, you have 60% commitment to your work and 40% to your home.] Well, of course, they are engineers. I'm surprised that it was rounded to 60:40! (Laughter) It could have been to three decimal places! ( <i>British female</i> )                                                      | I'm sure it varies with how you feel and how you feel you're being treated as well. If you feel the company, your relationship with your job is a partnership, and what you put in, you get back, how much the thing grows. And I think your commitment grows. ( <i>British female</i> ) | You can't be committed to everything, can you. You probably find that there is a standard amount, but then there's a margin above, a tolerance, an engineering word there. So yes, if you have more than one big job on in your life, you are obviously going to be committed to more things. But if nothing's happening, then your commitment goes down generally ( <i>British male</i> ) |

## **6.6 CONCLUSION TO CHAPTER SIX**

Before moving to the third chapter of findings from this doctoral study, the contribution made by this chapter should be clarified.

### **6.6.1 The Ratings and the Tensions on certain Component Meanings**

The sample's ratings of their meanings of commitment have been reviewed, for both their own and their perceived organisational rating of importance of the 36 sub-components elicited in the interviews, from which a number of tensions have been identified. Five key tensions were found:

- \* **hours over the norm**
- \* **enjoying work**
- \* **having concern for people**
- \* **thinking of oneself as well as the organisation**
- \* **getting a work/nonwork balance.**

Gender differences, managerial level differences and national (British and Swedish) differences in the degree of tension have been identified, but overall, the tensions were over the same issues across the sample. These ratings provide triangulation of the interview data analysis reported in Chapter Five.

### **6.6.2 The Career Anchors of the Sample**

A strong desire has been found in most of these managers for balance in their work and outside work relationships, through identification of their life style anchor, and their other anchors of technical/functional competence, pure challenge and general managerial competence. The motivations behind these anchors have been related to comments made by participants about their commitment relationship with their organisation.

### **6.6.3 The Strategies for dealing with the Tensions**

The chapter has reviewed the strategies which the sample said they used to manage the tensions identified earlier, especially on "hours over the norm", and "getting a balance" between work and outside work lives. Rather than using the Kirchmeyer (1993) classification, the strategies were grouped into four sets, negotiators with the company, negotiators with the family, accommodators of the company terms, and accommodators of the family terms. Subjects were allocated to one of the four sets, based on their interview data. The resulting Figure 6.14 demonstrates that many were actively negotiating to get a balance at work and at home, but that most of the women said they were putting their organisation's needs ahead of their own, signifying that these women were highly committed to their organisation.

### **6.6.4 Summing Up the Chapter**

Figure 6.16 maps out the findings of this chapter. Chapter Five reported the meanings of commitment given by the sample in the interviews. This chapter has

considered how the tensions identified in the meanings are related to the way in which the terms of commitment are dealt with by these managers, who are both assessors and assessees of commitment.

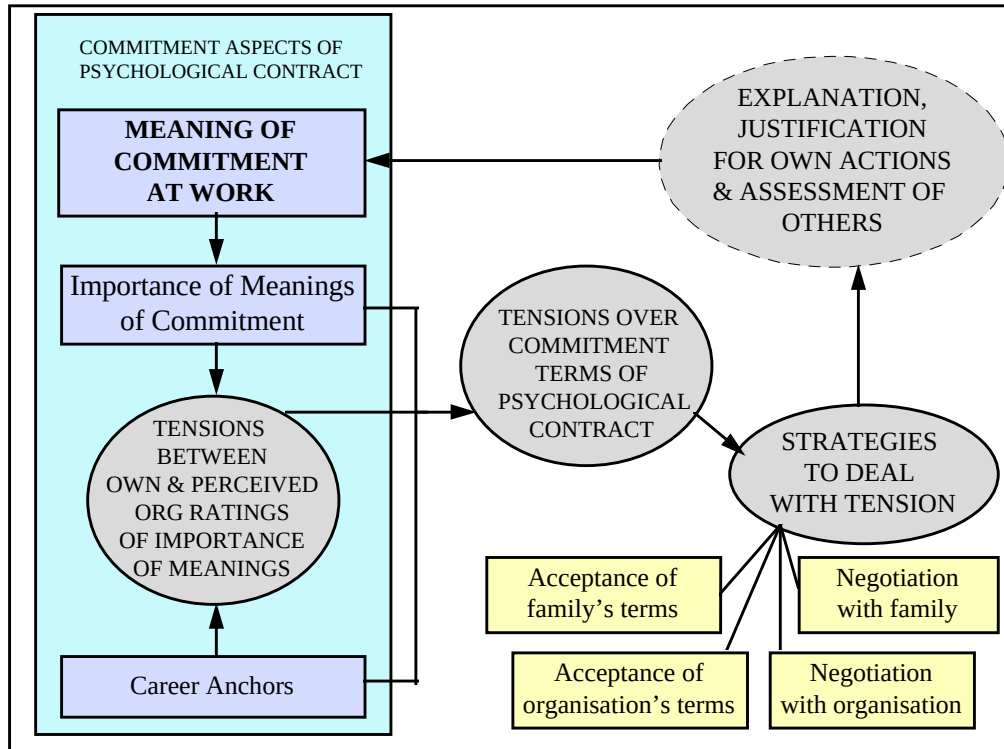


**Figure 6.16 Model of the Impact of Commitment Tensions in the Psychological Contract on the Meaning of Commitment as a Process**

From the evidence in this chapter, there is a clear indication that the psychological contract based on the meaning of commitment held by these managers is moving away from passive acceptance of the employer's terms. Whilst recognising total commitment in senior role models, many individuals in this sample at all levels have said that they seek to balance their commitment relationships in a different way. Their actions, and acceptance or negotiation of the terms of their psychological contract with the organisation, are likely to provide explanation and justification for their meanings of commitment. This will then form the basis upon which they will assess commitment of those below them, completing the meanings feedback loop in Figure 3.2. Next, in Chapter Seven, the thesis will review the way in which commitment was said to be signalled, observed, assessed and rewarded, and consider whether any further light can be shown on the original issue as to why women managers are still often perceived and reported to be less committed at work.



## CHAPTER Seven: ASSESSMENT OF COMMITMENT

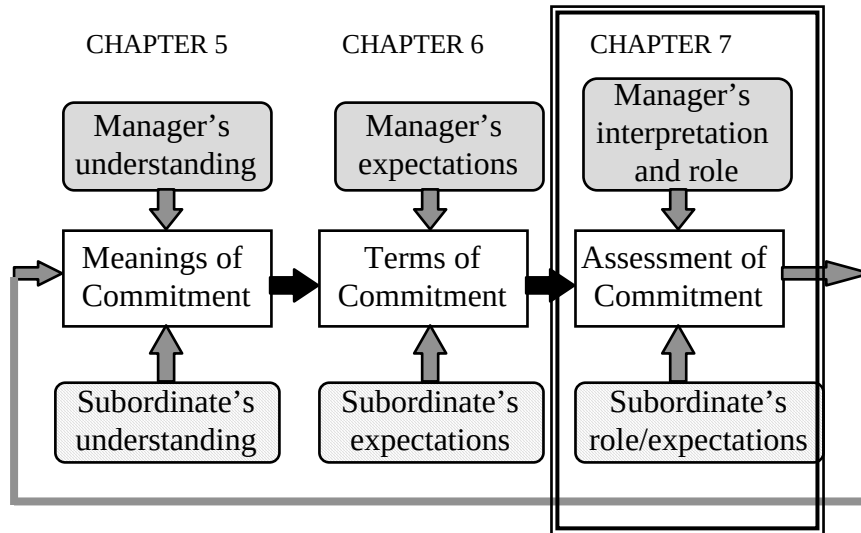


Figure 7: Chapter Seven Findings Map

## 7.1 INTRODUCTION TO CHAPTER SEVEN

This study seeks to investigate why women managers in engineering organisations are so often perceived to be less committed than their male peers. This investigation requires an understanding of what men and women managers mean by the term “commitment” at work, and then how those meanings are used as evidence in the signalling and evaluation of commitment. The Jary & Jary (1991) definition of meaning is being used again here: the comprehension of social actors (their beliefs, motivations and purposes) which explain their social actions in a social event, in turn reinforcing those beliefs and motivations. The **meanings** were established in Chapter Five, and the **social context** in Chapter Six. The thesis now moves to review the **social occurrences or actions** using those meanings, by individuals (who are usually both managers and subordinates) in the assessment of commitment. Figure 7 maps out the position of this chapter in relation to Chapters Five and Six.

A summary of the engineering managers' 36 meanings of commitment is given in Table 7.1, as they were categorised in the coding framework after reference to the literature definitions of commitment. This chapter uses gender differences as the main horizontal strand of interest across the vertical themes emerging about the assessment of commitment. As respondents were almost all in positions where they were now (or had been) both assessors and assesseees of

commitment, it was felt that managerial level would not have a major impact on responses. However, where relevant, such differences are addressed in this chapter.

**Table 7.1: Summary of Meanings of Commitment given by Interviewees, as categorised in the final Nudist framework**

|                                                                                     |
|-------------------------------------------------------------------------------------|
| <b>Continuance Commitment</b>                                                       |
| Dedication, loyalty, want to stay in organisation                                   |
| <b>Affective Commitment</b>                                                         |
| <b>Identification</b>                                                               |
| give information, holistic view, identify with organisation, involvement            |
| judgement, pride, want to contribute                                                |
| <b>Effort</b>                                                                       |
| availability, do best for organisation, enthusiasm, find solutions, hours over norm |
| preparation, be proactive and effort, put self out for organisation, quality,       |
| task and objective delivery                                                         |
| <b>Normative Commitment</b>                                                         |
| control by organisation, duty, be fair, be realistic, responsibility, trust         |
| <b>Career Commitment</b>                                                            |
| add value, business and customer orientation, creativity and innovation,            |
| professionalism, ready for challenge, keep technically updated, want to succeed     |
| <b>Personal Commitment</b>                                                          |
| enjoy work, get balance, be people-concerned, think of self as well as              |
| organisation                                                                        |

First, in Section 7.2, the responses to the Commitment Signalling Process diagram with its gender overlay are reviewed. This was the interview tool which led into the more sensitive discussion about attitudes to women and their commitment in comparison to their male peers. That model provided a reliability check in that it confirmed respondents' agreement with the outline mapping of the commitment signalling process. Section 7.3 considers attitudes to the roles of women at work, and Section 7.4 goes on to review the attitudes towards parental leave. From the responses indicating attitudes towards the commitment of women, a model is drawn up indicating the position of the three companies in terms of norms for managers taking parental leave breaks, and the viewing of such breaks as a woman's problem due to lesser commitment, rather than an organisational planning issue. These elicited attitudes set the scene for the assessment of commitment, as such attitudes will underpin explanations and justifications for assessment outcomes.

Next, Section 7.5 indicates that a notable feature of the commitment assessment process is not just the intangible nature of the evidence, but the dimension of tacitness of the commitment evaluation. The ways in which commitment may be measured and assessed are then drawn out from the interview data in Section 7.6.

Then, in Section 7.7, the perceived role of the manager in this commitment assessment process is examined, as commitment is signalled by the subordinate to the manager. Note that these managers are in a chain of commitment assessment themselves, under the influence of their corporate and national cultures. (See Figure 7.1)

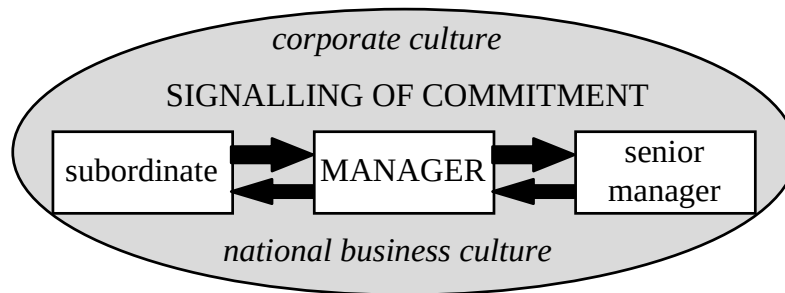


**Figure 7.1 The Commitment Signalling Chain**

Next, in Section 7.8, the way in which some individuals use impression management to signal their commitment is explored. Section 7.9 then reviews the outcomes of commitment assessment given by the interviewees. Finally, the chapter concludes in Section 7.10 with a table of the commitment assessment process dimensions elicited and a summary of the key findings.

## 7.2 REACTIONS TO SIGNALLING MODEL

### 7.2.1 Agreement with lens model

In order to facilitate a discussion of the commitment assessment process and gender issues, a 2-layer model was shown to the subjects which described the signalling process. The main model mapped out the signalling between manager and subordinate, under the influence of the organisational culture and structure, indicated as a lens through which the signals passed. After an explanation of the model and discussion about the process, the second layer was introduced, identifying the manager as male, and the engineer as female. The influence of their respective family/personal backgrounds was also inserted into the model through the overlay. The interviewees were then asked to discuss the impact of gender on the signalling process, and to comment on their views of attitudes to women engineers as managers, and on attitudes towards those seeking parental leave, career breaks and part-time work. Figure 7.2 shows the model, with the overlay as dotted elements.

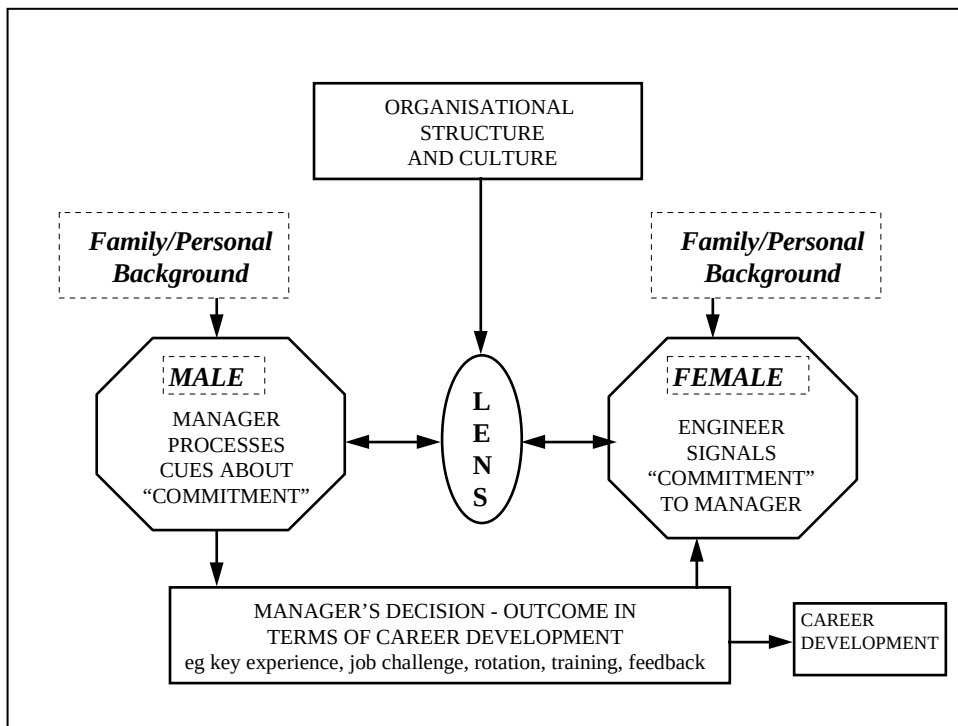


**Figure 7.2 The Commitment Signalling Process Model, with Gender Overlay.**

Twenty-three of the 35 interviewees agreed that the model was a good representation of what went on, with the gender overlay.

“Yes, that is quite good actually, yes. That sums it up well.” (*UK-A male middle manager*)

“Well yes, I think this axis, as we said before about faking it or whatever, things are taken as cues, and they are interpreted through the lens of the organisation’s culture, or within the environment of the organisation’s culture. And commitment is one of the things we take into account.” (*UK-A male middle manager*)

“Yes, especially when you put it for the male and female.” (*Swed-C female senior manager*)

“Yes, I think there is much in the thing that you are saying. I think it is very much the way it might be. I don’t know what I could add to it.” (*Swed-C male senior specialist*)

Some of the British engineers, especially males who did not agree with the gender-specific model, commented that the model with the overlay would apply not just for females being assessed, but also for men with family responsibilities which impacted their availability, and for those from an ethnic minority.

“We could draw the same, rather than man and woman, we could put Asian and European in there, or Afro-Caribbean. Because the culture here is so very traditional, because we are all white middle class middle aged men in here, and we’ve not been exposed to any kind of minority.” (*UK-A male middle manager*)

### **7.2.2 Age-related male attitudes to women in management**

Five males said that the age of the commitment assessor would be likely to be a factor, and that this was a decreasing factor in their companies.

“Yes, I think you are right, it all comes down really to how this person perceives a woman. I mean, generation gaps and experience can be very different, depending who you had there. Personally I don’t think it would make too much difference if it were myself, but I could see others being different.” (*UK-A male junior manager*)

“I agree with that. Really, because the older males grew up in a different society where the woman more often was at home, taking care of the kids, and perhaps they wouldn’t consider the woman as an engineer. I think it is easier for women if some more women come into the organisation as managers, then people see them daily.” (*Swed-B male middle manager*)

“I think that was very clear at least one generation ago. Things are changing now. ... Personally, I think it is very hard to find any reason to try to keep out or block women, I cannot see any reason for that. .. It is a matter of generation.” (*Swed-C male senior manager*)

These views that older managers tend to have more gender-stereotyped attitudes are similar to those found by Liff, Worrall & Cooper (1997), where half of the male managers aged 60+ felt that women should not be trying to combine management careers and family responsibilities. In this present study, a senior

Swedish woman confirmed that there had been a change, although she indicated that her own older status may have had something to do with it.

“It is better nowadays. But 10 years ago or more, they looked at me, and said. where is the man. But now I am old and I can tell them. (laughter)  
(*Swed-C female senior manager*)

### **7.2.3 Influence of family background on male attitudes**

Nine engineers said that they felt that men with experience of wives or daughters as professionals would have a much better understanding of the issues concerning commitment for ambitious women engineers who wanted to combine careers with motherhood. This fits with evidence from a study by Ragins, Townsend & Mattis (1998) on Fortune 1000 CEOs’ attitudes to women as top managers, where several CEOs had their consciousness of gender barriers raised by their own daughters’ career aspirations. A doctoral study in the US (Daniels, 1988) also found, using scenario studies, that where male managers had wives or daughters in atypical career roles, they were much more likely, compared to other male managers, to recommend promotion for a woman engineer.

“Quite a number of the people I interact with at senior levels have got daughters who’ve been to university and have careers, and are very career-oriented, and I do think that helps. They have a calibration which says, No, this isn’t strange, women are committed to their work. It’s almost like a reverse role model. They use their daughters as a kind of “that’s normal, my daughter wants to do this.” It’s a family calibration, yes.”(*UK-A female director*)

“I think the influences are there. You can’t help but take into account your own experiences. Like I know the situation that my wife’s in. I also know the situation that a lot of her friends are in, and a lot of her friends tend to be professional, and quite a number have gone back into full-time careers. And quite a number have achieved the sort of balance that my wife’s achieving, so it’s a whole cross-section. It would be impossible not to have your own views on it. But at the same time, you have to try to be objective. And whilst your own views are there, you have to recognise that different people come to different decisions for different reasons. And it’s up to the individual. And so you need to consciously try and park it, even though it is there. A conscious effort is required, to just use it as background information, and not let it influence the decision.” (*UK-A male middle manager*)

Similar experiences were mentioned by the Swedes.

“Yes, I agree. Because a lot of the managers here, they are quite young. I would say quite a few of them have small kids, more than one kid. And also I think at least a few of those I know really take part in staying at home, taking care of the kids, and there is a split at home also. Most of the people would not take away that lens, but make it very small.” (*Swed-B male middle manager*)

“You know, the welding engineer I talked about, he was okay to work with, but he drastically improved when his daughter went into technical university. And also one other, he was also a lot better to work with when his daughter started at the same university I went to”. (*Swed-B female middle manager*)

However, one British woman felt that the male managers might have negative experiences which would influence their attitudes just as much, especially if a wife had to give up work because she couldn't manage her family and career.

"This is the biggest thing, the family and experience of the male manager. Because the younger men are probably, they probably have a better, more equal view of men and women just because of the way that they have grown up. And that is based on their personal experience. But also, for example, if a man has a wife who is a working mother, then he doesn't have a stereotypical view – well, I suppose it could work either way. He may have had experience that the woman can cope, and that this shouldn't be held against them. But then again, I have had it the other way, where a man has assumed it is going to be impossible because his wife had found it so hard and given up. So it can work either way! But I think that is the biggest influence, the manager's background box. So I think it has a big effect." (UK-A female middle manager)

This is an interesting contrast to the usual view that men with professional wives would be sympathetic to a woman seeking to combine career and motherhood, and no literature has been found which reports such an opposite view.

#### **7.2.4 Disagreement with the model**

Not everyone agreed wholly with the model with the gender overlay. One younger engineer commented on her manager who had sons but no daughters, who was very supportive even though he had no family background of experience with career women. Another felt that managers would only view women engineers as women first for a very short period.

"I know my manager is very fair towards women. I genuinely feel that he sees you as an engineer first." (UK-A female senior technologist)

"I think you are seen as a woman first, only initially, and nobody knows anything about your commitment at that particular point in time, or your competence. That has to be developed over a period of time. After that period of time, sufficient to show that you're competent, committed, gone through the training courses or whatever it takes, then you're a person." (UK-A female senior technologist)

Another middle manager agreed in general with the model, but commented that her manager, who was very open to women coming into management, had a wife and daughter who were not highly educated, yet he was very supportive, so it obviously depended on individuals. Others felt the same way, that it depended on the people involved, and that engineers could go and do something about it, if they were not happy.

"So it all comes from the person actually going and talking to the manager, and actually saying, I do want to get on in the company. I enjoy what I do. I feel I've got a lot to give the company. And the manager will see that, and the way that they work, and listening to them why that person wants to move, and then trying to do their best as a manager to get the opportunities for them. So a lot of it is up to the initiative of the person, be it a man or a woman." (UK-A female middle manager)

A UK-A middle manager found it difficult to agree that men and women would be perceived to be differently committed, despite having earlier said that she felt she had had to push more than male colleagues to get on.

“Nowadays, I think the signalling would be – I find it very hard to think that a woman would have to signal differently to a man. [Interviewer: But you were saying that you felt you had to do that bit extra.] That bit extra to get the job done, or to, I guess, push myself. Whereas if I'd been a bloke, maybe they would have assumed I wanted to get on. If I'd been a bloke, I would have thought, I do want to get on, but I still would have gone and talked to somebody. Maybe as a woman, you just have to make it that bit more obvious.” (*UK-A female middle manager*)

A senior UK-A male manager disagreed about the manager's personal background and influence on the commitment assessment process. However, he agreed with the model without the overlay.

“At a personal level, my family and daughters has absolutely no relevance to what I am seeing through this lens, as you call it. There is no relevance there to any decision here as to what is coming through this lens. It is not a factor.” (*UK-A male senior manager*)

Another senior UK-A male manager felt that the model was wrong in that, in his view, managers were not taking gendered perspectives.

“I don't believe folks are primarily polarised according to men or women, when measuring commitment. Now there's a lot of people in the organisation, and therefore I would be exceedingly naïve, in fact I would be wrong on a sheer statistical basis if I said that there's never been anybody who's been influenced in this way in terms of taking their decisions based on bigoted or prejudiced judgements about the sex of an individual. But in general, the opportunities for matching an individual to the job when filling vacancies are not fluid, and we are not spoilt for choice. And almost invariably, we will be driven to choose the best person for the job. ... It's much more about finding the best individual to do the job that you've got. Now you could say that that doesn't wipe out the female angle, because you could still include a plus and a minus evaluation against a female engineer alongside a man. ... I don't believe there are many individuals around who would start with a polarisation that says like this lens that the female is less committed than the male.” (*UK-A male senior manager*)

The gender overlay was not presented as having to have an influence, or being right or wrong, but was included to stimulate debate over the possibility of a gendered process, given that this is a very sensitive subject which might not have been easily explored. It has to be acknowledged that there was some defensiveness on the part of some male managers, and this will have impacted their responses.



### 7.3 ATTITUDES TO WOMEN'S COMMITMENT AND ROLES AT WORK

In the discussions about the lens model and the attitudes of managers to the commitment of women engineers, the respondents began to expand on their attitudes to women managers and their commitment at work, and these seemed to be focused around several roles. These will be discussed in turn.

#### 7.3.1 The Social Role of Women in Management

Several women talked about the difficulties which men had in dealing with professional women, although there were so few women at the top that many men (even in this sample) had not worked directly with senior women (Asplund, 1988). One talked of males going through a polite dinner-party style conversation before getting down to business, and having to break through the barriers.

“When I arrived here, there were loads of men who'd never worked in a senior managers' briefing or a senior management meeting which had a woman there. And the same thing happened the first time I got promoted to middle management. The men round you, it's not a problem for you, it's a problem for them. They don't know how to treat you. Their only image of a woman is the image they have from their wives and their social activities, they haven't got an image of women in work. And therefore they start off trying to treat you like as if you're a woman they've met on a social dinner scene, that you have to be polite and you can't argue with them. I've seen it every time when I've moved from where I was, into a world where I was the first woman who was working in it at that sort of level. In six months, you've knocked it all down.” (UK-A female director)

Change was happening, but it was slow, and successful women were still treated as different, rather like the pioneer women described by Kanter (1977).

“It's just starting almost to come out of the era where those men in power did not see any women role models. The wives were generally not professionals, their daughters generally weren't professionals, so they're still under that social condition of “well you're a bit of an oddball really, and not sure how to deal with you, how to treat you, or how to help you through the career structure.” So hopefully we've turned that sort of change, but there is still an awful lot of social conditioning there.” (UK-A female middle manager)

Sometimes it was problems with male attitudes towards women who showed assertion. However, it was acknowledged by women in the sample that men would face a similar “quick summing up” of their background when meeting someone new, but that women faced the double hurdle of interacting with males who viewed assertion as aggression, especially where the males were not used to females taking such a role.

“I think initially the first signal that is given is that you are female, most men tend to notice that. ... And I think that if you took that first four minutes or whatever, there will already almost be a preconceived idea as to who you are, what you are, and what is your background. I think its exactly the same for a man.... .How they perceive you is primarily due to the background experience [of the male manager]. If a woman came in and was reasonably assertive, then they would probably just say, Yes, this woman's alright. If

they are used to women deferring to them, then they've got some stropky woman on their hands." (*UK female middle manager*)

"I think I'm conscious of my behaviour. If I wanted to be assertive, I think men see you as being aggressive, so you try and tone it down, because they are conscious of that all the time." (*UK female middle manager*)

This male attitude can be seen as a defence mechanism by men to maintain their dominance over women who try to get through the socially constructed barriers by adopting male managerial styles (Cockburn, 1991). One of the women directors said that "you'll find we (the top women) are more like a bunch of Mrs Thatchers", implying that they had successfully negotiated the hurdles using more authority than would be typical of women managers. One of the younger British males commented that his female peers who were so successful did not behave like women who wore Laura Ashley!

In the Swedish sample as well, comments were made that there were still so few women in management around that males did not have much experience of seeing them in more senior roles.

"The problem for some of the upper management, the only women they see are the secretaries and their wives at home, so then it is difficult, if they don't have an engineering wife, they don't really see a lot of female engineers. Sometimes it's like they don't even think about the option [of women being promoted]." (*Swed-B female middle manager*)

### **7.3.2 The Career Woman Role**

Only five of the women said that they had personally had experience of gender stereotyping, in contrast to Wahl's (1992) study of women engineers in Sweden where half her sample had experienced direct discrimination, and almost all said they were treated differently to men at work. One senior British female felt that assumptions might still be made by males which would hinder women's careers, by less investment in women's career development as they might leave the company because of family commitments.

"I think there is a risk of it, of a married woman in her mid/late twenties, might lose out against a married man of a similar age, because they'd assume, might assume that there's a likelihood they'd leave because of their family, I think that's the biggest area. .. You get over it, I suppose, by training your line managers not to do it. And I guess, hopefully, things like the Sex Discrimination Act might at least help in that it might cure that sort of behaviour from some line managers." (*UK-A female director*)

This woman had such an experience earlier in her career.

"I remember I went on a management course, the first management course I went on when I was a section leader. I'd just been appointed, I was about 26, something like that, the first level of a supervisory position. I was over at another part of UK-A then, and I went on this management course on HRM. And one of the other guys on the course said in my hearing to somebody else, "I can't understand what she's doing here, I mean, she'll leave in the next two years". And you do get that sort of attitude amongst individuals."

It was felt by some of the women that there were these residual attitudes towards women in roles traditionally held by males.

[Men would think:] "Should we as a company, if we're looking for key people, should we put women into that role? I think there's probably a psychological and conscious and unconscious part to that decision, because consciously, they'll be saying there's no reason why we shouldn't. And there's an unconscious part that's telling them, I can't see them in that role. Somebody used those words to me." (*UK-A female middle manager*)

Dealing with the perceived discrimination was difficult, and better achieved by confidence in oneself than in getting angry about it. Such an attitude reflects again the findings of Wahl (1992) that the Swedish women engineers used a strategy of acceptance of discrimination as normal, together with an appreciation of their special position in the organisation as highly visible women engineers.

"The thing that makes it easier for me, is that you have to be the one you are. Then you have to accept sometimes that men discuss you in what you think are discriminating ways, because you can't change them by telling them at that moment that this is not the best way, that what you are saying now is not good for me. So you have to accept it – by being angry and being always saying, oh this is not good, and oh, they are not doing it for both men and women, that doesn't help." (*Swed-C female middle manager*)

One male felt that women were not as good engineers as men, attributing this to their gendered upbringing to play quietly and neatly, for example, in comparison to boys who played with construction kits to build models, moving on to help their fathers repair bicycles and eventually cars, and gaining a real understanding of technology. This would lead boys into studying engineering.

"I don't think on the whole, for reasons of upbringing, that the very best women engineers are as good as the very best men engineers. Now I suppose, part of that is the statistics, in that out of the hundreds, of the population in the country, the hundreds I'm thinking of, I might have missed the one who would be the woman. But because of that, I think they do tend to take up administrative posts relatively speaking earlier than the men." (*UK-A male middle manager*)

This is similar to the findings of McIlwee & Robinson (1992) in a US study of women engineers. Also Devine (1992) found that UK male engineering managers justified their partiality to promoting men because "men were technically more competent than women". In contrast, a 30-year old male felt that the women engineers of his generation were really committed and competent, and were succeeding. Their progress was making his male colleagues envious of their success, but he felt that the women deserved it because of the obstacles they had overcome to get where they were now.

"I don't know if this is general, but the women who started with me are perhaps more proactive and committed to engineering than the majority of the blokes, the men who started. Because the odds were against them from Day 1, so they had made their decision that engineering was their career, and I think that's probably a fair thing. So whilst we do say, oh they're getting all the good jobs, I think they are committed so they will get those jobs. [*And are they are pushing their own careers in the same way as the ambitious*]

men?] Yes. I think that's right, and because there are a lot more men and fewer women, they just stand out more. (Laugh) And when they all get good jobs, it looks bad. But yes. I think it's maybe that they are in a man's world. If they get this far, they've obviously decided they are committed, and are committed to this work, so yes." (UK-A male junior manager)

That individual's view of the women as competent and committed engineering managers is echoed by one of the male directors.

"And maybe that is because I've known good women, all the ones you've met. And particularly, as I've come up through the company with them." (UK-A male director)

One of the older males in Swed-C said that he noticed that the younger males had no problems with seeing women do well, but that he would judge a woman harder than he would a man. He could not really explain why, but he responded thus several times.

"The younger men have been in universities with the women and so forth, and they are more adjusted to have women in the class and nearby in the same job or with the same skill, seeing them doing well and fail, like the rest of them. So it might be easier for them. I would say, from my point of view, it should be very interesting to have it like that. I would look forward to it but of course, it has to be someone who has the skill. I might judge her harder than a man, I might do that. [Why would you do that?] That's a good question. There is no good reason for that. Not at all. [So you would be more critical?] Yes, it might well be so. [Is that because you are expecting her not to be as good?] That might be at the bottom of it somewhere, but it is difficult to answer that." (Swed-C male senior specialist)

In Swed-B, there were similar male attitudes according to one female, but the woman's response, like many other females, was to be that little bit better than the males, to counteract any such prejudice. Cockburn (1991) had found that it was difficult for some men to accept that women managers had authority, whether over others or over their specialist subject, and the following quote indicates a similar experience.

"I have noticed since I started in this department, many years ago, that there were men in the company who couldn't accept that I dealt with the specification for different processes. And I have a feeling that they felt, oh little girl, you don't know anything about this. But after a while, they accepted me. And I could feel that as well that now I am accepted. They know what I can do. But also I think that we have a special pressure on ourselves to do, and we have to do a little bit more to prove ourselves." (Swed-B female middle manager).

Some strong indications were revealed of negative male attitudes to women in UK-A a few years ago, where a group of women were trying to see if there was demand for more family friendly policies. However, the respondent made it clear that she had not experienced any such attitudes herself which had a negative impact on her career.

"So I wanted to do a survey to see from all the company employment, down to the very bottom, to see what the views were and I constructed this questionnaire. And there were amazing answers came back. One man who

put his name and telephone number down in a threatening manner, he said My wife has been at home where she should be, looking after my children, and what on earth are you women thinking of! And he says, If you want me to expand on this, ring me. And in this threatening way, We will not have our status quo upset by you women who want your cake and eat it attitude. So we didn't actually get very far, but the company since has brought in this career break idea. But there are, I think, deep-felt feelings amongst some men about having women here. But certainly my own experiences on a working level, amongst colleagues, I haven't had any personal complaints. I've not felt that I've not been given that job, or I've not been considered because I'm a woman. So I think that's good." (UK-A female middle manager)

One UK-A director commented that another form of stereotyping was to push high potential women engineers towards HR jobs, typically seen as more appropriate for female skills. That echoed the words of a male middle manager cited earlier in this section.

"Because someone like me comes out with all these incredibly high teamwork scores, they think, 'ah, teamwork, good at HR'. And I'd hate HR. I hate doing service jobs. I like doing delivery jobs. But it is part of a male perceived view, for some reason, about women, that if they're good as managers, and good at things, that means that they're good at people, so put them in the people jobs. And a lot of women let themselves be driven that way. It's back to saying, you have to fight hard, even once you've got through to junior manager levels. If you actually want to succeed on equal terms with men in the business, you have to fight incredibly hard not to be driven down the wrong management development route." (UK-A female director)

### 7.3.3 The Mother Role

The change in role after a maternity leave was a problem faced by one middle manager, who had her first child in her late thirties. It was as if her work identity was somehow differently perceived now that she was a mother.

"Before I had the children, I was swanning off to the States, swanning off to Japan, was on this committee, that committee. I had time to present papers at conferences. ... It was all there for me. When I had the baby, I had to relinquish all my roles. Somebody else now is the person who goes to conferences, and I never get exposure. If there are meetings in the company now, I never get invited to them on that field. So I definitely feel now, I am still here, I'm just as competent at my job as ever I was, but I'm not being seen in the same light." (UK-A female middle manager)

(Devine (1992) also found that the eventual return to work was difficult, with no clear strategies for dealing with the women's reintegration.) Women with children were seen by one male director as having their work roles bounded by their family roles.

"I think certain people have certain strong views as to whether women with young children, whether they should work or not. I don't have any strong views on that. But obviously it is an influence as to whether or not they have freedom to up and go. Because obviously it depends on their arrangements with their husband."

"I see it anyway, as you start your career, if you are a woman, you have to decide whether or not you are going to have a family. And if you do, then I would suggest that it is extremely difficult to be able to progress. Although if you think of Virginia Bottomley or someone like that, I think she's got children, so it can be done. But I would say, the potential is far reduced. Because that level of commitment can't be there." (*UK-A male director*)

Indeed, the roles were not just bounded, but he felt that it was impossible for a woman engineer to combine a successful senior career with bringing up young children.

"I would say that you have to balance, as I've said before, you have to balance what you want to do, in my view. I don't see how you can have – be a successful mother and also be successful in industry. I don't see that they are – I think they are mutually exclusive." (*UK-A male director*)

Concerns about such stereotyping were expressed by a Swedish woman, that her manager did not make it easier for her to manage life as an ambitious engineer and a mother of a pre-school child.

"Yes, I think this is the way it works, but I can't understand why you can't be a mother and a committed engineer. I can't understand it. I have more or less managed it. It has been very difficult because I didn't get understanding of the problem from my manager. If I had the opportunity or some help from my manager, I could manage it much better. But I am pleased with what I have managed up till now. But it could be easier for me and my family. Even with the specific situation, it is possible to manage, but it doesn't have to be so difficult." (*Swed-B female senior technologist*)

This woman engineer at the brink of a managerial position had left the division within a few months of the interview to join a larger division as a manager.

A senior Swedish male described his views on how women with children talked inappropriately about their families at work. He felt that women as mothers should not bring their motherly concerns to work. It was out of place for such non-work issues, and led to male views that women were less committed. Yet it was fine for males to talk about their children, he said, because they had a different way of talking about them.

"If the women use all social talk during work talking of their children or their diseases and so on, they get interpreted in a way that they are not so committed. And that is the way it is. Because I think women talk more about that than the men are doing. [*So you are talking about your cars, and your football.*] Yes [*And that's all right*]? Yes, and we are talking about our children as well, but from another point of view." (*Swed-C male senior manager*)

This evidence is similar to that reported by McIlwee and Robinson (1992) in their study of women engineers in US aerospace companies. They found that women felt that only male-stereotyped subjects such as computers, fast cars and male sports were acceptable topics during coffee breaks, and hence the women felt that they either had to join in as one of the boys, or be seen as less of a professional engineer in the men's eyes. The Swedish manager in this present

study recognised that his was not a “politically correct” response but stated that he was trying to explain things as he saw them.

## 7.4 PARENTAL LEAVE

### 7.4.1 Maternity and Paternity Leave and Part-time Work

Maternity breaks are a right by law for those with qualifying employment in the UK, but do not have to be taken. Paid breaks in the UK usually last for four months (often extended to six months by employers) for women only, fathers usually being offered a week’s paid compassionate leave by their employers. Scheibl & Dex (1998) stated that 93% of UK men took paternity leave of four days on average, many combining it with holiday leave to bring the average up to 8 days leave. In contrast, in Sweden there is an 18 months paid break which may be taken by either parent, either full-time or part-time equivalent, and there is a right for parents to work part-time (European Commission, 1997).

As perceptions of women’s commitment are strongly linked to career breaks, the male managers’ views on this topic are revealing, given that they would be responsible for the annual performance assessment of any women direct reports. There were responses which indicated that women would be perceived to be less committed when seeking a career break or part-time work.

*[What about when women ask for a career break, or to work part-time?]*  
“Yes, it’s a signal of less work commitment. Because they are obviously placing their family, or whatever reasons are, higher.” (UK-A male junior manager)

Others indicated that part-time women engineers would be judged on their commitment for the hours that they could do, and that there were positive experiences of this.

*[What if they could only put in the normal work hours, and not put in the traditional hours?]* No, their commitment is measured against what they do within the time they’re here, and some of them can achieve more in those regular hours than others do in plus ten per cent. (UK-A male senior manager)

One middle manager expressed his views of the difficulties which career breaks caused, with a woman engineer who had three children in close succession. He commented, as did his male colleague, that even though the Equal Opportunities legislation was now in force, some questions did come into their minds when they were making judgements about women and career breaks and part-time work, which they were not allowed to ask.

“It was a longer break, about 6 months, and then another year back, and another 6 months off, a year back and off again. It was difficult. .. It causes you to want to know what you are going to do with her when she comes back, and you do start thinking, under those circumstances, well, how long is she going to be here? And she’s got three now, is she going to decide that really that’s a full time job in its own right. Yes, it causes you to ask

questions that perhaps you shouldn't be asking." (*UK-A male middle manager*)

"Yes, it would go through your mind. And as you know, we aren't allowed to ask certain questions, but I don't think you can suppress the thoughts, whatever the rules say." (*UK-A male senior manager*)

Another British male with a highly successful, professional wife and young children, took a different attitude, seeing the maternity breaks as temporary and not as leave.

"She has been on maternity leave and come back, and she's about to go on maternity leave a second time, at the end of this month. And she's already booked down to come back, so no, I see it as temporary, not leave as such. It's easy to see how men can interpret it as leaving. I know, I suspect there is a certain amount of that, because most of the men here have part-time or non-working wives, I suspect. But having a wife who actually earns more than I do, and works and is probably more professionally committed than I am, I have my eyes open about this." (*UK-A male junior manager*)

The British social security arrangements do allow for maternity leave, but some of the women felt that it depended very much on the attitude of the managers as to whether there would be a successful reintegration after the pregnancy.

"I've always been in the same job, and I've been kept at the same level, and I've been very fortunate, and in fact, there was some resistance, I have to admit, when I first was pregnant and I asked. I didn't want to come back full time, I felt strongly I wanted to have some time with my children, and I asked for 20 hours at that point, and it took a lot of discussion. It was not received well, not my immediate boss but his boss. And, I think that at that point, I would have had to give up, but they agreed to do a 6-month provisional period. I think it was because my immediate boss was supportive and said that he was happy that the business need, the company need, was not suffering, that allowed it to continue." (*UK-A female middle manager*)

However, some of the women did not think that it was possible to take a maternity break (other than the absolute minimum) because of the technology advancing whilst they were away, and this view was backed by comments made by males as well.

"Now that I don't know. Looking at me personally, if I had a career break of like 6 months, I think I'd get too behind, because the technology I'm in, it's just ever changing. I think if anybody took a career break, it would affect their career, in that the technology is advancing. Even a break of six months, I think, unfortunately, it's just the nature of the industry. ..unpredictable, and if I had children, I don't think it would be a very practical proposition. I don't think I could do the travel. Not because I can't be away, but because you can't tell when you're going to be away. Whereas, I think, just the way society is, when the man's away, it still works." (*UK-A female junior manager*)

There are a lot of jobs for which part-time work would not be appropriate. Fact of life. It is highly technical. I'd encourage women to work part-time, but not women engineers, and not women engineers in positions of responsibility. Nothing against women at all, it's just the applicant for the job



- you know, most of the jobs cannot be filled for just 20 hours a week. (UK-A male senior manager)

This is similar to the attitudes found in ten British engineering companies known for their good practice, where the message for technical women was “you either come back full-time and go up the ladder or you work part-time and stay where you are” (Devine, 1992). The attitudes of managers in the Swedish companies were more accepting of the situation. In Swed-B, one woman reported that having children used to be symbolic of being less committed, but that as there were now more women with children in management positions, it was accepted as normal for women managers to take maternity breaks, and did not reflect less commitment.

“Maybe it did some years ago when there were less women here. Now there have been several women who have had kids.” (Swed-B female middle manager)

However, another woman indicated the tension between pregnancy as a symbol of less “commitment” although she retracted from her first response. A male from the same company had similar uncertainty, based on the fact that a long break meant hiring someone else to do the task, or getting the team to take more work on.

“It is perhaps not that, that they are going to be less committed to their job, but it is something that you are aware of.” (Swed-B female junior manager)

*[What about men and women having maternity and paternity breaks – how is your commitment viewed if you take a long break?]* “It is hard to answer, because if you see it from the manager’s point of view, or if you see as - the group members see it as a lack of commitment if someone isn’t there. *[Is that because the work falls on the group to cover it, to carry on?]* Yes. If the woman is going to be away for one year, you have to replace her with someone. But I don’t really think it is seen as a lack of commitment.” (Swed-B male junior manager)

#### **7.4.2 Attitudes to Paternity Breaks – It’s OK**

As this chapter has reviewed attitudes towards commitment and maternity leave, it is important to consider the attitudes towards paternity leave as well. As indicated earlier, in the UK, there is no statutory paternity leave, and normally fathers just take a few days off, paid or unpaid. However, in Sweden, it was a legal right and was commonly taken in the general population. First, the positive comments about paternity leave and perceptions of commitment from the Swedish respondents will be examined. One comment from a female engineer was that men taking paternity leave were seen as modern, and that this was seen as a positive signal by the company.

“No, I don’t think that means the same. It is the opposite way - they are very modern.” (Swed-B female junior manager)

In contrast, a Swed-C older male felt that men taking paternity leave used to be seen as “soft”, but he indicated that this attitude was no longer current.

"Nowadays in Sweden at least, we get pappa-ledigt (paternity leave). The fathers get home for the children and stay there for a considerable time, when they are very small. *[If a man does that, is that seen as less committed to his work?]* Not today. It used to be so a couple of years ago, because then it was, oh, he is that soft fellow (laughter). Not really as strong as all the rest of us. But I don't think that is the case now." (Swed-C male senior specialist)

Several of the Swedes in the Swed-B sample said they (or their partners) had taken paternity leave and part-time work, even when they were driving their careers.

*[When men take career breaks, is that a risk for their career, if the men take paternity leave?]* "I don't think so. If it is planned and everything, it is quite common nowadays. My first manager, when I came, he was taking a paternity leave. So he wasn't here when I came, he came in the evenings, helping me. It was a good start. *[So is that starting to feel like a normal part of working life?]* Yes. And I told you, my husband has been working for 50% for two years. And still he is very career-driven, well he is not a senior manager but he has a career." (Swed-B female middle manager)

"There has been more of this, that the father also takes a leave from work. In fact I have been off, for a couple of months at least. (laugh) *[But would men still take the full amount of time to which they are entitled?]* Well, It's pretty common now that the men at least are at home some months to take care of the children." (Swed-B male middle manager)

*[Do you think that women as they marry and have children, that they can continue their career afterwards in the same way?]* "Yes, I think they could definitely. Otherwise I don't think we could either. Because today, especially at Swed-B, it is really common that also the fathers stay home for six months. And the managers, on the men's side, really have to spend time at home too. And there shouldn't be any difference." (Swed-B male middle manager)

The economics of taking paternity leave was raised by some of the Swedish women. Two of them said that men with professional wives did take paternity leave, and hence were more supportive to their wives, whereas those with wives who earned less did not take the leave, their wives taking it instead.

"If I look at the men around me, I think they are, at least the ones who have wives with the same education, they are more supportive in that way, that they take paternity leave. The men with wives who have less education are less supportive in that way, because they have the higher salary." (Swed-B female middle manager)

"But nowadays I realise it is two people who has a child, and also a man's duty. So they are staying at home. And it applies equally for both. We have had paternity leave for so many years now, so they think it is okay. The problem is that mostly the women earn a little bit less, so she takes it, because they need the money." (Swed-C senior female manager)

#### **7.4.3 Attitudes to paternity breaks – It's not really OK**

Although there were these comments that taking paternity leave did not result in managerial perceptions of lesser commitment, there were also comments to the

contrary. It seems from the responses that even in Sweden, the taking of paternity leave by those on a managerial career track is not yet seen as “normal” by all the employees. In the 1980s, Lawrence & Spybey reported “only those whose talents or qualifications are very much in demand would risk trying it on”(1986, p.73). In Swed-B, the view was that it still depended on the attitude of the manager as to whether such action was perceived negatively.

“I have the same answer as I said about women. It is changing, and it depends on the manager you have. Some of the managers say, of course, this is no problem at all. What are you working on, which type of programme are you working with at that time, it is this and this, do you have somebody else who can take it, or can you when you are at home, then can you for example have two hours a week talk and so on, of course you can. But I think with some older managers, they can't understand why. It depends a little bit what type of job you have. Let's say that a manager on the next level here, if he should say, Now I have got children, I have to take three months now - that would be hard, I think. But on my level, I think it's no problem. If you are available so you can talk, for example, one or two hours a week, it is no problem.” (*Swed-B male middle manager*)

“I am sure that some managers don't like part-time at all. And I particularly remember one guy who was going to work six hours a day, it was his legal right, but it seemed like the manager didn't know about his legal rights. He got furious (very loud laugh). [*So even though it is a legal right, it is unusual?*] Yes. This is some years ago. Now I think most managers know about the legal rights.” (*Swed-B male middle manager*)

The females in Swed-B did still feel that it was a problem for men to take paternity breaks, and that for the people who had to do the extra work, it would appear that the leave-taker was less committed.

“But at least they are trying, some of the young male engineers, to be home as well, but it is still difficult for them sometimes.” (*Swed-B female middle manager*)

[*How about men taking paternity breaks, how is their commitment seen if they take three months off?*] “I think it does get seen as less. Especially among the people where you work. Maybe not from your boss. Because they have to do the work. [*So would you see men and women taking breaks as the same?*]: It is more accepted for women.” (*Swed-B female middle manager*)

Turning now to the situation in Swed-C, there was a feeling amongst the younger sample members, aged around 30, that for more senior managers, taking paternity leave would be seen as an indicator of lesser commitment, even though such leave-taking was becoming more common.

“I'm afraid so, men are seen as less committed if they take a 6-month break, as much as I hate to say that, it is still like this. Even if more are having this paternity leave now. [*Is it still seen as less committed?*] Only if you are in a chief (= *manager*) position, otherwise you can always get someone else to take over your job.” (*Swed-C female junior manager*)

“It depends on whether they are on a high level. But not on my level. No. Everybody does it. But higher up, it is not. I don't know but I guess they are

supposed to be more committed, I think. That's how it works". (*Swed-C male junior manager*)

One of the female middle managers felt that this was changing, with dual career couples becoming more common, and the increasing pressures for equality.

"That's the thing, those men they always had their wives be home when the children were small, at least till they started school. Because that was the norm at that time. But now you couldn't stay home more than one year because of financial reasons, as it is now. Maybe they look at those men who stay home as a bit of a problem, but not as much, I don't think so. But I think this will change as well, because they have to look at it more even, more equally. (*Swed-C female middle manager*)

#### **7.4.4 Rationale for retention post maternity leave**

Several UK-A managers made a strong case for the retention of women engineers after they had children, on the grounds that male engineers were just as likely to leave the company, as women were after pregnancy.

"If you want a family, fine. You can go and have a family, but that shouldn't be held against you because a man can quite easily go and get another job. .. But if the people who are looking after that individual recognise that they are committed, and the potential that they have got, just because they are married shouldn't come into it. And they should be allowed to progress up. If they do leave, that's unfortunate, but high flying men can go." (*UK-A female middle manager*)

"And you could argue that where it's a woman, you think of childbearing, marriage, whatever it happens to be, a man is equally likely to say, well I'm fed up with the UK, I'm going to go off to New Zealand or wherever. I mean, taking anyone on is a risk." (*UK-A male senior manager*)

"Actually that was quite an interesting sort of experience, because on the one hand, we started out with a woman, she did actually become pregnant about half way through and therefore couldn't go rushing round on the visits we made, and it was very disruptive to the group. And you think, well, I know I shouldn't be thinking like this, but actually, you know, one of us could be run over by a bus, so it's just one of many risks you have to take when establishing a group. (*UK male middle manager*)

There had been significant changes over the past decade at UK-A, which had introduced career break schemes and staggered working hours, which allowed parents to share parental duties, by working early or late shifts.

But there is still a general belief around, a certain percentage, that there is a high probability that these women are going to go off and leave. I think there is more of a recognition that the company can do something about that. It can be career breaks, they can come back, and we are an order of magnitude better now than ten years ago. Ten years ago I fought to get a woman coming back from maternity leave, she was being told it was 27½ hours or nothing, and I fought like mad to get her hours reduced". (*UK-A female middle manager*)

There was an argument that it was better to retain someone good even if only part-time for a period, rather than go through a recruitment and training cycle with an unknown replacement.

"The previous manager who happened to be male, just said, no you can't do it, and I said this is crazy. We must find some way, because this woman had got something like 12 years experience, why are we giving that up? Oh yes but we could recruit a new graduate. But why? I'd rather have her. So she could have 20 hours. So there was a lot of argument in that time frame, and I think there is more recognition of it now." (UK-A female middle manager)

#### 7.4.5 Whose problem is it anyway?

There were indications of national differences in these attitudes towards parental responsibilities and commitment at work. In UK-A, from many of the responses above, it seemed that the problem still rested with the woman, needing a favourable response from her manager in order to resume her career, and that some male managers did not think it possible to combine a successful work career with successful motherhood. Causer & Jones (1996) had commented on the power of the woman engineer's manager as to whether satisfactory arrangements could be made. However, one of the male managers said that he saw it as his problem to manage.

"I wouldn't have a problem with it [part-time work]. It's simply a matter to work around. If the woman who was a valued member, who had a family and decided she wanted to come back to work on a part-time basis, then that would be far preferable to me than not having her back at all." (UK-A male middle manager)

In Swed-B, the view was that the manager had to sort it out, and even do the extra work himself, according to one senior male, and another commented that it was just a normal part of work life that people took parental leave, no longer a personal problem for the leave-taker.

"When I became senior manager in March, two guys went on paternity leave, which meant that I had to do a lot of work. (Laugh) I was quite exhausted, to still keep up some of the technical work, and be manager." (Swed-B male senior manager)

[The men who can have several months of paternity leave, do they usually take that?] Yes, they do. [Does that cause you problems with your work priorities?] Yes (very big laugh) [But you don't think that makes them any less committed?] No. It is part of normal life. We accept it. (Swed-B senior male manager)

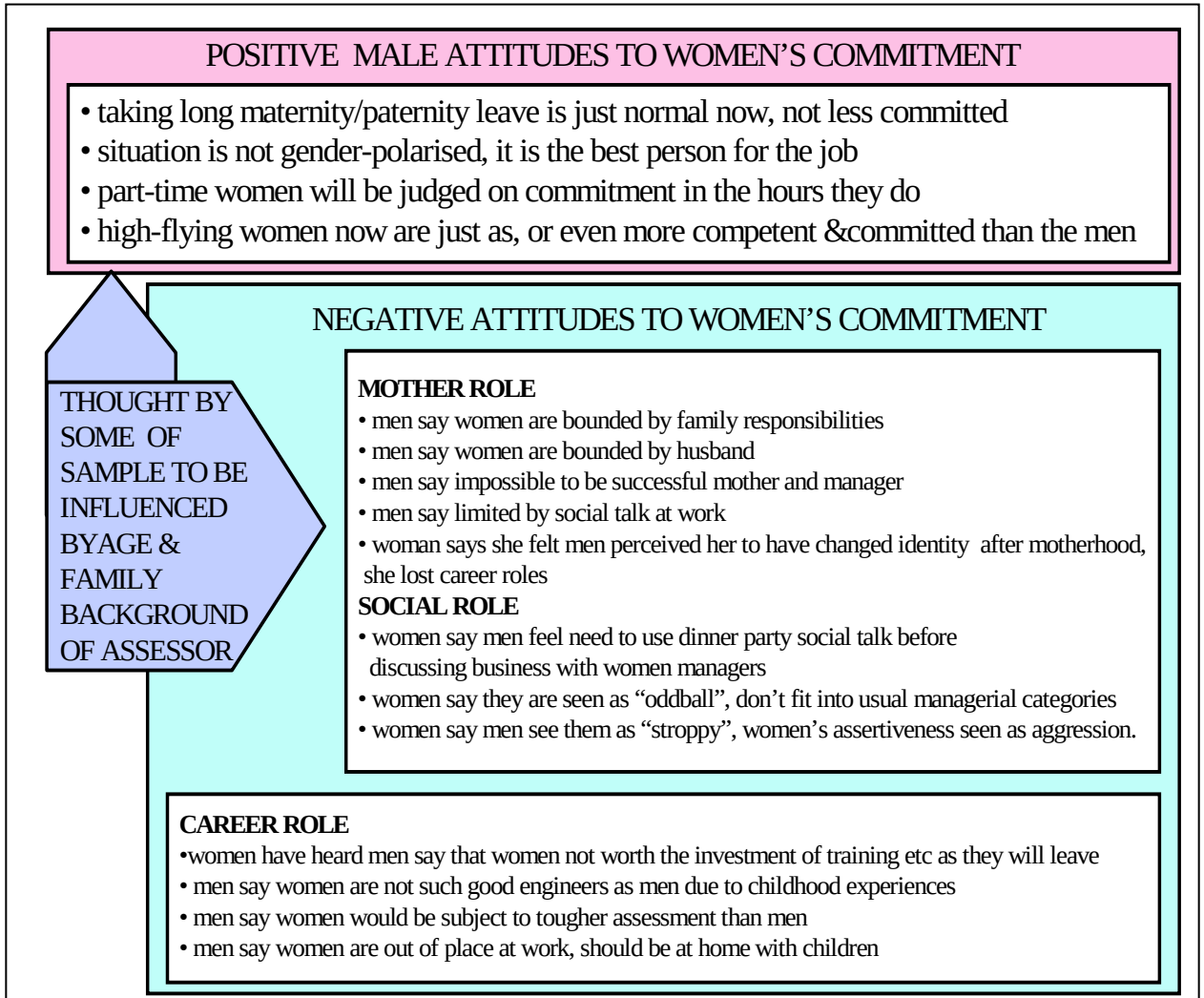
Also in Swed-C, the issue was said by senior male managers to be no longer a problem. The use of information technology was facilitating the communications between company and leave-taker, and the former problem was seen as a **planning issue for the manager**. This perspective reduces the negative effects of the "women's problem" approach to maternity and paternity leaves and part-time work.

[What about people's attitudes when maternity/paternity leave is sought?] This is no longer a problem, it is normal for all staff to take these leaves. (Swed-C male top manager)

[What if you have an engineer who only wants to work twenty hours a week, or a long maternity leave, say?] "I think as a larger company, that problem is

less, you have a lot of people to sort it, it is a planning question. So it is not a big problem... I.T. [information technology] definitely makes things easier, because you can do things." (Swed-C male senior manager)

**Figure 7.3 Attitudes towards women engineers' commitment**



#### 7.4.6 Summary of Chapter 7 so far

This section has reviewed the comments made towards the end of the interviews when subjects were shown the 2-stage model of signalling of commitment, with the gender and social background overlay, to elicit underlying attitudes to women in engineering management, and perceptions of their commitment. The respondents were mostly in agreement with the mapping out of the commitment assessment process.

The male managers' attitudes towards women in terms of commitment are shown in Figure 7.3. It can be seen from the Social Role comments that in these companies, women were still unusual at top and even middle level, and were very much in pioneer type roles (see Kanter, 1977). It should be noted that the British women at the top were all childless, and there were no female role models with children in any of the three companies at higher than the middle of the middle manager grade, other than the one senior woman in Swed-C, who had left the company to be a technical director elsewhere, and returned a decade later after her children had grown up. Whilst in UK-A, males were getting used to several women in director roles in the engineering divisional boards, this was not yet happening in the Swedish companies, where the most senior women were trying to combine middle management careers with motherhood of young children.

**Figure 7.4 The transition of maternity leave from woman's problem to organisational solution through male participation in career breaks**

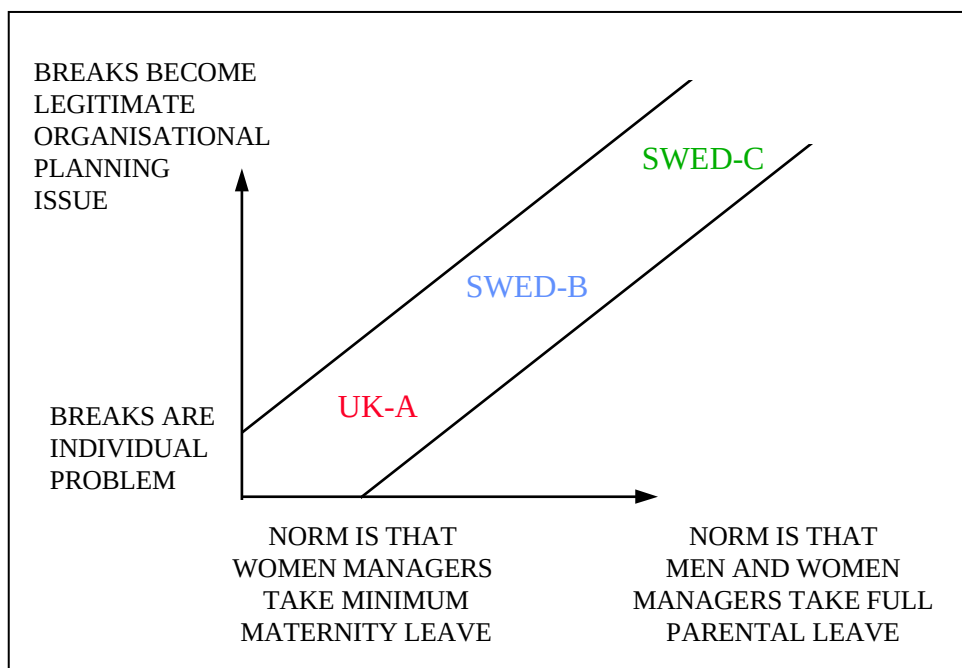


Figure 7.4 indicates the approximate position of the three companies in which this sample worked. In the UK company, there were few women even taking the standard maternity leave, and indeed, all of the top females and half of the middle female managers did not have children at all. Men just took up to a week of paid leave, and that could be considered generous on the employer's part in the UK environment. (As the thesis is being written up, there are plans to introduce statutory unpaid paternity leave in the near future.) It seemed from the comments made by both men and women that the issue of maternity leave was still mostly seen as a woman's problem, which she had to sort out with her

manager, who could make it easier or harder for her to continue with a career. However, it seemed that it would be very difficult to stay in the unpublicised “high-flyer track” after pregnancy.

The two Swedish companies appeared to be at different stages, as shown in Figure 7.4. In Swed-B, there was still some feeling that it might damage managerial males to take their full quota of paternity leave, but the transition from woman’s problem to organisational solution seemed to be under way. In Swed-C, the view from the top was that everyone took maternity and paternity leave, despite some comments from the 30-year olds that it could be seen as problematic for more senior managers to take this. These results indicate a shift in attitudes since Lawrence & Spybey’s (1986) research of Swedish production engineers, where they said that “The normal managerial view is that an executive ought not to take *pappaledighet*, and it would damage his career if he did. One also hears of managerial colleagues putting pressure on managers not to take *pappaledighet*, and doing so with the tacit encouragement of the managing director” (p.73).

These results indicate that as legislation starts to provide a framework within organisations where both parents start to take responsibility for their small children, the norms shift. It gradually becomes acceptable for ambitious dual career couples (as well as others) to take a couple of years with reduced hours or parental breaks facilitated by technology (home computers, compatible systems, email, fax, phone etc), without having their career advancement limited by managerial perceptions of their reduced commitment. It needs the legislative framework, and it needs adoption of this facility by career-minded new fathers to make the shift in organisational norms, but it looks as if this is happening in Sweden, though at a different pace in different organisations. As the UK starts to introduce the legislation, at least for paternity leave, if not yet for increased flexibility, then women’s commitment may gradually be perceived to be equal to that of their male colleagues, when they have children as well as a career.

This section has highlighted some of the underlying attitudes towards women and commitment, and has indicated the importance of the manager in facilitating flexibility and reintegration after career breaks. In Section 7.5, the commitment assessment process itself is considered.



## 7.5 THE NATURE OF COMMITMENT APPRAISAL

### 7.5.1 Evidence of Commitment

Chapter Five indicated the wide range of behaviours which were given as the meanings of “commitment” by these engineering managers. Table 7.1 at the beginning of this chapter shows a summary of the meanings. These were the tangible manifestations of commitment, shaped by the individuals sending the signals, and the managers who interpreted those signals in the context of their own meanings and the perceived meanings of the management, the collective “organisation”.

“I think we look at behaviour first of all. It is more evident, more blatant than attitude. Then I think we assume that attitude follows that. Behaviour is bigger, in my view. Yes, it would be both, with behaviour being the prime one.” (*UK-A female director*)

Chapter Five demonstrated the emphasis from senior managers on active commitment, with goal delivery as a key part in that, together with a willingness to accept change and take on challenges. Business awareness and customer orientation were also mentioned more by senior managers than by their junior colleagues as part of the meaning of commitment.

### 7.5.2 Tacitness of Commitment Appraisal

In UK-A, where commitment was not mentioned on the annual appraisal form (See Appendix 7.1A) 82% of the managers indicated that commitment was not formally recognised or verbally expressed. The whole process of assessing commitment was tacit, according to many of the British managers.

“The term ‘commitment’, other than ‘effort’ which is not an equivalent, is not there. .... All you are finding is that the various managers, people in the process – the personnel officers, I would assume – are looking for comments that the managers are making and they might translate into what they would call ‘commitment’. But, ‘Is this guy actually committed to UK-A?’, nobody asks that question. How do you answer it? So it’s one of those attributes that is important, but it has to be very subjective to the individual concerned.” (*UK-A male senior manager*)

“It’s one of those things that people probably taken into account in their heads when they’re rating potential or future moves, but I don’t think, it isn’t actually rated or talked about” (*UK-A female middle manager*)

“Commitment as such is never something I’d have put on my list, but I’m sure then I think of all the appraisals that I’ve done, it’s the sort of thing that as assessors, is in your head when you’re actually viewing somebody. You’re far more likely to say, well, he isn’t very good at meeting his objectives – you know, you’d have another way of expressing it, but actually it’s all to do with what you’re talking about, commitment. But it isn’t identified.” (*UK-A female director*)

Well over half the whole sample said that commitment was not voiced or written, but they had a feeling when someone was committed. However, it was difficult to judge commitment as an attitude.

"It's a perception almost, I get a feeling from people as to whether or not I feel they are committed." (*UK-A male director*)

"It's probably one of those more unconscious things, personality and behaviour rather than putting on a show." (*UK-A male senior technologist*)

"Well, the best manager I ever worked for did sort of pick it up out of the ether." (*UK-A male middle manager*)

Hence, as commitment as an attitude was difficult to pick up, it was the behaviours which tended to form the basis for judgement about someone's commitment. Six British managers commented specifically on the body language as the indicator, expressed as "the can-do philosophy".

"It would be something that you would glean from a day to day contact with people. Even down to the body language. .... It's little things that tell you whether people are bothered, whether they are just going through the motions. And I don't know of any way really, of finding out whether somebody is committed or not, without just observing and getting a very subjective view." (*UK-A female middle manager*)

"So it's while my boss would observe these things, and he is astute enough to realise that this is me showing a sense of commitment, and I get feedback from him, and he recognises that those efforts are made, and that there's a real sense of commitment there. We don't need to go and say we understand that." (*UK-A male middle manager*)

"And yes, sure, you can judge some of that by things like hours of work, personal inconvenience and what-have-you. You can't judge all of it. Maybe it is the only tangible thing that you can measure. But the body language of the "can-do-philosophy" is an equally valid measure of commitment. .... It's the body language that takes on board the difficulty, or the unpleasantness, or the messiness of the task, and resolves to be part of wading through the mud in order to get there. Horribly woolly words!" (*UK-A male senior manager*)

There were concerns about misperceptions and misunderstandings, and a senior women engineer mentioned the danger of confusing extrovertness with commitment.

### **7.5.3 Lack of Organisational Consideration for Context of Commitment**

Others were concerned about lack of awareness of personal circumstances. Both men and women talked about being perceived to be less committed when they had early start flexitime, but had to leave on time to pick children up, but took work home to do after putting children to bed, invisible to their managers.

"It used to be worse, because I used to take the train to work, using a bicycle and train system, and there were trains every hour. And I had to leave absolutely spot on time. My window between the official leaving time and having to leave to catch the train was less than ten minutes, every day. So if I had a meeting at half past three, I had to leave the meeting, whatever

stage it was in, because at the far end, I was responsible for picking up the children, and from taking over from the nanny. I couldn't just phone up and say I would be an hour late. ....I'm sure it's seen as not committed. You know, this guy won't come in on a Saturday morning, he's not a company man." (UK-A male junior manager)

Comment from dual career couple wife, whose husband had been posted overseas for 4 months, extended to 10 months by the same company, leaving her to manage childcare on her own: "I'm probably looking less committed because I'm leaving at half past five, whereas I would have stayed later. In fact, I'm having to take work home, but nobody sees that so they may think I'm less committed." (UK-A female middle manager)

#### **7.5.4 Experiences of Commitment Appraisal**

There was a general view that even if commitment was not specifically discussed, it was always at the back of the manager's mind during appraisals. However, it was not the first thing to be considered at an annual performance review. For some, it always came after the achievement of performance objectives.

"We do have an assessment once a year, a staff appraisal. In that, you have to look both at what they have technically achieved and personally achieved, And there you can recognise whether somebody is committed." (UK-A female middle manager)

"You assess it, but not as 'this is your commitment assessment'." (UK-A female director)

Some felt that only the project manager or line manager would know whether someone was really committed, whilst others said that there were checks in place to ensure that no-one's career progression would be blocked by a disinterested manager. Two senior technologists in UK-A felt that the appraisal process was in place simply to satisfy a need for a system, rather than a real developmental tool for both company and individual.

"I feel they are more done to satisfy a system rather than be useful", (UK-A female senior technologist)

However, most of the managers said that the formal annual appraisal system was where commitment was assessed and any negative issues around commitment addressed.

#### **7.5.5 Summing up the Nature of Commitment Appraisal**

Many of the engineers felt that assessment of commitment was done by the manager in a continuous way, which was then communicated to others, for example, personnel managers, at particular times such as the annual performance appraisal, or for consideration of promotion. The assessment was based on tacit judgements of evidence such as "having a can-do philosophy", and the criteria were assumed to be shared by others in the company, even where they were not specified.

## 7.6 MEASUREMENT OF COMMITMENT

### 7.6.1 Appraisal Forms

There were differences in the three companies over the inclusion of “commitment” as a feature on the annual performance appraisal/review forms (See Table 7.2).

**Table 7.2 Commitment on the Annual Appraisal Forms**

|                                | No                     | Yes           |
|--------------------------------|------------------------|---------------|
| <b>MENTIONS<br/>COMMITMENT</b> | <b>UK-A<br/>Swed C</b> | <b>Swed-B</b> |

There was mention in all the annual appraisal forms of many of the elements of commitment which have been elicited and rated in this study. For the key issue of working hours over the norm, only Swed-B mentioned being available when needed. Not surprisingly, the meanings which were not included were the individually-focused getting balance, and thinking of oneself as well as the organisation. Swed-C asked about satisfaction and the work climate, which is related to the “enjoy work” meaning given so much importance by the respondents. Swed-C’s form is very inclusive in style, as well as goal and team-oriented, Swed-B’s is clear, detailed and has sub-areas clearly defined, whilst UK-A’s form is the most concise, with some more abstract concepts (eg foresight) and less common terms “ability to write cogently”.

### 7.6.2 Appraisal Forms and Commitment Assessment in UK-A

UK-A’s form (at Appendix 7.1A) did not include “commitment”, and people from this company almost struggled to identify which of the features on the form was closest to commitment, some saying drive and determination, others saying quality of work, and others talking about the meeting of agreed work targets. It seems as if the commitment being described in the interviews is as an attitude through behaviour to deliver against the composite set of indicators listed in the appraisal form, but different people have different balances in how important they see the individual components. The interviews were undertaken in late 1996 and the first half of 1997, before the issue of the Values Statement also shown in Appendix 7.1B. This covered a range of organisationally desirable behaviours. Together, these could be said to represent a construct of “commitment” in that organisation’s context, given the meanings identified by the company’s managers when asked for their own meanings of commitment. Very recently, the company has issued a Leadership Behaviours statement (Appendix 7.1C) which includes more of the commitment meanings elicited. These two statements now include being customer focused, having pride, and promoting equal opportunity.

### 7.6.3 Appraisal Forms and Commitment Assessment in Swed-B

Swed-B does assess commitment on a formal basis, unlike UK-A and Swed-C. The form has a list of eleven sets of attributes, of which the assessor has to consider the first three sets and a choice of four other sets from the remainder, depending upon the particular job. The compulsory cross-company sets are Delivering Results, Commitment, and Innovation. “*Engagemang*”, one of the Swedish dictionary terms for “commitment”, is the second group on the annual performance review form. This has a subset: “loyalty; positive attitude, do that little extra, not seeking prestige, take responsibility, see opportunities not difficulties, available, turn up when necessary”. Staff are evaluated against these criteria, and marks out of five are given, which count towards career development and salary reviews. Note that in Swed-B, there is only one level of unacceptability of performance, compared with two levels in UK-A. See Appendix 7.2 (copy of form translated from Swedish)

### 7.6.4 Appraisal Forms and Commitment Assessment in Swed-C

Whilst Swed-B had commitment on the appraisal form, Swed-C did not. Their form was a check-list which had ten sets of criteria for evaluation on a 1-10 basis with 5 being the normal performance. The scores were later weighted, when used for pay settlements. There was a list of issues which individuals should consider before the appraisal, such as whether they had met their goals, and whether they could see their contribution to the strategic goals of the company. The note accompanying the form is focused not just on performance but on the involvement of the individual in the company now and in the future, and on what the company should do to facilitate the performance of the individual, for instance, by providing appropriate resources. Appendix 7.3 shows the Swed-C form, translated from Swedish.

### 7.6.5 Measures of Commitment

Whilst it is common for organisational behaviour consultants to measure “commitment” using a questionnaire based on the Mowday, Steers & Porter (1979) Meyer & Allen (1991) or British instruments (Cook & Wall, 1980), there were strong concerns in the British sample about whether “commitment” (as they used the term) could be measured, given its intangible nature, and the importance of the context within which the commitment is given and evaluated.

“I’ve never come across anywhere that formally assesses it, which is why I’ve never thought about it at all. A lot of that sort of thing is judgement by the line manager. ... And you have different sorts of commitment. ... So if you start having a measure of commitment, how do you do that? You have to know the people. ... You have to have some feeling of what commitment is in the context, you can judge somebody’s academic abilities, technical, organisational whatever, but commitment has a context.” (UK-A female director)

“If you had an appraisal system that had commitment as one of its things, you would get a lot of average sort of managers, and it would be interpreted

as how many hours does he do, is he prepared to do. It would have nothing to do with the quality of the hours... They'd say people aren't committed because they are not there twelve hours a day. And that isn't a measure of commitment." *(UK-A female director)*

"When I used to go to development cells in my group, you'd make comments like, he or she is committed, but it was never, this was always a qualitative thing, you never tried to assess it in a more quantitative way." *(UK-A male middle manager)*

Some were quite clear that the old loyalty issues were not what "commitment" was concerned about nowadays.

"I speak with a relatively high degree of certainty here for the current environment. So the guys who are relatively senior in Engineering, if we say, Are they committed?, we don't mean that they are never going to leave. We mean, will they ensure that this job gets done." *(UK-A male middle manager)*

"I think in a way, it is every time people think about how they can add value to the task they've been asked to do, which is outside the specific set of instructions they've been given. And the level to which they are able to expand things relevantly, put more of their own creativity into it. It's a measure of their commitment, but also their ability" *(UK-A female director)*

Several British engineers talked about "effort" being the easy measure of commitment, and although "effort" was not on their company form, "drive and determination" were there.

"We don't consciously measure it in a standard way. But we do when we appraise people's performance. I think it tends to come out in the way they've done their job, and the achievements they've made. And then all the things about being committed, like wanting to initiate change, being proactive, putting a lot of effort into it. Certainly when I appraise people, if they have demonstrated all of those things, then there would be some recognition of it in their appraisal, but it wouldn't be scored in any way." *(UK-A male middle manager)*

"We don't actually have the words on our actual pay assessment form. Within the company, it's either a Yes or a No. We don't mess around and try and measure it too much. Is this individual committed to the company, and then it's just "yes" or "no". It's almost like, if you've a reason to suspect not, then let's put them in this bucket, and if you think yes, then let's put them in that bucket. We don't try and measure on a scale of one to five." *(UK-A male middle manager)*

"There's no one thing called "commitment" on the appraisal form. It's just one of those unstated things that if you haven't got it, your progression is likely to be a lot slower than if management actually detects that you have got commitment to go with the competence. But yes, it is something that is there, which is noted." *(UK-A male senior manager)*

Others talked about writing notes about how committed people were even though it was not measured.

"If I think about the appraisals I've done for my first line team, I have almost always written sentences about how committed I think they are. But there's no metric associated with that. I think it was a perception that they put in

more than the minimum just to do the job, and a lot more than that.” (UK-A female director)

The issue of ethics over the evaluation of commitment was raised by several people, and two senior females were uncomfortable in not having resolved the issues within their own spheres of influence.

“It was very hard to assess a very competent job done by somebody with a good level of expertise, but within very defined hours, compared to people with the same level of expertise but making a commitment of a lot more than that. We’ve had a terrible problem of how much can you expect people to give you, as their employer. Is there a kind of ethical position, which says ... I’ve never felt I finished that argument with myself. I gave people hours of work, and they turned up and did those hours of work very competently. Is commitment something beyond that? Am I allowed to give people pay rises for what they do beyond? I think it’s difficult there, because it does affect women very significantly. Yes, I always feel slightly guilty because I never really tackled that issue properly.” (UK-A female director)

“I can think of one woman in my department, who does the exact number of hours you have to do, every day, because she’s made a balance, and she has said, No, she’ll give those many hours to work, and that’s all she’ll give to work. If you did some assessment that tried to assess it abstractly, you’d say, oh well, she’s not committed. Rubbish, because in those hours she’s at work, she will put every bit of effort into trying to solve the engineering problems she’s given. She’s a real engineer, a proper one. Terribly committed to engineering, and she’ll support the company to the hilt, as long as we only ask her to do those hours.” (UK-A female director)

As Werner (1994) commented, the ethical issue of commitment meaning unpaid extra-role behaviours, when the worker has family responsibilities which make that difficult, as opposed to the in-role behaviour for which the worker is actually paid, is a difficult one for managers when undertaking performance assessment.

#### **7.6.6 Time Frame for Appraisal of “Commitment”**

Whilst some managers reviewed “commitment” once a year at annual appraisal in a formal way, commitment was also considered when new posts or tasks were to be allocated. Half of the managers said that they picked up signs of commitment more or less on a continual basis.

“Through the appraisal system, then yes, every year, you will appraise people but commitment would only be part of that, because it is how well are they doing the job, what were the objectives that were set 12 months ago, have they achieved them. .... In that sense, commitment and assessment of their commitment comes into it, yes.” (UK-A female middle manager)

“I think continuously – I like to think I knew who was committed, in a sense that I think we’re beginning to understand, rather than people who just came for the money” (UK-A male middle manager)

“I would try and look at it continuously.” (Swed-B male senior manager)

### **7.6.7 Summing up Section 7.4 – Measurement of Commitment**

There were significant differences in the way commitment was assessed. In Swed-B, commitment was made explicit, with sub-concepts such as loyalty, availability and doing that little bit extra specified under the heading of *Engagemang*, or “commitment as involvement”.

There were differing opinions as to the measurability of commitment, the British engineers having concerns that if the measures were specified, people would meet the criteria without necessarily being highly committed, or that the wrong criteria, such as 12-hour days, would be set. There were also comments about the difficulties of assessing commitment of those who for whatever reason had to limit their hours to those of the normal working day. Swed-B did expect their engineers to be available when needed and rated them on availability as part of commitment.

It can be seen that the Swed-C assessment form check list is very focused on the individual in a more holistic way than the forms of the other companies in the study. Putting this into context with the position of the companies in Figure 7.4, Swed-C was leading in terms of changing attitudes towards parental leave and requests for part-time work. Such breaks were usually seen at Swed-C as legitimate for both men and women, and a managerial planning issue rather than an individual employee's problem, and hence no longer considered as an indicator of lesser commitment.

Later in this chapter, the dimensions which have been elicited about the nature of the commitment appraisal process will be considered.



## 7.7 MANAGER'S ROLE IN APPRAISAL OF COMMITMENT

### 7.7.1 Duty to pick up signals of commitment

The managers were asked what they thought the manager's role to be in the commitment assessment process. Almost all the managers said that they believed it was the manager's duty to pick up the signals of commitment from their staff and teams. There was virtually no gender difference in this belief.

"I think you have to look for it. You as a manager, one of your roles is motivating your staff, and people come in all different shapes, sizes and colours. And if somebody who is not a great publicist is committing themselves to something, I think it's for the manager to notice, because that person isn't going to come and scream at you that they have done all this. But if you don't recognise their efforts, then you're actually wasting a whole pool of resource, which you could be developing." (*UK-A female director*)

"I think the manager should pick it up. Like me, as a local manager, with my team. I should pick up their levels of commitment or reduced levels of commitment, and my line manager should pick up my level of commitment." (*UK-A male junior manager*)

"I think it is for the manager to look for it. And sort of showing an interest in getting this commitment. Because those people showing commitment without [interest], those people will disappear to other positions." (*Swed-C female middle manager*)

A third of interviewees reported that managers did not always find it easy to see commitment, a frequent explanation being that often they were too busy to notice. Again, there were similar results from males and females. A female middle manager commented that the recent flatter structure in her company was a potential problem. The opposite was the case for the British manager, who saw the company hierarchy as a potential difficulty for some of his colleagues. However, he was happy with the level of involvement of his own manager.

"It is difficult since they flattened the organisation. The manager really has so many people working for them that it could be difficult for them to see or find the committed people." (*Swed-B female middle manager*)

"It's this two way thing. You're quite happy to be committed but you want some feedback. And if you're not getting on with your manager, and he's being a bit of a hard person to you, maybe your commitment goes down. But then how would the person above him get to see your commitment? I don't know. Because you really need that link up the chain. And I think UK-A suffers a little bit in that you have a supervisor/line manager person who is in daily contact with you, but after that, the gaps get bigger and bigger, and you do have less and less contact with people." (*UK-A male advanced technologist*)

Two female senior technologists felt that the managers were sometimes not doing their duty, because of lack of interest or involvement in their junior colleagues' work.

(Interviewer: How do managers pick up that you are committed?)" "Well, that's really down to the individual manager. Some of them do, because they are good managers. Some of them just sit in their office, and don't even know who is working for them, never mind what they are doing. So it's very much how good a manager is." (UK-A female senior technologist)

"It's a tricky question really, because I always thought that they had this duty. They need to go about and see what we're about, what everybody works, and show that he knows the person is committed and is working well. But this kind of commitment from managers is non-existent here." (Swed-C female senior technologist)

However, a female director felt it was just as much the duty of the individual to be committed whether or not the manager is noticing. No-one else made such a comment.

"If a manager isn't good enough to be able to just look at his staff without interacting with his staff so he can tell how people are behaving and how committed they are, then he isn't a good enough manager. So yes, it's his duty to notice, in the sense that, as far as I'm concerned, if he can't tell you, then he isn't doing his job. It's equally the duty of the staff to do it without worrying if he's noticed – yes to both of those, they're not alternatives, they're both true." (UK-A female director)

There was also a feeling amongst some of the engineers that the manager ought to have some knowledge of the family circumstances in which the subordinates were giving their commitment.

"I like to know sufficient about people, and try and meet them on a social basis, not too regularly – you have to be a little bit divorced – but sufficient so that you've got an appreciation of the overall personal situation." (UK-A male director)

### 7.7.2 Setting a good example

Comments were made by several senior managers that they should be role models of commitment to their staff. This is an important function of the manager in reinforcing the message to junior colleagues of the organisational standards expected, labelled "exemplification" by Rosenfeld et al. (1995).

"You just behave in a way that shows commitment to what you're doing, or to them, and the way you behave tells them. .... The general behaviour level in what you show is important, because what you actually ask them about, what you follow up, whether you are prepared to listen to them even though it's inconvenient to you. It's all to do with demonstrated behaviour, whether you're consistent in the way you make judgements and things like that, show a commitment to them to whatever you're doing. You send an awful lot of messages out about what is important, by what priorities you set and the way you behave. And that's what they tend to learn from." (UK-A female director)

"I believe setting a good example is the principle that we should all work towards. I believe that we employ individuals who ought to be able to see the correctness of that, and therefore take a little measure off me, in terms of the way I do things, and the way I expect things to be done." (UK-A male senior manager)

### **7.7.3 Summing up Section 7.7 – Expectations regarding the Role of the Manager**

The evidence above has shown that it is the norm for the manager to be expected to notice the commitment of their staff. The manager's role is important because they reinforce the norms by their own behaviour, and they act as gatekeepers to more junior staff in terms of career opportunities and other rewards for high commitment. These engineers say they recognise that sometimes managers are too busy to notice the commitment of their subordinates. They report that this leads to influencing strategies being used by ambitious engineers to ensure the manager does pick up the signals of their high commitment. This use of "impression management" techniques is dealt with in the next section.

## 7.8 MANAGING THE SIGNALS TO THE MANAGER

### 7.8.1 Impression Management of Commitment

Individuals are “not passive elements in the performance evaluation process but active agents who may engage in efforts to influence the process and outcomes by managing the impressions and information they seek to convey” (Dulebohn & Ferris, 1999, Ilgen & Feldman, 1983). The desire for a two way process by making a good impression and getting tangible outputs was clearly indicated by some managers in this study too.

“I’d like him to notice. I want him to feel I am committed to the tasks and the job I’ve got .... Through the timely completion of tasks and objectives, then yes, if I’m given a job to do, I will strive to achieve it in the time-scales. And I will feel that I’ve let him down and myself if I don’t achieve it within the timeframe.” (*UK-A male director*)

Many of the engineering managers, recognising that their managers might not pick up the cues of commitment, said that they would actively manage the signals which they sent. This group included more than half of the women engineering managers.

“I think your manager should pick it up, but I think you have to demonstrate it for him to pick it up. I don’t think you should just expect him to read your mind. It’s a two way process.... You’ve got to put the effort in as well. But I think it is a manager’s duty to notice.” (*UK-A female senior technologist*)

“Well, sometimes you have to show it, because he is not always aware of how much commitment you put into your work, and I think that is something that everybody tries to do, if they get the chance. They say, look what I have done here, and look what I have done there.” (*Swed-B male project leader*)

This overt demonstration of commitment was something which did not come naturally to some of the engineers. They had learned to do it, or were advised that this was the way forward. (In Perlow (1998), a high tech manager had said that he had been advised by a senior manager of the importance of perceptions, as it was important to be perceived as a person who has been killing themselves early on a project, and would sacrifice personal life for work.)

“I have realised that I have to show it (big laugh). It is not in my nature actually, but I have learned that I have to tell what I am doing.” (Interviewer: “At what sort of age did you notice that was important?”) “About 30. But it should be in a way that if you do good work, it would be obvious that you are committed, to your boss. ... I suppose it shows when you talk to the manager, every time you meet him.” (Interviewer: “So would you make a conscious effort to show you are really enthusiastic?”) “No, no, I don’t think so. But they say I should do that more!” (*Swed-B male middle manager*)

“I expect my manager to pick up the signals that I am committed.” Interviewer: “And what sort of signals would he be picking up?” “My experience with this company has been more like you have to go and tell them, I’ve done this well, I’ve done that well, and say Look here. But I’m not

that kind of person.” Interviewer: “So are you not comfortable with doing that?” “No”. Interviewer: “So you have to sell yourself?” “Yes” (big laugh).  
(*Swed-B male senior manager*)

About a quarter of the women, and only a tenth of the men said that they didn't need to tell their manager how committed they were, and they would not do so specifically. They thought that the quality of their work would demonstrate their commitment without the need to actively draw it to the attention of the manager.

“I don't think I've ever gone out to demonstrate that I'm committed. In fact, if anything, and this may or may not be a female/male thing, I actively don't go out to do that. I always think, well, basically I'll get on and do the job, and through that, you'll be seen to be doing the job. .. That is something that I would never even dream of doing, although I recognise that others do, and it is a game.” (*UK-A female middle manager*)

Interviewer: Do you actively have to show that you are committed?  
“No, I don't, and I am doing fine. I don't think of that. ... If I felt that, I would probably quite soon be moving somewhere else.” (*Swed-B male senior specialist*)

However, a senior male manager acknowledged that managers might miss the commitment of those who did not visibly demonstrate it.

“There are often certain people that try to show that they are committed. And certain people, they are not afraid of telling how good they are. But there are other people, who are maybe even more committed, that don't do that, and they don't get that appraisal that they should have.” (*Swed-B male senior manager*)

Two female engineers said that they felt commitment was judged more on enthusiasm, presentation and ambition than on performance. This ties in with the findings of Heisler & Gemmill (1978 p.1048) from a survey of CEOs that promotions “were based on social presentability, visibility, organizational demeanor and political skill, as well as on competent job performance”.

“It counts more what your enthusiasm is, how you can present yourself, your social skills”, (*Swed-B female middle manager*)

“I was working in another group, and there I could feel that my manager was really satisfied with what I was doing, and still I wasn't – I didn't think I was doing good enough things. And I think he was judging me on my ambition rather than my performance, and how you express yourself, and if you have ambitions, you can be judged on that.” (*Swed-C female middle manager*)

This link of ambition to commitment was also mentioned by a senior male manager, and he indicated that in his company, high commitment and ambition was something to be proud of and flaunted.

“It's one of those attributes, unlike toadying, that's a good attribute and something to be proud of, and flaunt it. I mean, some people will take different views – how do you actually get your ambition recognised? I'm using commitment and ambition in different senses, but people have different ambition levels. One of management's roles is to match the ambition, capability, commitment, all those attributes.” (*UK-A male senior manager*)

However, there were concerns about misinterpretation of signals, and a Swedish woman engineer felt that women's actions were perceived differently to men's actions. Her comments were somewhat borne out by a male director's comments.

"If there are two or three women sitting together, they are not discussing work, they are gossiping. But if it is three men, it is, well, they are talking work – even if they are gossiping" (*Swed-B female middle manager*)

"If the women use all social talk during work talking of their children or their diseases and so on, they get interpreted in a way that they are not so committed. And that is the way it is." (*Swed-C male senior manager*)

### **7.8.2 Gender and national differences in managing signals to impress**

More women (53%) than their male colleagues (39%) talked about having actively demonstrated their commitment to their managers. Interestingly, three-quarters of the Swedish women said they had done so, in contrast to only a third of the British women and men, and to 40% of the Swedish men. Yet most of the Swedish women engineers felt that men talked more to their managers than women would do, telling them how committed they were, and what they had done.

"For example, if you watch, look at my manager's office, so you see more often my male colleagues who speak with my manager, more than myself or the other women engineers. And it is not just here that it is this way. I have worked in another company and it was exactly the same." (*Swed-B female senior technologist*)

Some of the women then developed strategies after noticing how the male engineers were acting to influence their managers.

"Maybe men are more likely to show them their results. .... You have got to show them, show even more how committed and good you are. As a woman, you have to do that, I think. Be very clear in that." (*Swed-C female middle manager*)

"I saw it in my first year. The men were talking with the manager all the time. They would run to him and show the paper or something, but I didn't have this need. I didn't have anything to show. I was doing my job and it was going well, so I didn't have any questions. Then I realised that as I wasn't talking with him, he didn't know what I was doing really. Because only in meetings I showed my results. But anyway, it is very important to talk with the chief, because you feel that he knows because you have these results out of your work, but he doesn't know every time." (*Swed-C female senior technologist*)

The latter quote is from a young, very ambitious female engineer, who contrived involvement from her manager by asking him questions, so that in the end, he had to notice her commitment. She went on:

"Actually you don't go to the manager and say, Look, I did this. You go to him with a question, and then he says, what do you think about it. So you always go with a question. (Interviewer: You've seen this happen – has it made you change the way you act?) Yes, it changed me. I try to talk to them.

I have three or four managers actually in a very special area, so I try to talk with them, I try to ask them questions, and have this contact, establish contact all the time." (*Swed-C female senior technologist*)

Although there were comments about the perceived gender differences, several of the women felt that it was up to the women to do something about the situation. The quotes below fit with evidence from Ragins, Townsend and Mattis (1998), researching Fortune 1000 women directors. Many of the women in that study said that they had to tell their managers that they wanted challenging assignments, and had to give explicit signals of this, otherwise it would be assumed that they were not interested. Ragins et al said that this represented a double hurdle for the women: first, they had to recognise that this was important, and second, they had to convince their managers that they wanted the challenge and could do it. The Fortune 1000 women "took charge of their own careers by overcoming gender-related expectations and seeking visible assignments that promoted their mobility". The women in this doctoral study made similar comments.

"So if you are a woman and you want some special assignment, you have to tell them. (Interviewer: So you have to be active. Do you think the women generally do that?) No. It will take years and years. We'll have to teach them." (*Swed-C female senior manager*)

"I think you have to be a little bit better than your male peers. And you mustn't be afraid of telling what you can do, and what you want to do. And you mustn't be afraid of getting a lot of doubts from the men before they know what you can do, because I think you have to prove yourself." (*Swed-C female middle manager*)

Seven women said that their male peers pushed for more career development than the women, and that this might give the impression of higher commitment.

"There is a big percentage [of men] that do a lot more knocking on the door, saying look, I'm ready for this. When are you going to promote me? Rather than just believing that doing a good job will be seen, and will be rewarded and recognised." (*UK-A female middle manager*)

"They take advantage of the system, and sometimes some of those guys get quite a bit of recognition, without them really producing so much, because they can manage themselves, and sell themselves." (*Swed-B female middle manager*)

"They talk more, and they talk louder. And it is not expected from a woman to do it in the same way, so when I talk with my manager, he is surprised that I think in the way that I do. So yes, men have another way of speaking about their careers. .... The women don't usually talk for themselves." (*Swed-B female senior technologist*)

According to one of the younger men, women were also less likely to stand up and say what they think, which could result in them not being noticed, and perhaps perceived to be less committed.

"Perhaps they are not noticed as much as men. .. I think they are not as willing to stand up and say what they think. I think they are just as committed

to work as the men are. (Interviewer: So are women less good at selling themselves?) Yes, I think so. And getting noticed, perhaps. Perhaps they don't think that their work is so important, so they don't get noticed as much as the men are." (*Swed-B male project leader*)

Women managers reported that men were more likely to talk about the work of their teams as if it were their own work that mattered, rather than the contribution which the team had made. They were therefore exaggerating their own commitment to the detriment of perceptions of their colleagues' contributions. This is an example of the "acclaiming" behaviour mentioned by Cauldwell and O'Reilly (1982).

"And when you see those same individuals performing for their seniors, they come across as extremely committed, and they will do that through apparent knowledge of the subject area, and through the use of words, often "I've been doing this, and I've been leading that", and giving a good impression. ... I think it is unnatural to the British, really, to be blowing their own trumpet, but I can see a distinct difference between the males and females." (*UK-A female middle manager*)

"My first manager here, he was very self-absorbed, and he took a lot of the good work that people did in his department, and always presented it as his. And that was very annoying, and people were very annoyed with him. But it was his way of doing things. And that taught me something at least, so I think it is very important working in teams, that all the team members get their credit when you do things together, and that you don't go out and say that I did this, if it is teamwork. So I try to be committed to my team-members, but sometimes it is difficult." (*Swed-B female middle manager*)

According to some managers in the sample, the men were also more likely to stay late to impress their managers, something which was harder for those with childcare responsibilities to manage.

"There is an element of people checking to see whether the boss's car has gone before they're leaving. If not, they'll hang on for ten minutes and wait till he goes, so he thinks they're keen. ... Like the guy who leaves at 4 o'clock on the days when the boss isn't here, and 7 o'clock on the days when he is, isn't actually getting anywhere for the company." (*UK-A male middle manager*)

"We are working on changing this impression [of commitment meaning longer hours]. We have an organisation here for female engineers. I am on the Committee, and they try to change this impression. And we think it must be enough working 8 hours a day, and that they must employ more people here if that is necessary. But they don't do that. And we try to change this by giving information, by arranging meetings, and talking about ourselves." (*Swed-C female senior technologist*)

One female engineer commented that women were more likely to accept additional tasks without complaining that they would need more time or other resources to deliver on time. Men would either seek the additional resources, so that they could deliver, or they would refuse to take on the task at all.

"Because if I have the results of my work, I show the results. And often I have so much to do that I don't have these results for all these little jobs. Then it feels like he doesn't know that I work at it that much. Because that is the difference between the man and the woman. The man, if you give the



man more jobs than he can handle, then he says that he needs somebody else to share it. But a woman, she tries to do it anyway. And if she is not ready with that work at the scheduled time, she feels that she hasn't done a good job. She actually has done a good job but it is too much of a job.”  
(*Swed-C female senior technologist*)

### 7.8.3 Faking commitment

Some senior engineers had experience of subordinates trying to impress them, and it was felt by six engineers that people could fake commitment in the short term.

“There have been occasions when there have been one or two people, where I got the distinct impression that they'd been trying to impress me, but they didn't necessarily succeed. .... There are sometimes those who try and wave a flag at me saying, look how committed I am. And it tends to be not so genuine. They may be committed, but they're actually feeling a need themselves to go out of their way, which isn't necessary, because I do understand who is showing commitment. ... Maybe they have had a manager in the past who perhaps hasn't recognised it, and they now feel a need to highlight it.” (*UK-A male middle manager*)

“You'd like to think it was subconscious, you know, he did a good job. I think you'd be naïve to expect that there wouldn't be individuals who would consciously want to signal something.” (*UK-A male senior manager*)

Nine of the 35 engineering managers said that it was not possible to fake commitment in the longer term, because of the need for extra delivery over a sustained period, and one senior woman felt that women would see through fake commitment better than men. However, two people felt that it was not really faking commitment but more a case of over-emphasising performance.

“They are maybe not faking it, they may be over-emphasising their performance.” (*Swed-B male senior manager*)

### 7.8.4 Discussion of Section 7.8 – Managing the Impressions of Commitment

Section 7.8 has shown that nearly half of the managers in the sample had used some level of influencing tactics to demonstrate their high commitment when they felt that their manager was not noticing it sufficiently. This indicates that they would be “high self-monitors”, attentive to situational cues, and keen to influence the impression that others have of them (Fandt & Ferris, 1990). A quarter of the women, and a tenth of the men felt that their commitment would shine through quality work, and they would not try to influence their managers by the use of any impression management strategies. Marshall (1984, p.157) had said that in contrast to men, women managers “seemed to rely on their managers' perceptiveness and good faith in recognising and developing talent”, and these responses provide evidence of that attitude. On the basis of those responses, this “non-influencing” group could be classified as “low self-monitors”. Kilduff & Day (1994) suggested that low self-monitors would not be as successful in achieving promotions. They drew attention to Rosenbaum's (1989) career tournament

model, and suggested that low self-monitors were more likely to be eliminated in the first round, and never catch up with their high self-monitor cohort peers.

A summary of the strategies mentioned by respondents is given in Table 7.3, put into context with the categories of upward influence used in Tepper (1995) based on Waldron (1991) to explore upwards maintenance tactics in supervisory mentoring relationships. Table 7.3 reveals that the men and women used a range of actions to enhance the impression of their commitment, and that some of the women commented on male strategies in general, as well as their own.

Like many other studies have found, these women believed they had to be better than the men to get their commitment noticed. Alban-Metcalfe & West (1991, p.167) found the women managers in their study said: “women have to be twice as good as men to get half the recognition”.

The “self-influencing” category which was not in Tepper’s classification is interesting. The male strategy of believing your work is important echoes the advice given in Hiltrop (1998, p.74) in a paper on preparing managers for the future. He described the importance of resilience (from Maddi & Kobasa, 1984), which features “feeling committed to and involved in what one is doing, rather than alienated from one’s work and other individuals. Resilient people not only feel that they choose what they do, but strongly believe in the importance of what they do”. Hiltrop goes on to say that believing this engenders self-confidence.

The strategies reported by the males could be seen as more related to impressing their managers about the delivery of the work goals (of the manager and their own) and indicating that they were good organisational citizens (Bolino, 1999). Wayne & Liden (1995) suggested that supervisor-focused strategies were more likely to impress than self-focused strategies. In contrast, some of the females’ strategies were referring to the development of a stronger relationship with the manager. This gender difference in the tactics used may be related to the higher sense of connection with others which women are said to feel (Gilligan, 1982).

It would seem that this group are using assertive rather than defensive ingratiation techniques. They are used for self-presentation and self-promotion rather than other-enhancement (eg flattery or opinion-conformity) and third-person directed (eg telling another something favourable which will reach the target indirectly) strategies, the three kinds of ingratiation strategies mentioned in Liden & Mitchell (1988). Liden & Mitchell state that there had been little research into this behaviour in organisations.

**Table 7.3 Strategies for Influencing Manager about Commitment**

| <b>Tepper's Category</b>               | <b>Tepper's Definition</b>                                        | <b>Female Engineers' Strategies</b>                                                                                               | <b>Male Strategies according to females</b>                                                                                                        | <b>Male Engineers' Strategies</b>                                                                       |
|----------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Personal                               | Interaction based on personal rather than task content            | Establish contact with your seniors.                                                                                              |                                                                                                                                                    |                                                                                                         |
| Direct                                 | Negotiation of terms, direct mention of perceived injustices      | Tell your manager you want something for your career, don't just wait for it to happen.                                           | Knock on the door and ask when your promotion is coming. Take advantage of the system, manage yourself, sell yourself. Talk loudly about your work | Show manager by saying, Look what I have done here, every time you meet him. Show initiative            |
| Regulative                             | Strategic regulation of interaction with boss                     | If your work is going so well that you don't need to involve your manager, go and ask him questions, just to keep him interested. | Talk about your team's work as if it was solely your work                                                                                          | Stay till after the boss has gone                                                                       |
| Contractual                            | Conformity to formal role requirements                            |                                                                                                                                   |                                                                                                                                                    | Deliver the manager's goals                                                                             |
| Extra-contractual                      | Willingness to exceed organisational and supervisory expectations | Be better than the males<br>Do a lot of overtime<br>Show very clearly how more committed you are than others.<br>Show flexibility |                                                                                                                                                    | Show the manager the results and the reports. Volunteer for additional tasks, esp off-site with manager |
| Additional – Self-Influencing strategy | Not fitting Tepper's categories                                   | Be prepared for doubts from males                                                                                                 |                                                                                                                                                    | Believe your work is important                                                                          |

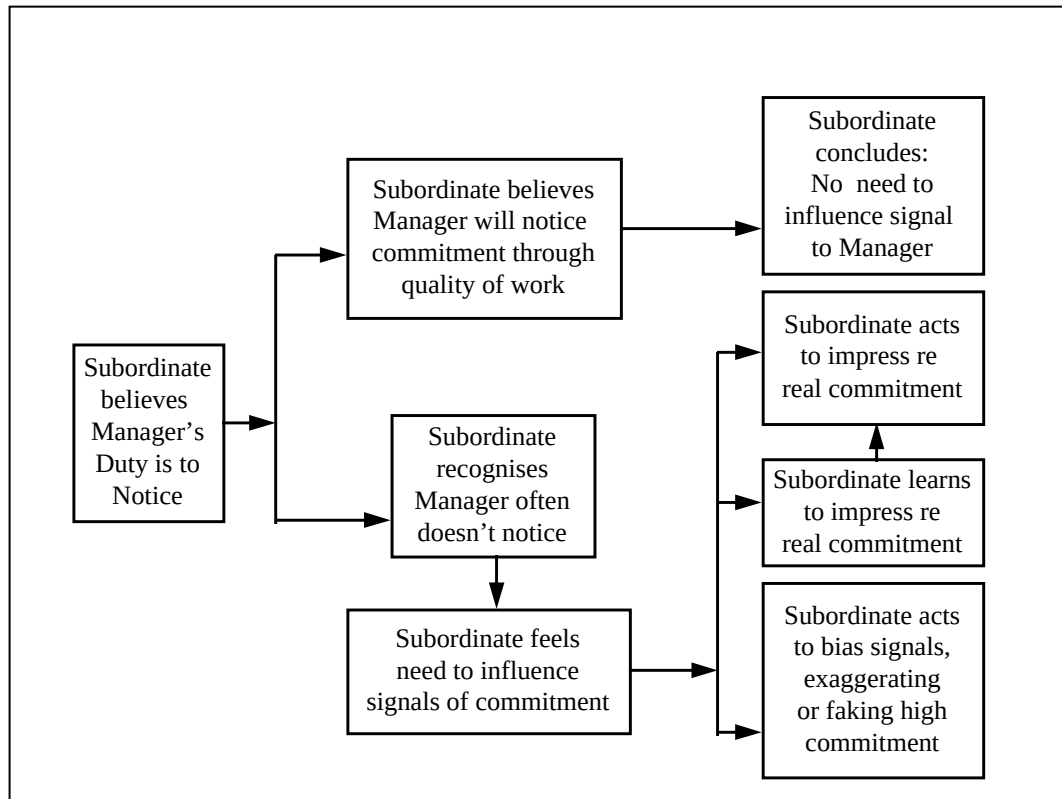
According to Wayne & Ferris (1990), supervisors are favourably influenced by ingratiation by subordinates, who may then be inclined to give more feedback and set higher performance goals than average, eventually leading to better “real” performance by the individual. So these interviewees’ strategies for persuading managers of their high commitment may well be effective. It is not just the enhanced performance which results from successful impression management, but also enhanced reputation. The literature indicates that impression management may lead to enhanced reputation which in turn may lead to increased effectiveness as a manager, because of that reputation. Gowler & Legge (1989, p.447) comment that “the ‘successful’ manager is the one who

manages the good opinions of others". They note that managers may have the right ideas and skills, but unless their reputation, ie other's perceptions of their abilities, is valued, purchased and used by those in power, their management capital is worthless for their career. Pfeffer (1989) also comments that people have to fit in with a group but at the same time, they must differentiate themselves to show that they are distinct enough for the organisation to push them forwards. Thacker & Wayne (1995, p.749) reported that "influence tactics played a significant role in affecting assessments of promotability". So this sample of engineering managers say that they are demonstrating their commitment actively, and there is other research evidence (referenced above) that this is likely to have several positive implications for their careers.

Figure 7.5 below maps out the responses discussed in Section 7.8, showing the consequences of the individual engineer's perception of the manager's role in the assessment of commitment. All the managers believed that the manager should notice commitment, but many recognised that managers did not always do so. The consequences of their stand on this include impression management techniques which are learnt and applied by some of the engineers, whilst others believe it is unnecessary to seek to enhance the visibility of their commitment.

This section has provided some empirical evidence of the use by successful engineering managers of influence tactics in supervisory relationships, where, according to Thacker & Wayne (1995), there have been few field studies. A recent paper by Bolino (1999, p.82) also comments that "researchers have yet to look at the positive images likely to accrue to individuals who engage in citizenship behaviours", and Bolino goes on to comment on the similarity, if not identity, of an act of citizenship and an act of impression management. The fact that a considerable number of these engineering managers refer to influencing tactics indicates that the evidence of the real level of commitment may often not clearly be accessible to the manager.

**Figure 7.5 The Consequences of Subordinate's Beliefs about the Assessment of Commitment by Manager**



## 7.9 OUTCOME OF APPRAISAL OF COMMITMENT

### 7.9.1 Filter for Promotion, Development and Challenge

The managers were asked what they would do with the commitment assessment when made. Some used commitment as a filter for promotion, challenge and job rotation.

[Interviewer: Would you think that high committed people get better job challenges?] “Yes, I do, I do believe that is true, absolutely. [Why is that?] Generally because of the behaviour that goes along with it. You know, the enthusiasm, verve, excitement, will, determination, you know, all very positive aspects of the individual which tend to make people say, well, if I’m going to pick my team, I really would like that person in it .. the enthusiastic ones, the ones who are determined, and do things.” (*UK-A female director*)

“When you are looking for somebody to lead a team, and looking to give them more responsibility, I think that having demonstrated commitment to the people who are making that decision, it is quite an important factor. I would certainly be reluctant to put someone in charge of a section who didn’t show commitment. ...If they were very competent technically but didn’t show a sense of commitment, I would be very reluctant to put them in that position. I would actually prefer to put somebody who wasn’t as experienced or as good technically but showed a real sense of commitment. For someone who is going to lead and manage a team.” (*UK-A male middle manager*)

Top and middle managers in all three companies felt that committed people with the right ability would get more training and development, and key tasks to perform, thus enhancing their career prospects.

[Interviewer: What kind of career development would be influenced by an assessment of commitment, assuming equal competence?] “Change, those kind of things. Commitment would be an attribute you’d be looking for if you were looking to move somebody from one department to another, to give them a more rounded development perhaps. Moving them to an area of greater freedom as well. ... That’s what I would be looking for. So commitment from that point of view is a sort of trust and integrity.” (*UK-A male senior manager*)

“People that work hard, that are very committed, of course it is more natural to give them the possibilities for a career. On the other hand it is to try to get people to be committed and to stimulate their work. I think there is a small difference in that. The first thing is more promotion oriented, the other thing is – well, call it a soft promotion.” (*Swed-C male senior manager*)

Others said that there was so much work that both committed and less committed people had to be given challenges.

“Basically you had so many jobs to do, you had to spread the workload out, and those who were maybe not as committed, they also had the challenges to do. It was up to them to try and achieve them. They may not do it in quite a quick a time as the committed would do, or maybe with not as much

enthusiasm, but generally the jobs were done because you needed to get engines tested.” (UK-A female middle manager)

### 7.9.2 Association with High Competence and Ambition

The rewards given in response to high commitment seem to be associated strongly with competence, ambition and managerial potential. This confirms the findings of Shore et al (1995), that those perceived to be highly affectively committed would be rated as higher potential.

“I don’t think I’d necessarily just look at commitment. I’d look at capability, and quality, and finishing capability, if you see what I mean. They do seem to be complementary. So depending on the type of assignment, I may well choose somebody who has a better finishing capability than someone who is just committed. I’m not sure you can divorce those two. I don’t really know. Maybe the two things go together.” (UK-A female director)

“It would certainly influence the way you dish out tasks, or the way you allocate things. .. Certainly when you’re looking for somebody to champion a task that runs across everybody, then commitment is one of the factors you take into account when you allocate it.” (UK-A male senior manager)

“If you had a very high profile team you were setting up to look at a key problem, as we had a while ago. We certainly looked at commitment. We looked at people who needed stretching, who needed an opportunity to prove themselves, but we needed to know that we had somebody who you felt would do all those inconvenient things that being on a very high profile project would require. ... It’s at the back of your mind, you’re actually thinking through who might do the job, is it a committed person. You might not write it down, but you’d sift anybody you felt wasn’t committed before you would consider the names.” (UK-A female director)

### 7.9.3 In the Manager’s Interest

Several managers felt that it was safer to give an important task to someone who was committed.

“If you’re going to choose between two people and one was obviously more committed, then you’re always going to favour that person. Just because you think you are going to get something back out of them, perhaps more so.” (UK-A male senior technologist)

[Would you give more of those opportunities to committed people?] “Yes, probably”. [Why would you do that?] “That’s a good question, that was my spontaneous answer. That is more like a secure way of success. It is more that a person with commitment, you see a quick pay-off of the investment.” (Swed-B male senior manager)

“I think it depends on the situation. If something is coming in which we really don’t have time to do but is very important, then I look at how committed they are. And if it is a period when we don’t have so much to do, I think I should give it to somebody to try to get him more committed. But in the situation where I have lots to do, the most important thing is that it must be done, we must deliver it, it is very important. Then it is given to someone who is very committed.” (Swed-C male middle manager)

An outcome of high commitment meant that there would be more than a fair share of future tasks, as the manager knew that the person would deliver, whatever the cost. This was not fair, according to one junior manager, who said:

“The committed people get a lot more than their fair share of work”. (UK-A male junior manager)

That was similar to the findings of Perlow (1998) that committed employees get caught in a cycle where the more they accepted the manager’s requests, the more they were asked to do, but typically only those who accepted extra work were rewarded.

#### 7.9.4 When the Assessment is not so High

There were issues related to less committed people which indicated the importance of assessing commitment and turning it around. Visibility of “glimmers of commitment” to an interested manager was a factor in the example below, where remedial action might add another committed person to the team.

“It’s easy to say, when somebody is showing a lot of commitment, give them more, give them as much as they can do, get them trained up, develop them. It’s trickier to identify those people who are not showing commitment, and think, well, why is he like that? It requires you to try and find out, which means talking to him, getting to understand a bit more about his background, putting real effort in to understand what it is and what could we do about this. Because this particular guy I’m thinking of – there have been glimmers here and there, which means he could do better, he could do more than this. We haven’t been using him effectively. You’ll talk to him, and you find out they have got aspirations, they’ve got ambitions, but are just a bit reluctant to make it obvious, perhaps because they’ve been knocked back in the past. So there’s some sort of scars there, and if you get to the bottom of it, you can actually make quite a big impact on somebody and change their approach.” (UK-A male middle manager)

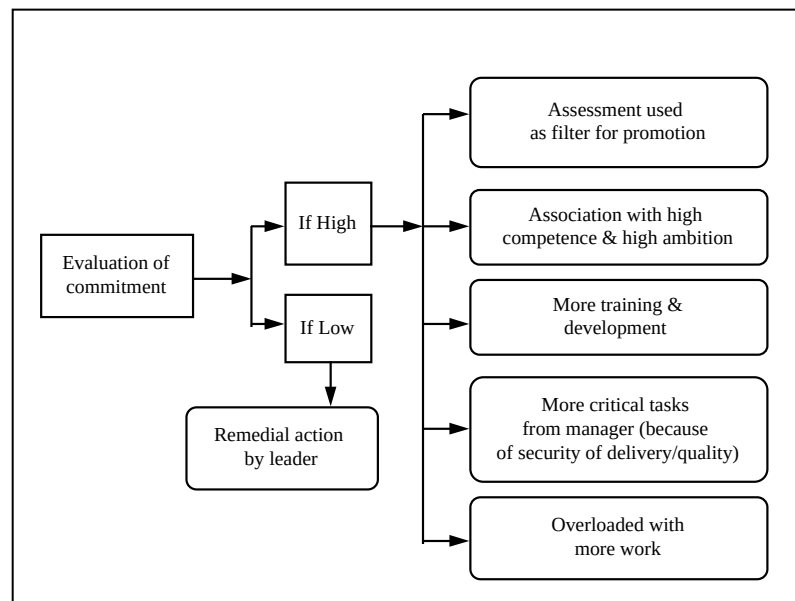


Figure 7.6 Outcomes of Assessment of Commitment



#### **7.9.5 Summing Up Section 7.9**

This section has reviewed what the respondents said about how the outcome of commitment assessment was used, sometimes as a filter for promotion, and sometimes as a filter for the allocation of training and development. The responses have been mapped out in Figure 7.6. It is important to note the association of perceived high commitment with perceived competence and high ambition, together with allocation of career rewards, and of critical tasks for the manager. These would all be likely to have significant impact on career prospects. This section confirms the findings of Shore et al (1995), and indicates the importance for female managers of being perceived to be as committed as males.

### 7.10 CONCLUSION TO CHAPTER 7 – ASSESSMENT OF COMMITMENT

The beginning of this chapter revealed some of the managerial attitudes towards women in engineering management and their commitment, in particular when women are seeking maternity leave, reintegration into career tracks, and periods of part-time work. Through the interviewees' responses in discussion of the commitment signalling diagram with its gender overlay, the usually unvoiced but continuing stereotyping of professional women has been identified, although there is evidence to suggest that this is diminishing over time, as another generation become managers. This stereotyping seems to be happening through the attribution to women by some male managers of social, career and mother roles which are seen to change the women's perceived work identity as committed career-ambitious managers (Feldman, 1981; Davidson & Cooper, 1992). It seems less a matter of gender than of attitudes to motherhood combined with career, as women without children, who say they are not contemplating motherhood, are progressing upwards in the UK. However, as in Wahl's sample of Swedish women engineers where 80% were married with children, these Swedish women almost all had children or were expecting to do so, and they were not getting into top management. Most of them stated that they were happy with managing an interesting job and their family commitments, indicating a gap between earlier career expectations and achievements, the "career-gap" which Wahl found, and which is similar to the findings of Evetts (19934a) in the UK aerospace industry at the beginning of the decade. However, the numbers in this sample are so small that general conclusions cannot be drawn on this issue, as the three very successful women in the UK sample who had reached director level could be said to be pioneers rather than necessarily typical of British women engineers in general, and two or three of the Swedish women could be said to be very ambitious too, even if they did have young children.

It can be seen that managers in this sample feel that their companies are moving towards a less negative assessment of those who have family responsibilities, both men and women, who also expect to pursue a successful career. The gradual take up of paternity leave by career-ambitious men in the Swedish companies is said by the respondents to be leading to changes in norms of assessment, and hence in corporate attitudes towards those who have parental commitments as well as work commitment. As the UK is introducing statutory paternity leave, as well as many organisations begin to increase flexibility for parents who need it, there could be a similar shift in attitudes towards women's commitment as has been indicated in the results from the two Swedish samples, once men also seek the flexibility with which to undertake dual commitments (work and family) as many career women are doing at present. However, the introduction of family friendly practices does not always lead to the end of

negative views of parental responsibilities, as Perlow (1998) indicated, unless the new message is really promulgated through into operational levels and incorporated into the organisational norms.

The responses about the measurement of commitment, together with the secondary data of the annual performance appraisal forms, indicate the tacit nature of the assessment process in the two firms where the meaning of commitment was not clarified, whilst it was presumed to be shared amongst managers. The findings also indicated the subjectivity of the appraisal itself, which was so dependent upon the manager's interpretation and perceptions of the subordinate's commitment. These findings confirm that assessment practices are still a problem for women, as indicated by Webb (1991), unless they learn to deal with them. Some women do so: Davidson & Cooper (1991, p.11) quoted Professor Sue Birley, one of the very few female directors of the FT 100 Companies, now on the main board of NatWest Bank, who said: "To the successful woman it is a power, to the unsuccessful woman it is a handicap. The attitudes of others can be used to a positive effect, because if people think it is more difficult for a woman to succeed, she will engender that much more respect when she does. If she has enough confidence, people will take her seriously, and in some ways she will be able to open more doors than men".

**Table 7.4 Elicited Dimensions of the Commitment Appraisal Process**

| <b>Evidence</b>                 | <b>Managerial involvement</b>               | <b>Assessment Process</b>       |
|---------------------------------|---------------------------------------------|---------------------------------|
| Intangibility                   | Level of Subjectivity                       | Visibility to employee          |
| Measurability                   | Level of Employee Influence                 | Involvement of manager          |
| Tacitness of evidence           | Level of Sharedness of understanding in Org | Formality of assessment         |
| Visibility of evidence          | Utility of shared meaning in Org            | Utility of assessment           |
| Collectivity of parts           | Ethics of assessment                        | Periodicity of assessment       |
| Liability to mis-interpretation |                                             | Salience of outcome to manager  |
| Specificity to context          |                                             | Salience of outcome to employee |
| Cumulative                      |                                             | Susceptibility to influence     |
|                                 |                                             | Continuous                      |

Some important dimensions of the commitment assessment process can now be proposed, and these are shown in Table 7.4. Chapter Five identified the meanings of commitment which were being used as evidence of commitment by managers, and those meanings were assigned numerical values of importance reported in Chapter Six. Another important group of these dimensions comes under the heading of Managerial Involvement. The key role of the manager in the assessment process has already been established. Whilst individuals believe it is the manager's duty to notice, many of them think that the manager would not in fact always do so. The findings of Chapter Seven have also indicated that both male and female managers take action to influence the process, using gender-

different impression management strategies to achieve this. Males are seeking to act and deliver the manager's goals, whilst females are trying to build better relationships with the manager.

One reason for the use of these influencing strategies is likely to be recognition of the importance of the manager in perceiving commitment and allocating career rewards, as indicated by the managers in this sample. These findings provide confirmation of the quantitative work of Shore et al (1995) that managerially perceived high affective commitment is associated with labelling of individuals as highly promotable. They also confirm the findings of Allen et al (1994) in their laboratory setting with MBA students, that those perceived to have high affective commitment would be given more career development rewards. This study now presents data from a real field study with senior, middle and junior managers.

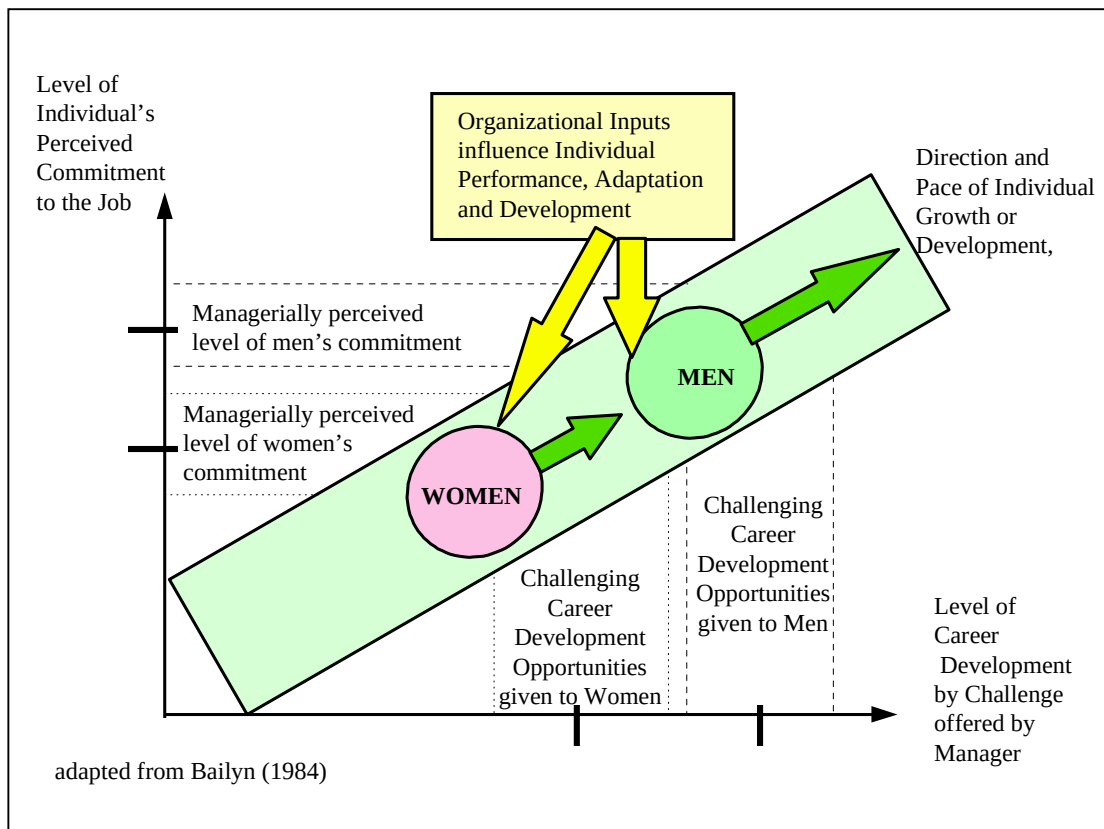


**Figure 7.7 Adding Gender to the Commitment/Challenge Career Path Model shown in Chapter 3**

There is evidence indicating the continuation of some male managerial stereotyping of women over their commitment, as well as some gender differences in the meaning of commitment, where women's commitment meanings are less visible than those of men. If those less visible meanings result in male interpretations that the women are less committed than men, then the male managers would be likely to offer them less challenging (and less

developmental) opportunities. Returning now to the model based on Bailyn (1984) shown in the literature review (Chapter 3, Figure 3.15), this can now be adapted to show how the career pace of women would fall behind that of men, if managers perceived their commitment to be less than that of the male peers, and hence gave them fewer development rewards as Shore et al (1995) and Allen et al (1994) indicated.

The adapted model is shown at Figure 7.7. Chapter Eight now pulls together the results and analysis from all three findings chapters, to identify the contribution made to the understanding of commitment from the managers' perspective, to see whether any light has been shown on the reasons for women's commitment to be perceived to be less than that of men. It also will review the implications for managerial practice, and propose further research.

## CHAPTER EIGHT: DISCUSSION AND CONCLUSIONS

### 8.1 INTRODUCTION TO FINAL CHAPTER

This thesis set out to explore whether male and female engineering managers shared meanings of commitment, which might shed some light on why women managers in male dominated organisations are often perceived to be less committed at work. To address the issue, an understanding of what managers mean by commitment was needed, and how commitment is assessed. Engineering was chosen as the field site, because engineering companies are so male-dominated. A two country design was chosen to incorporate two extremes on the dimension of family-friendly organisational policies and state support for childcare and parental leave, so that if perceptions of commitment were to do with managerial views about conflicting loyalties to work and family, then such contextual variation could provide a means for comparison. The thesis has examined the **meanings** given by managers – their beliefs, motives, purposes and reasons – in the social context of dealing with the terms of their own commitment (part of their psychological contract), within the social occurrence to which the meanings give rise – the assessment of commitment. (Jary & Jary, 1991). Two broad propositions guided the approach to design and analysis: firstly, that gender might impact the meaning of commitment to managers, and secondly, that managerial level would also have an influence on those meanings in the context of organisational and national differences. Whilst this could be said to be theory-testing, the approach was exploratory and theory building, as the propositions did not limit the examination of the data, and indeed, provided a set of initial themes through which to interpret the responses, as suggested by Miles & Huberman (1994).

Section 8.2 positions the thesis in respect of previous work, and with reference to Pettigrew's five guidelines for processual analysis. Section 8.3 provides the integrating model, which shows not just the relationships but also the impact of gender and managerial level on the findings. In Section 8.4, the implications for the commitment field are stated, pulling out the key findings. Section 8.5 addresses the importance of the findings for the women in management field. This is followed in Section 8.6 by the comparisons of the British and Swedish data. The implications for practitioners are dealt with in Section 8.7, both for organisational practice and for women engineers. The limitations of the thesis are expressed in Section 8.8, whilst suggestions for further research are dealt with in Section 8.9. The thesis closes with a postscript at Section 8.10.

The four research questions were as follows:

**RQ1 What is the Meaning of Commitment to Engineering Managers in the UK and Sweden?**

**RQ2 Does Gender influence the meaning of commitment held by engineering managers in the UK and Sweden?**

**RQ3 Does Managerial Level influence the meaning of commitment held by engineering managers in the UK and Sweden?**

**RQ4 How is Commitment Signalled and Assessed.**

## 8.2 POSITIONING THE THESIS

The study started with an investigation into barriers to women engineering managers' careers, and moved in the first year into the commitment field, as perceived commitment of women emerged from focus group discussions as an important barrier for women at junior levels in engineering graduate jobs. Commitment is usually measured using a self-report questionnaire based on the conceptual work of Mowday et al (1979), and no significant differences have been found between men and women's commitment when measured in this way (Mathieu & Zajac, 1990). Many studies of commitment found conflicting or inconclusive results, in part attributed to problems with the underlying conceptual framework, with strong questioning of the aggregation of continuance and affective commitment responses into one indicator of commitment. Morrow (1983, 1993) called for a review of the construct of commitment which would deal with the many overlapping concepts, and proposed the work commitment model (shown in Figure 3.4). Reichers (1985) and then Randall et al (1990) started a theme challenging the main body of commitment construct development on the basis that it had not been anchored in the meanings of practitioners, and called for more qualitative work with practitioners to ascertain their meanings. Randall's work investigated employees' meanings, which were indeed different from the sub-concepts of commitment in the literature. This thesis (RQ1) has responded to that theme, taking it further to work together with senior, middle and junior managers to surface their views on this intangible subject. Although the thesis started with women in management as the focus, it ended with it as the context within which meanings of commitment were examined. The gender differences and British-Swedish differences (RQ2 and RQ3) add to the commitment meanings strand of literature as well as to the women in management field. No previous research was found which identified managerial meanings of commitment.

The fourth question (RQ4) deals with the assessment of commitment. Shore et al (1995) had found that those perceived to be high on affective commitment were more likely to be labelled promotable. They would also receive more career rewards (Allen et al, 1994). Dodd-McCue & Wright (1996) found women were more likely to be rated higher on continuance commitment and lower than men on affective commitment. Thus, the situation is set where women may receive less career rewards and be less likely to be labelled as promotable, because of perceived lesser commitment than men. This thesis has therefore explored how commitment is signalled and assessed in practice, to illuminate the underlying mechanisms of that process, as realist studies aim to do (Bhaskar, 1989).

Checking back to Pettigrew's (1997) five guiding assumptions for processual work, firstly, this study has embeddedness, in that the process has been studied



across a number of levels (managerial levels, gender, organisational, national). Secondly, it is temporally interconnected, in past, present and future time, as consideration has been given to the underlying processes of power, identity and culture, through attribution, stereotyping, social conditioning, motivation, social exchange, social learning, social closure and agency, which have given rise to the phenomenon of women's perceived lesser commitment, and which are changing as both men and women managers seek more balance in their working lives. Thirdly, the thesis gives rise to possible explanations, through its description and analysis of the subjective interpretations of the actors in the study within the organisational and social structures. Fourthly, there has been a search for holistic explanations, through examination of the commitment of the whole person set in the wider organisational context rather than in dyadic supervisor/subordinate relationships. The managers in this study are all both managers and subordinates, and their meanings of commitment do seem to influence their assessment of others. The fifth criterion was that the process analysis should be linked to the location and explanation of outcomes, and this study's outcome in gaining an understanding of managers' meanings has led to a plausible explanation of why women's commitment is so often seen to be less than that of men.

Whetton (1989) gave the four building blocks of theory development as What, How, Why, and then a fourth of Who, Where, When to determine the boundaries of the context. In researching the issue of Why women's commitment is perceived by males to be less than that of men, the framework of What and How has been used to provide empirical evidence of patterns and discrepancies, from which relationships have been established. Table 8.1 explains how this research differs from previous work.

| PREVIOUS RESEARCH                                     | THIS RESEARCH                                                                                            |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Conceptualised by academics                           | Conceptualised by managers at three levels                                                               |
| Quantitative                                          | Qualitative                                                                                              |
| Deductive                                             | Inductive, with deductive loops                                                                          |
| Very abstract, long trickle-down effect               | Practitioner-related, Relevant to managers                                                               |
| Few studies on practising managers, often MBA samples | Sample of managers from leading companies                                                                |
| Little work on gender and commitment                  | Matched male/female pairs where possible (16 pairs, 37 interviewees)                                     |
| Few cross national studies                            | Two countries differing on one key dimension, ie organisational and national support for working parents |

**Table 8.1. Differentiating the Thesis**

### **8.3 THE INTEGRATING MODEL**

This study identified gender differences in the mix of components of commitment, through behavioural descriptions of role models of commitment. These perceived behaviours form the basis on which the shared organisational meanings of commitment are constructed. These gender differences are likely to impact the assessment of women's commitment by male managers, and by top female managers who have similar meanings to the males.

Figure 8.1 integrates the whole thesis findings.

- It indicates the linkages between meanings, terms, and assessment of commitment. The colours indicate the three findings chapters.
- It indicates where gender and managerial level have an impact on the findings, in particular on the meanings, tensions and visibility of meanings.
- It indicates the relative importance of the findings.



## 8.4 CONTRIBUTION OF THE RESEARCH TO THE COMMITMENT FIELD

The findings have already been summarised and discussed at the end of Chapters Five, Six and Seven, and so those discussions will not be repeated in full again here. However, the findings have only been examined within their chapter frame of reference, and now need to be pulled together and the linkages made explicit. Figure 8.1 indicated those linkages.

### 8.4.1 Implications for the Commitment Meanings Field

Previous management research conceptualised commitment as desire for job retention and loyalty to the organisation, together with internalisation of the organisational goals and values, and willingness to exert effort on the organisation's behalf. This research indicates a shift in the weighting of the component parts of the construct of commitment, from Mowday et al's 1970s emphasis on continuance commitment to affective commitment, but also to include career commitment, normative commitment and involvement. These are the meanings of commitment which are used by British and Swedish engineering managers at the end of the 1990s, and they fit better into Morrow's model (Fig 3.4).

| Fitting the meanings into the literature                                                                |                                                                                              |                                                                                                                                                                       |                                                                                                                         |                                                             |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Mowday = Steers &amp; Porter 1979</b>                                                                | <b>Continuance</b>                                                                           | <b>Affective/Attitudinal</b>                                                                                                                                          |                                                                                                                         |                                                             |
|                                                                                                         | <u>Loyalty</u><br>Desire to stay<br>Dedication<br>Loyalty                                    | <u>Identification</u><br>Involvement (in org)<br>Want to contribute<br>Identify w/org & product<br>Pride<br>Use judgement<br>Holistic view of org<br>Give information | <u>Effort</u><br>Task Delivery<br>Put self out<br>Do best, do extra<br>Quality work<br>Be pro-active<br>Hours over norm | Find solutions<br>Availability<br>Enthusiasm<br>Preparation |
| <b>Meyer &amp; Allen 1991</b>                                                                           | <b>= Continuance &amp; Affective as Mowday</b>                                               | <b>PLUS</b>                                                                                                                                                           | <b>Normative</b><br>Duty<br>Responsibility<br>Be Realistic                                                              | Control<br>Fairness<br>Trust                                |
| <b>Morrow Work Commitment 1993</b>                                                                      | <b>= Continuance &amp; Affective as Mowday PLUS Normative included in Continuance C PLUS</b> | <b>Career</b><br>Be Professional<br>Ready to Challenge<br>Be Creative, Innovative<br>Business awareness<br>Keep Technically Updated<br>Want to succeed                | <b>Job Involvement</b><br>Involvement                                                                                   | <b>Work Ethic</b><br>(Natural?)                             |
| <b>Personal Balance = Work/Life Balance; Enjoy Work; Think of Self as well as Org, People-Concerned</b> |                                                                                              |                                                                                                                                                                       |                                                                                                                         |                                                             |

Figure 8.2 The fit with the Morrow "work commitment" model

After an initial coding scheme emerged upwards from the data, the literature was consulted again, secondary coding took place, and the 36 meanings were regrouped under literature-defined conceptual headings as shown in Figure 8.2.

Under the Work Ethic heading, “natural” commitment has been included in Figure 8.2, but it did not feature in the 36 meanings of commitment which were rated by respondents as it was not identified until later, when it became clearer that it was Morrow rather than Mowday whose conceptualisation was closer to this study. Some respondents did mention people having a natural commitment to work hard, and that could fit under Morrow’s work ethic concept.

It should be noted that the Morrow model did not have a component under which the items under “Personal Balance” could easily fit, yet as has been seen in Chapter Six, those items were important to the respondents’ meanings of commitment. **This suggests that another dimension of commitment should be considered under the Work Commitment model: Personal Balance.**

Randall et al (1990) had identified four factors to do with quality, sacrifice, sharing and presence in the workplace as employees’ meanings of commitment, finding that presence in the workplace was not significantly related to their commitment when measured with the OCQ. Randall et al’s findings suggested that the employees and the management psychologists were not in agreement as to what “commitment” really meant, and that the OCQ did not measure what the employees thought of as “commitment”. This thesis addresses that issue with a rich picture of managers’ meanings of commitment (Geertz, 1973).

A contribution has been made by this thesis by the identification of a group of meanings of commitment which are relevant for managers in high tech engineering, by which they recognise senior role models, and assess commitment in others. In response to RQ1, thirty-six meanings have been elicited from senior, middle and junior managers, through asking them to describe what commitment meant to them, and to describe a senior role model’s commitment. It is acknowledged that a description of the psychological state of commitment has not been elicited here, but rather the behaviours which are evident to managers as manifestations of commitment, or in other words, the behavioural outcomes of commitment. When managers are concerned about the commitment of their staff, according to senior managers in this sample, it is the manifested behaviour that is of direct interest rather than the underlying attitude, and in this study, it is that evidence which may explain why women are perceived to be less committed than men.

Several key features emerged from these findings about the meanings:

**1. The four most common meanings:**

- Task delivery
- Put Yourself Out
- Involvement
- Quality.

**2. The four top managers' meanings:**

- Being proactive/using initiative
- Seeking challenge
- Being creative/innovative
- Adding value/business aware

**3. The difference in these meanings from what was expected from the main commitment literature, which was focused on loyalty and desire to stay in the organisation. The elicited meanings are much more active and encompass a wider range of factors, as shown in Figures 5.3 and 5.4, closer to the Morrow work commitment model, but needing another element to do with commitment to self, to others and balance.**

**4. The difference in these meanings from Randall et al's factors shown in Table 3.3, where the elicited items were not very relevant for professionals or managers. Randall et al's items appear more appropriate for those lower down the organisation, like those of Benkhoff (1997a) for bank clerks (See Table 3.4).**

**5. The gender differences in meanings, which are discussed below. The answer to RQ2 is therefore that gender does influence the meanings held by engineering managers, but this differs across managerial levels, top females having similar meanings to top males. A key feature has been the identification of the gender differences in meanings of commitment, which led to the visibility and orientation matrix repeated here as Figure 8.4, underpinned by the graph in Figure 5.8. These are described later in this Chapter.**

**6. The managerial level differences in meanings, in response to RQ3. The senior managers had meanings which were not shared by those lower down. They emphasised a very active set of meanings, shown in Figure 5.4, which would enhance both the business and the individual's career.**

**7. The British/Swedish differences, which are described later in this Chapter. In particular, more Swedish respondents gave task delivery**

**and involvement as the meaning of commitment, whilst Swedish top managers emphasised challenge.**

#### **8.4.2 Implications for the Work/Life Balance Field**

A recent Sunday Times (1999) article suggested that to put the balance back in one's life, the advice was: "Get a life. But you need to sort out your working hours first". When this sample was interviewed, a number of them talked about the need for balance in their lives, and gave this as part of their meaning of commitment. They were later asked to complete the Career Anchor Inventory (Schein, 1990). The career anchors indicate the linkages between motivation and the commitment terms of the psychological contract. Figures 6.11 and 6.12 confirmed that **half of this sample had lifestyle anchors**, compared to only 10.5% of the sample (including only 8% of males) in Igbaria et al's (1991) study of systems engineers. Schein and Igbaria et al had predicted that this anchor would be more common as more dual career couples struggled with work and family, and these findings support those predictions.

Interviewees were asked to rate the importance of the 36 meanings of commitment elicited during the interviews, to their own meaning, and to their perceptions of their organisation's meaning. Those ratings were very revealing about the importance of getting balance especially over additional hours. Five key tensions were indicated across the whole sample on the following meanings:

- \* **Hours over the norm**
- \* **Enjoying work**
- \* **Being people-concerned**
- \* **Thinking of oneself as well as the organisation**
- \* **Getting a work/nonwork balance.**

Herriot et al (1997) had found that the agreed view of obligation between employer and employee was working the contracted hours, doing a good job, and being honest. In the present study, commitment is far more than those three items, though number of hours is again of key importance. The high gap between individual and perceived organisational ratings of importance of the meaning of hours over the norm indicate that individuals at all levels were rejecting the notion of commitment as long hours, but recognising that their employer was valuing such behaviour. These tensions could be seen as part of the terms of commitment, part of the psychological contract taking an individual perspective (Rousseau, 1995). However, the inclusion of the senior managers' ratings could be said to be representing the organisational perspective, and certainly there were smaller gaps on the rated meanings for those at senior level, but even senior managers had tensions on these items.

The tension on being people-concerned may reflect the more performance-oriented management style in these three companies where delivery of commitment is essential, regardless of personal circumstances. This tension is seen by managers as affecting them personally as well as their having to represent the organisation in making demands of others. Ulrich (1998) suggested that companies should recognise the demands they put on individuals which have impact on their families and outside lives, by family friendly policies and support. Similar messages were coming from this study's sample, particularly from those with young children, from those whose partners had demanding jobs, and from those who were offered challenging posts which required relocation or commuting.

The emphasis on commitment to self and career should be noted from these ratings. This provides some confirmation of Morris, Lydka & Fenton-O'Creevy's findings (1993, p.35) in a UK study of graduate engineers, where "in both attitudinal and behavioural commitment, a degree of instrumentality is involved ... at odds with the picture of highly committed employees demonstrating unqualified organisational dedication and hard work painted by the more normative management literature, particularly from the USA". They felt that this difference was to do with the roots of attitudinal commitment in exchange theory, related to a sense of fairness about the exchange. In this present study, successful engineers, particularly the top women, were maintaining their market value, and taking care not to burn out. On fairness, many of the engineers who gave up booked holidays for the company expected to receive additional flexibility in return, as recompense for the disruption to family life. There were expectations, indeed trust that the balance would be restored. Guest's (1998) model of the psychological contract (Figure 3.9) indicated the importance of fairness and trust in the delivery of the 'deal', which led to job satisfaction and organisational commitment. The UK-A director who commented on the thesis findings viewed the organisational side of the psychological contract as a partnership based on fairness and trust in return for high performance and high commitment.

The ratings gaps led to more detailed examination of the interview material relating to the five meanings listed above, and a number of negotiating and accommodating strategies for dealing with the perceived tensions were identified. These findings have contributed further evidence to existing research on work/nonwork conflict by Kirchmeyer (1993), and by Perlow (1998), whose categories of careerist, compromiser, juggler and rejector could be compared with the organisational and family terms negotiators and accommodators in this study. Perlow expected that there would be more compromisers and jugglers amongst both men and women, as fewer people were prepared to give their all to



their employer, and as more women wanted advancement even if they had a family. The evidence here suggests that this is happening in the UK and Sweden.

Bringing this study's results into context with the latest research findings has indicated the increasing importance of work/nonwork balance as an organisational as well as individual concern. These results highlight the importance of helping managers to deal with work and personal life priorities. Pfeffer (1998, p.112) commented that people "do work for money, but they work even more for meaning in their lives. In fact, they work to have fun". This sample's meaning of "enjoy work" as part of their commitment confirms Pfeffer's statement. Bailyn (1993) had suggested a new organisational work "mold" for combining the work and nonwork parts of individual lives, incorporating commitment without conflict. Argyris (1998) proposed that organisations would benefit if they helped people to understand the choices they had to make about their own level of commitment. This balance could be achieved by asking people to deliver the outputs with a partnership approach to dealing with competing commitments, according to Friedman, Christensen & DeGroot (1998), who suggested that being interested in the employees as whole people brings trust, and makes better use of their talents in striking a work/life balance. Friedman et al claimed that the integrated approach brings about a win-win situation, whereas otherwise there is always a trade-off where work or personal life wins and the other loses. Certainly the importance of these factors in the meanings of the present study's sample suggests support for their view.

Kets de Vries & Balazs (1999) suggested that organisations are changing in terms of the organisational culture and personal needs interface. They introduced the term "*authentizotic*" organisation, meaning an organisation which has "authentic/values for life" values where people will commit themselves with hard work, creativity and imagination, through having a greater sense of self-determination, sense of belonging, sense of enjoyment and sense of meaning about their integrated work, community and personal lives. The companies in this present study were clear about what they wanted from people, as the terms of commitment. It was not just additional hours but involvement and creativity.

"You want people to engage and do their jobs in a way that takes over the whole being, or at least quite a large chunk of their lives, and that is still with them when they're away from their jobs. .. They are committing the thinking they have to do, the development of themselves that they have to do."

"You don't want them to just have a work brain. You want them to be continually stimulated, you want them to get up in the morning and think, Ah, what are the challenges I've got today. ...People have ideas in the funniest places, and you want them to respond to that, and be enthusiasts. That is a very life-job integrated sort of commitment."

The meanings of commitment expressed in the three organisations of the present study relate very strongly to the values of Kets de Vries & Balazs's authenticzotic organisation.

#### 8.4.3 Implications for the Assessment of Commitment Field

This thesis has made a contribution to this area, where very few studies were found. The assessment of commitment can have a significant impact on women's careers. The following points have emerged.

- \* **The identification of continuity and change in male stereotypical attitudes towards women managers and their commitment in their roles as professional engineers and managers. Managers report that the stereotyping is reducing as older managers, often with limited experience of women as managers and women as engineers, are retiring. Younger male engineering managers say they are not stereotyping women.** This age pattern confirms the findings of Liff et al (1996) in their study of male attitudes to women in management in the West Midlands in the UK, and also the findings of Kvande & Rasmussen (1991).
- \* **Identification of the changing views of maternity leave with less negative connotations about commitment, as it becomes acceptable for men to take paternity leave.**

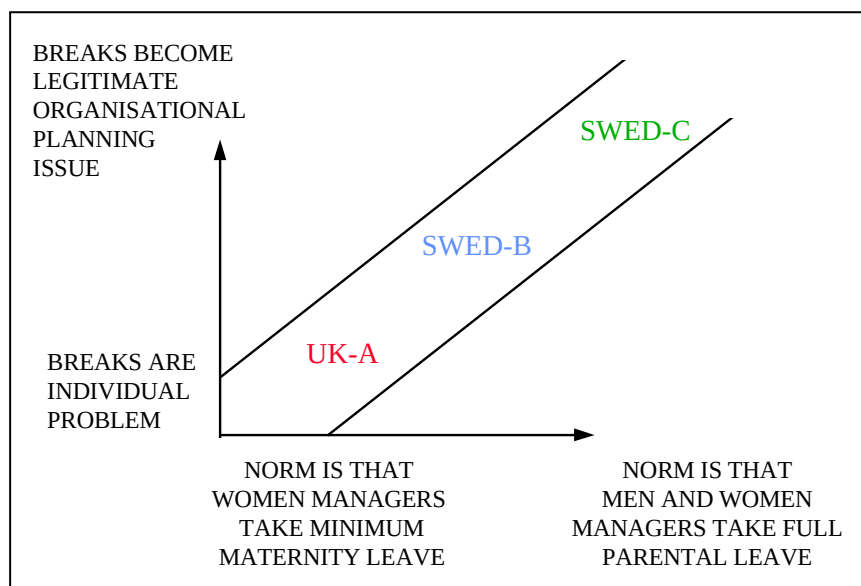


**Figure 8.3 Transition of Maternity Leave from Individual Woman's Problem to Organisational Solution for Men and Women.**

As Liff & Ward (1998) and Rubin (1997) indicated, organisations can implement the structural changes needed for equal opportunities and family-friendly

measures, but the line managers have the power to delay the change, by continuing to treat requests for leave as individual (female) problems in their (male) managerial gift to respond, rather than as organisational planning issues. When career ambitious women opt for postponing motherhood because of fears of losing their work role identity, and where some of their significant roles are taken away by managers after motherhood, as there is some evidence in this study, then the hidden power of line managers in controlling the agenda may still be there, despite the corporate messages from personnel directors (Lukes, 1974). The shift in managerial attitudes towards acceptance of requests for maternity and paternity breaks in Swed-C, and to a lesser extent in Swed-B, indicates that whilst the change is taking place only after many decades of equal opportunities and family-friendly policies, it is slowly happening. Only when ambitious male managers regularly take such leave does the underlying attitude seem to change. The shift has been made in Swed-C, it is happening in Swed-B, and perhaps starting in UK-A, as indicated in Figure 7.4 which is repeated here for ease of reference as Figure 8.3.

Other findings of importance in the commitment assessment field are as follows:

- \* **The impact of the subjective and tacit nature of commitment assessment, and identification of some of the dimensions of commitment assessment, shown in Table 7.4.**
- \* **The identification of the role of the manager in the assessment process, and how the perceptions of that role may lead to the use of impression management.**
- \* **The gender-different strategies used in impression management. Women (and men) are learning to impress.**

Where commitment was specified, as in the Swed-B appraisal form, managers did seem to have a clearer view as to what commitment meant within the organisation, and that provided a solid foundation for sharing that meaning across individuals and departments. In UK-A, the view was that if commitment was specified in the appraisal process, employees would ensure that they met the criteria even if they were not really committed. However, Bolino (1999)'s view was that as long as the behaviour was the organisationally desired behaviour, the underlying motivation did not matter so much. It was rather the performance, and through the act of behaving as good citizens, the norms were maintained for high commitment and high performance.

**The findings in Chapter Seven gave evidence of the link between commitment assessment and outcome of that assessment. Where**

**perceived affective commitment was high, more career development rewards were said to be given by the managers in this sample.** This confirms the findings of Shore et al (1995) and Allen et al (1994), and indicates the importance for women of being perceived to be highly affective- rather than continuance-committed, as if they are given less challenging tasks and opportunities for growth, their career pace and scope may fall behind that of their male peers, as proposed in Figure 7.7 in the adapted Bailyn model.

## 8.5 CONTRIBUTION TO THE WOMEN IN MANAGEMENT THEORETICAL DOMAIN

### 8.5.1 The Importance of Visibility

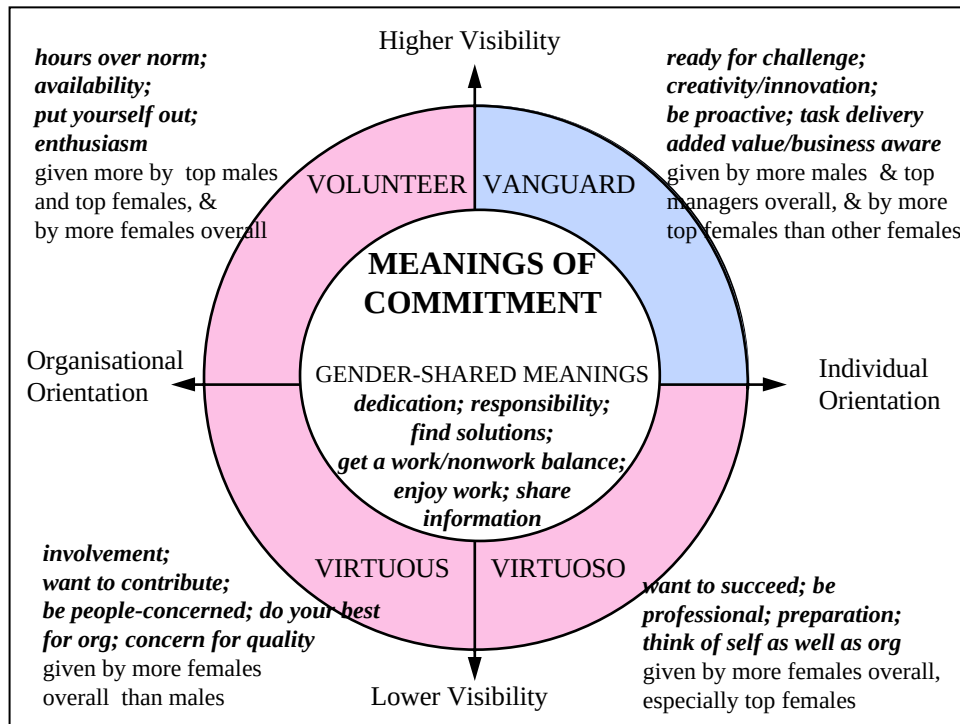


**Figure 8.4 The Visibility/Organisational-Individual Orientation Matrix**

This thesis has made an important contribution to the women in management field, with empirical evidence to suggest an explanation for women's perceived lesser commitment. Through identification in the spiderplot at Figure 5.8 of the gender and managerial level differences in percentages of respondents who gave the 36 commitment meanings, the matrix shown at Figure 8.4 (Figure 5.9 in Chapter Five) was developed with axes of higher/lower visibility and individual/organisational orientation. Quadrants were labelled Virtuous, Volunteer, Virtuoso and Vanguard, comprising sets of meanings which were gender differentiated, whilst a fifth set of meanings such as balance and enjoying work were common to both genders. **What is important to note is that overall, more males gave the Vanguard meanings, as did more senior managers. Overall, more females gave the Virtuous, Volunteer and Virtuoso meanings. Thus, it could be argued that the males in the sample had a better view of what was desired as "commitment behaviours" by the organisation, represented by the senior managers, than did the females. What is also**

**significant is that the senior women shared the Vanguard meanings, and these were the women who had got through the “glass ceiling” in one of the three companies (UK-A).**

So the matrix based on the thematic content analysis results in the spiderplot combining the managerial levels data with the gender data, indicates that higher visibility and individual orientation of commitment may be important for career success, especially for women, together with the organisational citizenship behaviours. Being virtuously committed, although good for the organisation, is not necessarily enough for success unless it is visible to the manager. Many good organisational citizens demonstrate the kinds of volunteer activities mentioned here, but they are not necessarily rewarded with promotion. Yet these are the meanings oriented to the organisation and mentioned by more women than men, conflicting with the view that women managers are less committed to their organisations. What is interesting is the group of meanings labelled Virtuoso, those actions geared to helping an individual improve their performance, through preparation, being professional, seeking balance to avoid burnout. These are the meanings of top women.

The Vanguard meanings are much more active than the “extra effort for the organisation” of the Mowday et al (1979) definition of commitment. They reflect the changing work environment of high performance, challenge, innovation and business awareness, and the males were more aware of these when responding about their meanings of commitment. These behaviours would be very visible not just to direct managers but to those above as well, marking the actors as “promotable”, as some of the managers indicated. Mainiero (1986, p.573) in her study of engineering careers said that “those who are fortunate enough in their early careers to possess the three factors....(job structure that allowed for a technical contribution; access to management mentors, and demonstration of entrepreneurial initiative) seem able to generate a self-perpetuating cycle of visibility and recognition that sets them in the right position to be considered for management”. Another British study into career success factors of men and women directors in a large telecommunications company indicated the importance of visibility to the next tier of management at any given stage (Vinnicombe, Singh & Sturges, 1999).

It is the visibility of commitment and achievement which leads to success in the career tournament model as suggested by Rosenbaum (1989). That visibility leads to the “promotable label”, which as Shore et al (1995) indicated was the result of assessment of high affective commitment. But the label only lasts for a period, until the next round. This is where those seeking career breaks may come

to lose out. They lose the label, and are not entered for the next round. Hence, the strategies used to facilitate the visibility, the impression management techniques, come into play. In this study, nearly half of the managers said they used impression management. However, what was interesting was that the men used strategies which research indicates would be more likely to succeed (Tepper, 1995). They ensured they delivered the *manager's* goals, and they made every effort to reinforce the message that they had delivered. They took action to control and use the relationship, whilst the women took action to build closer relationships. "Marketing" their commitment in this way was something which some of the men saw as quite positive. "If you've got it, flaunt it – it's not like toadying", as one senior manager commented. Women commented that the men tried to impress more than the women, but in this sample, more women than men said they used upwards influencing behaviours.

### 8.5.2 The Explanations of Women's Perceived Lesser Commitment

The importance of visibility and labelling as promotable in the tournament rounds has been identified as a possible explanation of why women are perceived to be less committed. There are other possible explanations indicated in the evidence of this thesis.

- i) **The choice of women's meanings of contribution to the collective rather than to the individual.** Women may be more communal by nature and by socialisation (Gilligan, 1982; Marshall, 1984), and view commitment as part of the community at work, whilst men's commitment is targeted, challenging and individual. The "Men are from Mars, Women are from Venus" idea may be relevant here (Gray, 1992).
- ii) **The different composition of meanings of commitment, by rational choice.** Women may simply prefer the Virtuous and Volunteer kinds of behaviours to the more individualistic Vanguard behaviours. There was some evidence that the women did not like the politics and aggression at work, although others said they just ignored it.
- iii) **Women using different words than men would use to describe the same underlying meaning** (Tannen, 1986). This is a possibility, but given the openness in the interviews, where each meaning was explored and discussed in depth, and the similar patterns across the sample in all three companies, this is unlikely to be the case.
- iv) **The criticism being used by males as a rhetoric.** Rhetoric allows a justification to be made for power and exchange relationships, hiding possible discrimination underneath (Gowler & Legge, 1981). There is some evidence of this in the past, which has led to the gender-inequitable power relationships in male dominated organisations such as these, but there is change underway and a genuine willingness at corporate level in

all three companies to accept and even welcome those women who can contribute the same levels of competence and commitment as their male peers.

- v) **The different composition of meanings of commitment, by lack of awareness.** Women at junior and middle management levels may not have picked up the signals from the organisational culture as to what kind of commitment is sought by top managers in their search for the next generation of leaders. From the ratings of the meanings, it was clear that women overall were differing from men overall in terms of the importance they attributed to the meanings, and from senior managers' meanings. One of the Swedish directors commented on the possible lack of awareness of women engineers of the need to accept challenge, without worrying whether it might fail. He said that males always jumped at the chance of challenge whilst women had to be persuaded that they were sufficiently competent to take it on, and that often managers were too busy to put that additional effort into persuasion, offering the challenge to a keen male knowing it would be immediately accepted. This lack of awareness could be seen as a failure to understand and share the "indeterminate" culture of the organisation, or as Bourdieu (1988) called it, the engineering "habitus". Similarly, Nonaka (1994) suggested that there are communities of interaction in organisations, where knowledge is developed and shared. Where women are outside the usual roles for women, they may not necessarily share in that unspoken culture, within which the norms of commitment, together with the expectations of commitment are found.
- vi) **Continued gender stereotyping**, as indicated in Section 8.4.3.
- vii) **The tacit and subjective nature of the Commitment Assessment Process**, as indicated in Section 8.4 above.

The realist objective is to uncover the hidden processes by which the phenomenon is occurring. The above possible explanations, (other than iii) almost all have something to add to the phenomenon of women's perceived lesser commitment. **However, the strongest indicator is that of the Visibility of Commitment and its Assessment, where women's commitment meanings are less visible to managers even though they are more focused towards the organisation. This less visible evidence leads to a label of less committed, which when combined with Rosenbaum's career tournament model, leads to exclusion from the next tournament round for those who do not match the criteria in terms of commitment. Age and experience also count, so the parental career breaks may have a negative impact as well, until the career-ambitious males also start to take longer breaks.**



## **8.6 BRITISH/SWEDISH CONTRASTS**

### **8.6.1 Evidence from British and Swedish Engineering Managers**

This study provides empirical evidence suggesting a move towards a much more active, challenging and innovative composite commitment to the work, the organisation and the personal career, as indicated by responses, particularly from senior engineering management, dropping the desirability of continuance commitment. As Sagie & Elizur (1998) indicate in their discussion of cross-cultural transferability of concepts, whilst there may be some consensus about the components of a concept (such as commitment), the strength of each component varies across cultures.

The patterns for the “new challenges” of commitment indicate that the British women were sharing male meanings somewhat more than the Swedish women. The biggest national differences were on involvement and task delivery, where more than twice as many Swedish as British engineers emphasised the latter meaning. In contrast to responses from the Swedish companies, hours over the norm was a key differentiating feature of commitment in the British organisation for both genders, although more so for women. Women with family responsibilities may have problems for a few years where they are unable to commit to extra hours or some challenging assignments without previous planning, but as young fathers in dual career relationships are also likely to be in a similar situation in the up-and-coming generation, corporate attitudes are likely to change, or the companies may find it more difficult to attract or retain the best male or female engineering talent. The use of samples from these two countries provided contrast in the working environment in terms of social attitudes towards gender equality, and organisational and national support systems for parenting, and this showed up particularly on commitment as “hours over the norm”.

### **8.6.2 The Wider Context of British and Swedish Industrial Relations**

The high performance, high commitment HRM model is in evidence from the responses given. Certainly, the engineering managers in this sample from three leading British and Swedish engineering companies did not think of the continuance aspects when asked unprompted for their meanings of commitment. The meanings which these engineering managers surfaced indicate the performance aspects of commitment, the highly proactive, stretching kind of activities which seem to be the visible signs of commitment in high tech engineering. The three companies were all measuring individual performance. Only one of the Swedish companies had commitment specifically listed in the annual appraisal forms, but several of the commitment meanings given in this study feature in the checklists for all three companies. Both Swedish firms

included an assessment of awareness of individual contribution to the company, departmental and group goals. This reflects the Swedish respondents' higher concern for involvement, and comments by Frazee (1997) on the Swedish emphasis on co-operation between workers, management and unions, facilitated by a free flow of information about visions and corporate goals. The UK company director sponsor has recently commented that his company had recognised and addressed this issue of involving people more in the corporate vision and goals since the interviews took place in 1997.

The evidence in this study shows how commitment is now encompassing business awareness and customer orientation as well as quality. Guest (1998) indicated that there had been a shift towards a market and contract culture in the UK. Söderström (1993) commented on a recent Swedish shift towards service strategies, customer relations and quality. The shift was facilitated by more training, and understanding of corporate culture, motivation and work organisation, with line managers taking on more of the functions previously performed by personnel specialists, who would become internal professional consultants to line managers. Much of the performance assessment is undertaken by the line managers, so this present study has implications for line managers and HR specialists, indicating how commitment is recognised and assessed using the more visible signals of commitment, which may differ by gender, level and culture.

## **8.7 IMPLICATIONS FOR PRACTITIONERS**

### **8.7.1 Implications for Organisational Practice**

The identification in this thesis of the increasing need for balance in people's lives has a strong message for organisations using high performance/high commitment HRM policies. Whilst Marks (1977) indicated that people with high commitment tended to show high commitment to both work and family, the concern of these managers about the lack of balance in terms of commitment as hours over the norm indicates that there should be a willingness on the part of the employer to facilitate that balance so that the tensions do not have a negative impact on these very committed managers' lives, and their contribution to their organisation.

The evidence from the British/Swedish comparison indicates that national support for parents, and corporate policies of flexitime and parental breaks do not produce quick results, even in Sweden, in relation to attitudes towards women seeking maternity breaks. The message has to be put into practice at line manager level before ambitious women feel they can openly seek that flexibility. There are so few women as senior role models, and at present, these senior women have not had children, so there are no senior role models for young women who want both children and career. Given the commitment of the young women in getting to the threshold of management in the current male-dominated climate, it is a waste for the company in terms of lost training and investment if the women leave after showing such promise. For the women engineers, initially seeking a life-time's career in engineering, it may reinforce the view that they should not have chosen this field in the first place. So much effort is spent on recruitment of female engineering undergraduates, but the issue of what happens to those women in their thirties should also be considered.

The thesis has shown how commitment is measured in these three companies. Although there were concerns in UK-A that if criteria were specified for commitment, people would ensure that they fulfilled the criteria even if they were not committed, it does seem to be helpful when a breakdown of what is desired is given. Several of these managers commented on how useful it had been to review this topic with the researcher. Defining commitment would help to avoid the "gut feel" response, where managers assumed they all meant the same by commitment, without voicing what it meant. This thesis has shown that not all managers share the same view as to what commitment means. Clarification would help those assessing commitment, as well as those being assessed. A more open system would be advantageous, and counteract the "closed

promotion systems" description which was mentioned by several women engineers in this sample.

In a recent paper on empowerment, Argyris 1998) said that to increase commitment, top managers need to involve employees more to define work objectives, specifying how to achieve them, and setting stretching targets. In this study, respondents talking about involvement said that they felt more committed when they understood where their individual contribution fitted in the global objectives and results. Almost all the Swedes but only a third of the British engineers talked of involvement or engagement as part of the meaning of commitment. When the findings were presented to the UK-A director who arranged access, he commented that the analysis had correctly picked up the issue of individuals not being clear where their commitment fitted into the whole picture at a personal contribution level, and that they had since improved the communication of corporate goals down to the non-managerial professional engineers. This was in contrast to the Swedish companies where both organisations had already managed to make individuals feel really part of the corporate drive to a common goal as individuals rather than just a human resource. However, UK-A was a much larger and more hierarchical company, and hence there was much reliance on videos to get the messages across. The Swedish companies were also using videos, supplemented with more frequent director and chief engineer presentations, but it was clear from the visits to the sites that some of the Swedish top managers in their flatter companies were in much closer personal contact with their employees even at the professional engineer level.

This study indicates a link between commitment, challenge and innovative behaviour, coming from leading men and women engineering managers in Britain and Sweden. Senior managers are the custodians of the future, and their sense for creativity, challenge and innovation should be imparted to those below, along with a business awareness, a customer orientation and a response to the need for involvement from their subordinates. Engineers at the threshold of management feel commitment is being ready for a challenge, and middle managers (who mentioned this less often) are the key to the realisation of the potential of that commitment, through taking advantage of the enthusiasm for career growth and the desire for involvement. They can facilitate the development of their teams into more competent, committed engineers, providing the resource for sparking off creativity, as mentioned by some of the engineers. Lower level engineers need to develop the "added value" concept, as well as take responsibility for their own career development, but understand how their work fits into the wider, global aspects of the company, so that they can benefit from

seeking international postings, secondments to other divisions, and membership of international project teams, building up a portfolio of key experiences.

### **8.7.2 Implications for Women Engineers**

As this is the context in which women engineers wish to work and progress, these results may enable women to make a more informed choice as to the composition of their commitment to their organisations, knowing what their senior managers are seeking in terms of commitment, and what is likely to be rewarded. Little evidence was found to suggest that perceived lesser commitment was being used as a rhetoric by males to deliberately exclude women from senior levels. It was more a question of men and women understanding the needs and nature of the business, in the context of their own commitment, and making choices. Like the female engineers, male engineers were having to consider seriously the amount of commitment they could give to the company to keep a balance in their lives. The women engineers' composition of commitment with a stronger organisational orientation than that given by the male engineers provides evidence which should diminish male concerns about women's perceived lesser commitment to the organisation. However, the lesser visibility of their meanings of commitment may have contributed to that male view. The top women engineers in this study, providing role models for those below, with their combination of the virtuous, virtuoso, volunteer, and vanguard meanings of commitment, seemed to have overcome that hurdle already.

## 8.8 LIMITATIONS OF THE RESEARCH

This is an interview study of a relatively small number of respondents, but many of these engineers are in key positions in world-renowned companies, and their leaders set the trends in engineering management and its international professional community. It could therefore be argued that these descriptions of what “commitment” means in these organisations are likely to be found in other engineering organisations in these two countries. However, some of the issues around quality and availability in the sampled companies may be less strongly embedded in the commitment culture of other engineering companies making less complex, non-export type of products. So the mix and weighting of the different components of commitment may differ according to product and market. The Swedish responses did tend to reflect the distinctive Swedish participative management style and export-led industry on dimensions such as involvement and task delivery.

As Swedish women engineers had not progressed so far in management as their British counterparts in these leading engineering organisations, it was not possible to match pairs at director level, so the top manager category was biased in favour of males. More of the Swedish women had young children than the British women, so that may have biased the responses. The range of appropriate English vocabulary held by the Swedish respondents will also have introduced bias, but it was considered that this would be less than translator bias, a high standard of English was the norm from the Swedish engineers, and discussions were held in Swedish where necessary.

The cross-sectional design also presents problems, as a snapshot view is obtained on the day of the interview, when circumstances may have affected the responses. However, for a part-time doctoral study in two countries, a longitudinal design was not an option. The interviewees were sent the meanings rating form several months after the meetings, so bias may have been introduced by their personal circumstances when completing the form. They would have been sensitised to the deeper background of commitment through the interview discussion, so that responses might be different from those who had not participated in such an interview.

The researcher also influenced the findings, particularly through categorisation when seeking patterns in the data, and during the interviews when there may have been gender bias due to the female gender of the researcher, and elite bias due to the high level introductions. However, as the concluding part of Chapter Four indicated, efforts have been made to enhance the rigour of the study. The

respondents were asked to rate the relative importance of findings, and the researcher had feedback meetings with the company sponsors, providing triangulation of the data and the analysis.

## 8.9 FURTHER RESEARCH

Further research is needed to investigate the meaning of commitment in non-engineering contexts, where there may be a different composition of commitment characteristics. It is anticipated that the meanings identified in this study would be relevant for managers in other male-dominated organisations with well-educated employees, whether in engineering or other work. It would also be useful to add samples from US companies in the aerospace field, to see whether there were closer responses to the Mowday et al (1979) conceptualisation of commitment in that country. (Access to two such companies has already been agreed.)

A useful development from this research would be the drawing up of a new instrument to measure commitment in organisations with professional employees, to reflect the way managers use the term, which as this research has shown, is substantially different from the questions in the commonly used OCQ. However, until the applicability of these findings to non-engineering contexts is indicated by further work, that would be limited to organisations similar to those in this study. The evidence in this study will provide a rich foundation for later surveys in this field to test the commitment of men and women using the new instrument, to see whether the gender and managerial level differences hold in a larger scale study.

Little research seems to have been reported in the management field about the different upwards influence strategies used by men and women. This seems a promising area for further research, as the trend for flatter companies leads to managers having ever larger numbers of subordinates to assess.

Even though the process seems to be taking a very long time even in Sweden, this study suggests that the acceptance by career successful men of parental support systems such as paternity leave and part-time working may lead to the alleviation of negative attitudes towards women who have to take maternity leave and often seek part-time work for a short period in a lifetime. It may already be happening in the public sector in Sweden, where there are more women in senior management, but in the private sector, it is taking longer. Longitudinal surveys into this issue in this period of transition in Europe would provide evidence which could be useful to policy makers, to work towards a socially fairer system of commitment assessment of men and women at work.



### **8.10 POSTSCRIPT**

In conclusion, this thesis has met its objectives. It has made a contribution in two fields with a “rich picture” analysis reinforced by ratings from respondents, and its findings should be relevant to practitioners as well as researchers. Significant insights have been gained into senior, middle and junior managers’ meanings of commitment, as well as the gender differences which were the original focus, and there are strong indications of an explanatory factor of visibility of commitment for women’s perceived lesser commitment at work.

This researcher has also met her objectives, completing this task during a period of considerable change at work. The learning experience has been invaluable, and the supportive research community at Cranfield has contributed much to the completion of this thesis. It is hoped that the findings of the thesis will inform management practice to help other women and men to manage their careers with commitment which is recognised, and balanced to the advantage of both organisations and individuals.

## REFERENCES

- Acker, J. (1992) "Gendering Organizational Theory". In Albert J. Mills & Peta Tancred (Eds) *Gendering Organizational Theory*, California: Sage, 248-60
- Alban-Metcalf, B. & West, M.A. (1991) "Women managers". In Firth-Cozens, J. & West, M.A. (Eds.) *Women at Work*, Open University, Buckingham, 154-171.
- Alimo-Metcalf, B. (1994) "Waiting for fish to grow feet!". In Tanton, M. (Ed.) *Women in Management*, Routledge, London, 27-45.
- Alimo-Metcalf, B. (1995) "Leadership and Assessment". In Vinnicombe, S. & Colwill, N.C. (Eds.) *The Essence of Women in Management*, Prentice Hall, Hemel Hempstead, 92-109.
- Allen, T.D. & Rush, M.C. (1998) "The effects of organisational citizenship behavior on performance judgements: A field study and a laboratory experiment", *Journal of Applied Psychology*, 83 (2) 247-260.**
- Allen, T.D., Russell, J.E.A. & Rush, M.C. (1994), "The effects of gender and leave of absence on attributions for high performance, perceived organizational commitment and allocation of organizational rewards", *Sex Roles*, 31, pp.443-464.
- Anderson, N. & Schalk, R. (1998) "Editorial: The psychological contract in retrospect and prospect", *Journal of Organizational Behavior*, 19, 637-647.
- Argyris, C. (1960) *Understanding Organizational Behaviour*, Tavistock Publications, London.
- Argyris, C. (1998) "Empowerment: The Emperor's new clothes", *Harvard Business Review*, May-June, 98-105.
- Arnold, J. & Nicholson, N. (1991) "Construing of self and others at work in the early years of corporate careers", *Journal of Organizational Behavior*, 12, 621-639.
- Arthur, M.B. & Kram, K.E. (1989) "Reciprocity at Work: The Separate yet Inseparable Possibilities for Individual and Organizational Development". In Arthur, M.B., Hall, D.T. & Lawrence, B.S. (Eds) *Handbook of Career Theory*, Cambridge: Cambridge University Press, 292-312
- Asplund, G. (1988) *Women Managers: Changing Organizational Cultures*, John Wiley, London
- Atkinson, P. & Delamont, S. (1990) "Professions and Powerlessness: Female Marginality in the Learned Occupations" *Sociological Review*, 38 (1) 90-110
- Aven, F.F., Parker, B. & McEvoy, G. (1993), "Gender and attitudinal commitment in organizations: a meta-analysis", *Journal of Business Research*, 26, pp. 63-73.
- Bailyn, L. (1993) *Breaking the Mold: Women, Men and Time in the New Corporate World*, Free Press, New York
- Bailyn, L. (1984) "Issues of Work and Family in responding to Social Diversity". In Arthur, M.B., Bailyn, L., Levinson, D.J. & Shepard, H.A. (Eds) *Working with Careers*. New York: Center for Research in Career Development, Columbia University. 75-98
- Bandura, A. (1977) "Self-Efficacy: Towards a unifying theory of behavioral change". *Psychological Review*, 84, 191-215.
- Barry, R., Bosworth, D. & Wilson, R. (1997) *Engineers in Top Management*, Institute for Employment Research Report, Warwick.
- Barthorpe, F. (1995) "Equal opportunities, equal survival, not political correctness", *Professional Engineering*, 8 (16) 16-17.
- Bartlett, C.A. & Ghoshal, S. (1997) "The myth of the generic manager: New personal competencies for new management roles", *California Management Review*, 40 (1) Fall.
- Baruch, Y. (1998), "The rise and fall of organizational commitment", *Human Systems Management*, 17, pp. 135-143.
- Becker, T.E. & Billings, R.S. (1993) "Profiles of commitment: an empirical test", *Journal of Organizational Behavior*, 14, 177-190.
- Becker, G. (1962) "Investment in human capital: A theoretical analysis", *Journal of Political Economy*, 70 (Supp), 9-44.
- Bencivenga, D. (1997) "Employers and Workers come to Terms", *HRMagazine*, June, 91-97
- Benkhoff, B. (1997a) "Ignoring commitment is costly: New approaches establish the missing link between commitment and performance", *Human Relations*, 50 (6) 701-726.

- Benkhoff, B. (1997b) Disentangling organisational commitment: The dangers of the OCQ for research and policy. *Personnel Review* 26 (1/2) 114-131
- Berner, B. (1982) "Kvinnor, kunskap och makt i teknikens värld", *Kvinnovetenskapligtidskrift*, 3 (3) 25-39 ("Women, knowledge and power in the technical world")
- Berner, B. (1992) "Engineering identity and economic change: Engineers in Swedish society 1850-1990", *Polhem*, 10, 131-160.
- Bhaskar, R. (1989) *Reclaiming Reality: A Critical Introduction to Contemporary Philosophy*, Verso: London
- Blaikie, N. (1993) *Approaches to Social Enquiry*, Polity Press: Oxford
- Blair, T. (1996) "Why Manufacturing Matters", *Cranfield University Annual Report to Court*, 1996/97, Cranfield: 34-35
- Blau, G.J. (1985) The measurement and prediction of career commitment, *Journal of Occupational Psychology*, 58, 277-288.
- Bolino, M.C. (1999) "Citizenship and impression management: Good soldiers or good actors?", *Academy of Management Review*, 24 (1) 82-98.
- Bosworth, D.L. & Wilson, R.A. (1991) "The role of scientists and engineers in the process of technological change", *Engineer Today, Manager Tomorrow Conference*, Royal Aeronautical Society, London.
- Bourdieu, P. (1988) *Homo Academicus*, Cambridge: Polity.
- Boyacigiller, N. & Adler, N. (1991) "The parochial dinosaur: Organisational science in a global context", *Academy of Management Review*, 16, 262-290.
- Brewer, M.B. & Miller, N. (1984) "Beyond the contact hypothesis: Theoretical perspectives on desegregation". In Miller, N. & Brewer, M.B. (Eds.) *Groups in Contact*, Academic Press, Orlando FL, 281-302.
- Brewster, C., Lundmark, A. & Holden, L. (1993), '*A Different Tack*': *An Analysis of British and Swedish Management Styles*, Studentlitteratur, Lund, Sweden.
- Brewster, C., Mayne, L., Tregaskis, O. et al (1996), *Working time and contract flexibility in the EU*, Report for the European Commission, Cranfield.
- Brief, A. P. & Motowidlo, S.J. (1986) "Prosocial organizational behaviors", *Academy of Management Review*, 11 (4) 710-725.
- Brown, R. (1996) "Organizational Commitment: Clarifying the Concept and Simplifying the Existing Construct Typology", *Journal of Vocational Behavior*, 49, 230-251
- Buchanan, B. (1974) "Building organizational commitment: The socialization of managers in work organizations", *Administrative Science Quarterly*, 19, 533-546.
- Burke, R.J. & Davidson, M.J. (1994) "Women in management: Current research issues". In Davidson, M.J. & Burke, R.J. (Eds.) *Women in Management*, Paul Chapman Publishing, London. 1-10.
- Burke, P. & Reitzes, D.C. (1991) "An Identity Theory Approach to Commitment", *Social Psychology Quarterly*, 54 (3) 239-251.**
- Burrell, G. & Morgan, G. (1979) *Sociological Paradigms and Organisational Analysis*, Heinemann, Aldershot
- Cames, I. (1998) "A study of the leadership styles of female and male managers in 10 different nationality banks in Luxembourg, using the Personal Attributes Questionnaire and Personal Interviews", *Unpublished PhD Thesis*, Cranfield University
- Catalyst (1992) *Women in engineering: An untapped resource*, Catalyst, New York, N.Y.
- Cauldwell, D. & O'Reilly, C. (1982) "Responses to failure: the effects of choice and responsibility on impression management", *Academy of Management Journal*, 25 121-136.
- Causer, G. & Jones, C. (1996) "Management and the control of technical labour", *Work, Employment & Society*, 10 (1), 105-123.
- Chusmir, L.H. (1982) "Job Commitment and the Organizational Woman", *Academy of Management Review*, 7 (4) 595-602
- Cockburn, C. (1991) *In the way of Women*, London: MacMillan
- Cockburn, C. (1992) "Technology, Production and Power", in G. Kirkup & L.S. Keller (Eds) *Inventing Women: Science, Technology and Gender*, Cambridge: Polity Press

- Cohen, A. (1999) "Relationships among five forms of commitment: an empirical assessment", *Journal of Organizational Behavior*, 20, 285-308.**
- Collins (1986) *Collins English Dictionary*, Collins, London.
- Cook, J. & Wall, T. (1980), "New work attitude measures of trust, organizational commitment and personal needs non-fulfillment", *Journal of Occupational Psychology*, 53, pp. 39-52.
- CRANE NET (1995) CRANE-NET Report, Cranfield School of Management, Cranfield.**
- Crew Report (1996) *Second European Charter to Promote Women in Politics and Society*, European Commission Report, 6-7
- Dalton, G.W., Thompson, P.H. & Price, R.L. (1977), "The four stages of professional careers - a new look at performance by professionals", *Organizational Dynamics*, 6 (1) pp. 19-42.
- Davidson, M. J. & Burke, R.J. (Eds) (1994) *Women in Management*, Paul Chapman Publishing, London.
- Davidson, M.J. & Cooper, C. (1992) *Shattering the Glass Ceiling*, Paul Chapman Publishing, London.
- Davidson, M.J. & Cooper, C. (Eds.) (1993) *European Women in Business and Management*, Paul Chapman Publishing, London.
- Davies, J. & Easterby-Smith, M. (1984) "Learning and developing from managerial experience", *Journal of Management Studies*, 21 (2) 169-183.
- Day, A.L. & Colwill, N.C. (1995) "Work and the family". In Vinnicombe S. & Colwill, N.C. (Eds.) *The Essence of Women in Management*, Prentice Hall, London, 35-46.
- DeCotiis, T.A. & Summers, T.P. (1987) "A path analysis of a model of the antecedents and consequences of organizational commitment", *Human Relations*, 40 (7) 445-470.
- Denzin, N. K. & Lincoln, Y. S. (1994) *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA.
- Derr, C.B. & Laurent, A. (1989) "The internal and external career: A theoretical and cross-cultural perspective". In Arthur, M.B., Hall, D.T. & Lawrence, B.S. (Eds) *Handbook of Career Theory*, Cambridge: Cambridge University Press, 454-474.
- Devine, F. (1991) "Women in the engineering and science professions: employers' policies and practices", *The Woman Engineer*, 14, 14.
- Devine, F. (1992), "Gender segregation in the engineering and science professions: a case of continuity and change", *Work, Employment and Society*, 6 (4) pp. 557-575.
- Dickens, L. (1997) "What HRM means for gender equality", *Human Resource Management Journal*, 8 (1) 23-40.
- Dodd-McCue, D. & Wright, G.B. (1996) "Men, Women and Attitudinal Commitment: The Effects of Workplace Experiences and Socialisation", *Human Relations*, 49 (8) 1065-1091
- Doktor, R., Tung, R.L. and Von Glinow, M.A. (1991) "Incorporating international dimensions in management theory building", *Academy of Management Review*, 16 (2) 259-261.
- Dougherty, D. (1996) "Organizing for Innovation", in S R Clegg, C Hardy & W R Nord (Eds) *Handbook of Organization Studies*, London: Sage: 424-39
- Dulebohn, J.H. & Ferris, G.R. (1999) "The role of influence tactics in perceptions of performance evaluations' fairness", *Academy of Management Journal*, 42 (3) 288-303
- Durkheim, E. (1953: 91) *Sociology and Philosophy*. New York: Free Press.
- Eagly, A.H. and Johnson, B.T. (1990) "Gender and leadership style: A meta-analysis", *Psychological Bulletin*, 108 (2) 223-256.
- Easterby-Smith, M., Thorpe, R. & Lowe, A. (1991) *Management Research: An Introduction*. Sage: London
- Eisenberger, R., Fasolo, P. & Davis-LaMastro, V. (1990) "Perceived organizational support and employee diligence, commitment and innovation", *Journal of Applied Psychology*, 75 (1) 51-59.
- Eisenhardt, K. M. (1989) "Building Theories from Case Study Research", *Academy of Management Review*, 14 (4) 532-550
- Engineering Council (1995), "Competence and commitment: the Engineering Council's proposals for a new system of engineering formation and registration", *Engineering Council Report*, London.
- Engineering Council (1997/8) *Standards and routes to registration - SARTOR, Part 1*, Engineering Council, London.

- EIRR: Engineering Industrial Relations Review (1995) "Parental leave in Europe", *European Industrial Relations Review*, 262, November.
- Engineering Workforce Commission (1999) *Engineering and Technology Enrollments – Fall, 1998*. American Association of Engineering Societies Inc, USA.
- Etzioni, A. (1961) *Modern Organizations*, Prentice Hall, Englewood Cliffs NJ.
- European Commission (1997) "Equal Opportunities for Women and Men in the European Union, 1996", Office for Official Publications of the European Communities, Luxembourg
- European Commission (1999) "Equal Opportunities for Women and Men in the European Union, Annual Report 1998", Office for Official Publications of the European Communities, Luxembourg
- Evetts, J. (1993), "Women and management in engineering: the glass ceiling for women's careers", *Women in Management Review*, 8 (7) pp. 19-25.
- Evetts, J. (1994a), "Career and motherhood in engineering: cultural dilemmas and individualistic solutions", *Journal of Gender Studies*, 3 (2) pp. 177-185.
- Evetts, J. (1994b) "Women and Career in Engineering: continuity and change in the organisation", *Work, Employment & Society*, 8 (1) 101-112
- Evetts, J. (1994c) *Women & Career: Themes and issues in advanced industrial societies*, Longmans, Harlow.
- Evetts, J. (1996) *Gender and Career in Science and Engineering*, Taylor & Francis: London.
- Evetts, J. (1997) "Women and careers in engineering: management changes in the work organization", *Women in Management Review*, 12 (6) 228-233
- Evetts, J. (1998) "Managing the technology but not the organization: Women and career in engineering", *Women in Management Review*, 13 (8) 283-290.
- Fandt, P.M. & Ferris, G.W. (1990) "The management of information and impressions: when employees behave opportunistically", *Organizational Behavior and Human Decision Processes*, 45, 140-158.
- Feldman, J.M. (1981) "Beyond Attribution Theory: Cognitive Processes in Performance Appraisal" *Journal of Applied Psychology*, 66 (2) 127-148
- Feldman 86 A Note on the Statistical Correction of Halo Error, *Journal of Applied Psychology*, 71 (1) 173-176.**
- Fellowship of Engineering (1989) *"The education and training of chartered engineers for the 21<sup>st</sup> century"*, Fellowship of Engineering, London.
- Fenton-O'Creevy, M. (1998) "Employee involvement and the middle manager: evidence from a survey of organizations", *Journal of Organizational Behavior*, 19, 67-84.
- Fielding, N. (1993) "Qualitative Interviewing". In Gilbert, N. (Ed.) *Researching Social Life*, Sage, London, pp 135-153
- Fielding, N.G. & Lee, R.M. (1998) *Computer Analysis and Qualitative Research*, Sage, London.
- Fineman, S.(1996) "Emotion and Organizing", in S R Clegg, C Hardy & W R Nord (Eds) *Handbook of Organization Studies*, London: Sage: 543-564
- Fletcher, C. & Williams, R. (1985) *Performance Appraisal and Career Development*, Hutchinson, London
- Frazee, V. (1997), "Building relationships in Sweden", *Workforce*, 76 (10) p. S19.
- Friedman, S.D., Christensen, P. & DeGroot, J. (1998) "Work and Life: The end of the zero-sum game", *Harvard Business Review*, Nov-Dec, 119-129.
- Gaertner, K.N. & Nollen, S.D. (1989) "Career experiences, perceptions of employment practices, and psychological commitment to the organisation", *Human Relations*, 42 (11) 975-991.
- Gale, A. & Cartwright, S. (1995) "Women in project management: Entry into a male domain: A discussion on gender and organisational culture, Part 1" *Leadership and Organization Development*, 16 (2) 3-8.
- Gallie, D. & White, M. *Employee Commitment and the Skills Revolution: First Findings from the Employment in Britain Survey*, Policy Studies Institute, London.
- Geertz, C. (1973), *The Interpretation of Cultures: Selected Essays*, Basic Books Inc, New York.

- Gerpott, T.J., Domsch, M. & Kettler, R. (1988), "Career orientations in different countries and companies: an empirical investigation of West German, British and US industrial R&D professionals", *Journal of Management Studies*, 25 (5) pp. 439-462.
- Gilligan, C. (1982) *In a Different Voice*, Harvard University Press, Cambridge.
- Glaser, B. (1994) *Emergence versus Forcing: Basics of Grounded Theory Analysis*, Sociology Press, San Francisco
- Glaser, B. & Strauss, A. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Chicago: Aldine
- Glick, W.H. (1985) "Conceptualizing and measuring organizational and psychological climate: Pitfalls in multi-level research", *Academy of Management Review*, 10 (3) 601-616.
- Goffman, E. (1959) *The Presentation of Self in Everyday Life*, Garden City, N.Y. Doubleday Anchor.
- Gordon, J.R. and Whelan, K.S. (1998) "Successful professional women in mid-life: how organisations can more effectively understand and respond to the challenges", *Academy of Management Executive*, 12 (1) 8-27.
- Gouldner, A. (1958) Cosmopolitans and socials: Towards an analysis of latent social roles. *Administrative Science Quarterly*. 2, 281-316
- Gowler, D. & Legge, K. 1981. Negation, Synthesis and Abomination in Rhetoric. In C. Antaki (Ed.) *The Psychology of Ordinary Explanations of Social Behaviour*. London: Academic Press.
- Gowler, D. & Legge, K. (1983), "The meaning of management and the management of meaning", in Earl, M. (Ed.) *Perspectives in Management*, Oxford University Press, Oxford, p. 119.
- Gowler, D. & Legge, K. (1989) "Rhetoric in bureaucratic careers: managing the meaning of management success." In: M. B. Arthur, D. T. Hall and B. S. Lawrence (Eds) *Handbook of Career Theory*, Cambridge University Press: Cambridge. 437-453
- Graen, G.B. & Scandura, T.A. (1987) "Towards a theory of dyadic organizing". In L.L.Cummings & B.M.Staw (Eds.) *Research in Organizational Behavior*, 9, pp 175-208. Greenwich, CT: JAI Press.
- Gray, J. (1992) *Men are from Mars, Women are from Venus*, London: Thorsons
- Greene, J.C. (1994) "Qualitative program evaluation: Practice and promise". In Denzin, N. K. and Lincoln, Y. S. (Eds.) *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA
- Greenhaus, J.H. & Beutell, N. (1985) "Sources of Conflict Between Work and Family Roles", *Academy of Management Review*, 10 (1) 76-88.
- Guest, D. E. (1992), "Employee commitment and control", in Hartley, J.F. and Stephenson, G.M. (Eds.) *Employment Relations*, Blackwells, Oxford, pp. 111-135.
- Guest, D.E. (1997) "Human Resource Management and performance: a review and research agenda" *International Journal of Human Resource Management*, 8 (3) pp. 263-276
- Guest, D. E. (1998a), "Beyond HRM: commitment and the contract culture", in Sparrow, P. and Marchington, M. (Eds.) *Human Resource Management: The New Agenda*, FT Pitman Publishing, London, pp. 37-51.
- Guest, D. E. (1998b) "Is the psychological contract worth taking seriously?", *Journal of Organizational Behavior*, 19, 649-664.
- Gunz, H. (1989) "The dual meaning of managerial careers: organizational and individual levels of analysis", *Journal of Management Studies*, 26 (3) 225-250.
- Hakim, C. (1996) *Key Issues in Women's Work: Female Heterogeneity and the Polarisation of Women's Employment*, Athlone, London.
- Hall, D.T. (1972) "A model of coping with role conflict: the role behaviour of college educated women", *Administrative Science Quarterly*, 17, 471-486.
- Hall, D.T. (1984) "Loose threads and life fabrics: An extended metaphor about personal, professional and organisational lives". In Lee, M.D. & Kanungo, R.N. (Eds.) *Management of Work and Personal Life*, Praeger, New York.
- Harding, S. (1986) *The Science Question in Feminism*, Open University Press, Milton Keynes.
- Harris, H. (1997) "Women in international management: an examination of the role of home country selection processes in influencing the number of women in international management positions", *Unpublished PhD thesis*, Cranfield University.

- Harris, H. (1998) "Women in international management: The times they are a changing?", *International Review of Women and Leadership*, 4 (2), 6-14.
- Hart, C. (1998) *Doing a Literature Review*, Sage, London.
- Hatch, M.J. (1993) "The dynamics of organizational culture", *Academy of Management Review*, 18 (4) 657-693.
- Hartley, J. (1994) "Case Studies in Organizational Research". In Cassell, C. & Symon, G.(Eds.) *Qualitative Methods in Organizational Research: A Practical Guide*, Sage, London, 208-229.
- Heilman, M. (1983) "Sex bias in work settings: The Lack of Fit model", *Research in Organizational Behavior*, 5, 269-298.
- Heisler, W.J. & Gemmill, G.R. (1978) "Executive and MBA student views of corporate promotion practices: A structural comparison", *Academy of Management Journal*, 21 731-737
- Herriot, P. (1998) "The role of the HR function in building a new proposition for staff". In Sparrow, P. & Marchington, M. (Eds.) *Human Resource Management: The New Agenda*, Financial Times/Pitman Publishing, London. 106-116.
- Herriot, P., Manning, W.E.G. & Kidd, J.M. (1997) "The content of the psychological contract", *British Journal of Management*, 8, 151-162.
- Herriot, P. & Pemberton, C. (1995) *New Deals: The Revolution in Management Careers*, John Wiley & Sons, Chichester.
- Herzberg, F. (1968) "One more time. How do you motivate employees?", *Harvard Business Review*, 46, 53-62.
- HESA (1995) HESA Data Report: Students in Higher Education Institutions, HESA, London.
- Hill, G.W. (1982) "Group versus individual performance: Are N+1 heads better than one?", *Psychological Bulletin*, 91 (3) 517-539.
- Hill, R.J. (1991) "What is engineering?" *Engineer Today – Manager Tomorrow Conference*, Royal Aeronautical Society, London.
- Hiltrop, J.M. (1998) "Preparing people for the future: The next agenda for HRM", *European Management Journal*, 16 (1) 70-78.
- Hinton, K. (1983) "Women and science", *Bulletin of Science, Technology and Society*, 3 (4) 313-401.
- HMSO (1994) *The Rising Tide: A Report on Women in Science, Engineering and Technology*, HMSO, London.
- Hofstede, G. (1980/1984), *Culture's Consequences: International Differences in Work-Related Values*, Sage, London.
- Hofstede, G. (1993) "Cultural constraints in management theories", *Academy of Management Executive*, 7 (1) 81-94.
- Hofstede, G. (1998) "Identifying organizational subcultures: An empirical approach", *Journal of Management Studies*, 35 (1) 1-12.
- Holden, L. (1996), "HRM and employee involvement in Britain and Sweden: A comparative study", *International Journal of Human Resource Management*, 7 (1) pp. 59-81.
- Holt Larsen, H. (1996), "In search of management development in Europe: from self-fulfilling prophecies to organizational competence" *International Journal of Human Resource Management*, 7 (3) pp 657-676.
- Hood, J.N. & Koberg, C.S. (1994) "Patterns of differential assimilation and acculturation for women in business organizations", *Human Relations*, 47 (2) 159-181.
- Horgan, D.D. (1989) "A Cognitive Learning Perspective on Women Becoming Expert Managers", *Journal of Business and Psychology* 3 (3) 299-313
- Hrebiniak, L.G. & Alutto, J.A. (1972) "Personal and role related factors in the development of organisational commitment", *Administrative Science Quarterly*, 17, 555-572
- Ibarra, H. (1992) "Homophily and differential returns: Sex differences in network structure and access in an advertising firm", *Administrative Science Quarterly* 37, 422-447.
- Ibarra, H. (1995) "The relationship paradox: Gender, homophily and the strength of network ties", 12<sup>th</sup> *EGOS Colloquium*, Istanbul.
- Igarria, M., Greenhaus, J.H. & Parasuraman, S. (1991) "Career orientations of MIS Employees: An empirical analysis." *MIS Quarterly*, June, 151-169

- Igbaria, M. and Siegel, S.R.(1992) "An Examination of the Antecedents of Turnover Propensity of Engineers: An Integrated Model", *Journal of Engineering and Technology Management*, 9, 106-126
- Ilgel, D.R. & Feldman, J.M. (1983) "Performance appraisal: A process focus". In L.L. Cummings and B.M.Staw (Eds) *Research in Organizational Behavior*, 5, Greenwich: JAI Press, 141-197
- Ingenjörsvetenskapsakademien. (1993), *Ingenjörer i livslångt lärande, (Engineers in lifelong learning: A study carried out by the Swedish Engineering Academy for the Swedish Government Department of Education)*
- IPD. (1995), *Personnel and the Line: Developing the New Relationship*, Institute for Personnel Development, London.
- Jagacinski, C.M. (1987) "Engineering Careers: Women in a male dominated world", *Psychology of Women Quarterly*, 11, 97-110
- Jary, D. & Jary, J. (1991) *Dictionary of Sociology*, London: Collins.
- Joyce, W.F. and Slocum, J.W. (1984) "Collective climate: Agreement as a basis for defining aggregate climates in organizations", *Academy of Management Journal*, 27 (4) 721-742.
- Kaldenberg, D.O., Becker, B.W. & Zvonkovic, A. (1995) "Work and Commitment among young professionals: A study of male and female dentists". *Human Relations*. 48 (11) 1355-1377
- Kamoche, K. (1995) "Rhetoric, Ritualism and Totemism in Human Resource Management", *Human Relations*, 48 (4) 367-385
- Kanter, R-B.M. (1977) *Men and Women of the Corporation*, Basic Books, New York.
- Kanungo, R. (1982) *Work Alienation: An Integrative Approach*. New York: Praeger.
- Keat, R. & Urry J. (1975) "Realist philosophy of science", in Keat, R. and Urry J. (Eds.) *Social Theory as Science*, Routledge & Kegan Paul, 27-45
- Kelle, U. (Ed.) (1995) *Computer Aided Qualitative Data Analysis*, Sage, London.**
- Kerr, S. and Von Glinow, M.A. (1977) "Issues in the Study of "Professionals" in Organizations: The Case of Scientists and Engineers", *Organizational Behavior and Human Performance*, 18 329-345.
- Kets de Vries, M.F.R. & Balzs, K. (1999) "Creating the "Authentizotic" organization: Corporate transformation and its vicissitudes – A rejoinder", *INSEAD Working Paper 99/02/ENT*, Insead, Fontainebleau.
- Kilduff, M. & Day, D.V. (1994) "Do chameleons get ahead? The effects of self-monitoring on managerial careers", *Academy of Management Journal*, 37 (4) 1047-1060
- Kirchmeyer, C. (1993) "Nonwork-to-work spillover: A more balanced view of the experiences and coping of professional women and men", *Sex Roles*, 28 (9/19) 531-552.
- Kirchmeyer, C. (1995) "Managing the work-nonwork boundary: An assessment of organisational responses", *Human Relations*, 48 (5) 515-536.
- Kirchmeyer, C. (1998) "Determinants of managerial career success: Evidence and explanation of male/female differences", *Journal of Management*, 24 (6) 673-692.
- Korsgaard, M.A., Meglino, B.M. & Lester, S.W. (1996) "The effect of other-oriented values on decision-making: A test of propositions of a theory of Concern for Others in organizations", *Organizational Behavior and Human Decision Processes*, 68 (3) 234-245.
- Kotter, J.P. (1973) "The Psychological Contract", *California Management Review*, 15, 91-99.
- Kunda, G. (1992) *Engineering Culture: Control and Commitment in a High-Tech Corporation*, Philadelphia: Temple University Press
- Kvande, E. & Rasmussen, B. (1991) *Nye Kvinneliv: Kvinner i Menns Organisasjoner*, Oslo: Ad Notam, Gyldendal
- Lam, A. (1996) "Engineers, management and work organisation: A comparative analysis of engineers' work roles in British and Japanese electronics firms", *Journal of Management Studies*, 33 (2) 183-212.
- Landy, F.J. & Farr, J.L. (1983) *The Measurement of Work Performance: Methods, Theory and Applications*, Academic Press, New York.
- Larwood, L. & Gutek, B.A. (1987) "Working towards a theory of women's career development". In Gutek, B.A. & Larwood, L. (Eds.) *Women's Career Development*, Sage, Beverley Hills, 170-183.



- Lawler, E.J. (1992) "Affective attachment to nested groups: A choice process theory", *American Sociological Review*, 57, 327-339.**
- Lawrence, P. (1988) "In another country". In Bryman, A. (Ed.) *Doing Research in Organizations*, Routledge, London, 96-107.
- Lawrence, P. & Spytbey, T. (1986) *Management and Society in Sweden*, Routledge, London.
- Layder, D. (1993) *New Strategies in Social Research*, Polity Press: Oxford
- Layder, D. (1998) *Sociological Practice: Linking Theory and Social Research*, Sage: London
- Leary, M.R. & Kowalski, R.M. (1990) "Impression management: A literature review and two-component model", *Psychological Bulletin*, 107, 34-47.
- Lee, G.L. & Smith, C. (1992) "British engineers in context". In Lee, G.L. & Smith, C. (Eds.) *Engineers and Management: International Comparisons*, Routledge, London.
- Levinson, H., Price, C.R., Munden, K.J., Mandl, H.J. & Solley, C.M. (1962) *Men, Management and Mental Health*, Harvard University Press, Cambridge.
- Levinson, D.J. (1978) *The Seasons of a Man's Life*, Knopf, New York.
- Liden, R.C. & Mitchell, T.R. (1988) "Ingratiation Behavior in Organizational Settings", *Academy of Management Review*, 13 (4) 572-587.
- Liff, S. (1999) "Diversity and equal opportunities: room for a constructive compromise", *Human Resource Management Journal*, 9 (1) 65-75.
- Liff, S. & Ward, K. (1998) "Distorted views through the glass ceiling: The construction of women's understandings of promotion and senior management positions", *1<sup>st</sup> Gender, Work & Organisation Conference*, UMIST, Manchester.
- Liff, S., Worrall, L. & Cooper, C. (1997) "Attitudes to women in management: an analysis of West Midlands businesses", *Personnel Review*, 26 (3) 152-173.
- Lincoln, Y. & Guba, E.G. (1985) *Naturalistic Inquiry*, Sage: Beverly Hills, CA
- Lofland, J. & Lofland, L.H. (1995), *Analysing Social Settings*, Wadsworth, Belmont CA.
- Louis, M. R. (1983) "Organisations as culture-bearing milieux". In Pondy, L.R., Frost, P.J., Morgan, G. & Dandridge, T.C. (Eds.) *Organizational Symbolism*, JAI Press, Greenwich, CT. 23-44.
- Lukes, S. (1974) *Power: A Radical View*, MacMillan, Basingstoke.
- Luthans, F., Baack, D. & Taylor, L. (1987) "Organizational commitment: Analysis of antecedents", *Human Relations*, 40 (4), 219-236.
- Maddie, S. & Kobasa, S. (1984) *The Hardy Executive: Health under Stress*, Dow Jones-Irwin, Homewood.**
- Maniero, L.A. (1986) "Early Career Factors that differentiate Technical Management Careers from Technical Professional Careers", *Journal of Management* 12 (4) 561-575
- Mainiero, L.A. (1994a) "Getting anointed for advancement: The case of executive women", *Academy of Management Executive*, 8 (2) 53-67.
- Mainiero, L.A. (1994b) "On breaking the glass ceiling: The political seasoning of powerful women executives", *Organizational Dynamics*, 22 (4) 5-20.
- Marks, S. (1977) "Multiple roles and role strain", *American Sociological Review*, 42 (December) 921-936.
- Marsden, P.V., Kalleberg, A.L. & Cook, C.R. (1993) "Gender Differences in Organizational Commitment: Influences of Work Positions and Family Roles", *Work and Occupations*, 20 (3) 368-390
- Marshall, J. (1984) *Women managers: Travellers in a male world*, John Wiley, Chichester
- Maslow, A.H. (1943) "A theory of human motivation", *Psychological Review*, 50.
- Mathieu, J.E. & Zajac, J.M. (1990), "A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment", *Psychological Bulletin*, 108 (2) pp. 171-194.
- McClelland, D.C. (1961) *The Achieving Society*, The Free Press, New York.
- McIlwee, J.S. & Robinson, J.G. (1992) *Women in Engineering: Gender, Power and Workplace Culture*, University Press, New York, Albany.
- McRae, S., Devine, F. & Lakey, J. (1991) *Women into Science and Engineering*, Policy Studies Institute, London.
- Meyer, J.P. & Allen, N.J. (1990) "Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations". *Journal of Applied Psychology*, 75 (6) 710-720.

- Meyer, J.P., Allen, N.J. & Smith, C.A. (1993), "Commitment to organizations and occupations: extension and test of a three-component conceptualization", *Journal of Applied Psychology*, 78 (4) pp. 538-551.
- Meyer, J.P. & Allen, N.J. (1997) *Commitment in the Workplace: Theory, Research and Application*, London: Sage.
- Miles, M.B. & Huberman, A.M. (1994), *Qualitative Data Analysis: An Expanded Sourcebook*, Sage, London.
- Mintzberg, H. (1979) *The Structuring of Organizations*, Englewood Cliffs, N.J.: Prentice-Hall
- Morgan, G. & Smircich, L. (1980) "The case for qualitative research", *Academy of Management Review*, 5 (4) 491-500
- Morris, T., Lydka, H. & Fenton O'Creevy, M. (1993) "Can commitment be managed? A longitudinal analysis of employee commitment and human resource policies", *Human Resource Management Journal*, 3 (3), 21-42
- Morrison, A.M., White, R.P., Van Velsor E. and the Center for Creative Leadership (1987) *Breaking the Glass Ceiling*, Addison-Wesley, Reading MA.
- Morrison, E.W. (1994) "Role definitions and organizational citizenship behavior: The importance of the employee's perspective", *Academy of Management Journal*, 37 (6) 1543-1567.
- Morrison, E.W. & Robinson, S.L. (1997) "When employees feel betrayed: a model of how psychological contract violation occurs", *Academy of Management Review*, 22, 226-256.
- Morrow, P.C. (1983), "Concept redundancy on organisational research: the case of work commitment", *Academy of Management Review*, 8 (3) pp. 486-500.
- Morrow, P.C. (1993), *The Theory and Measurement of Work Commitment*, Jai Press, Greenwich.
- Morrow, P.C. & McElroy, J.C. (1987) "Work commitment and job satisfaction over three career stages", *Journal of Vocational Behavior*, 30, 330-346.
- Morrow, P.C. & Wirth, R.E. (1989) "Work commitment among salaried professionals", *Journal of Vocational Behavior*, 34, 40-56.
- Mowday, R.T., Porter, L.W. & Steers, R.M. (1982) *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism and Turnover*. New York: Academic Press
- Mowday, R.T., Steers, R.M. & Porter, L.W. (1979) "Measurement of Organizational Commitment" *Journal of Vocational Behavior* 14: 224-247
- Mueller, C.W., Wallace, J.E. & Price, J.L. (1992) Employee commitment: resolving some issues", *Work and Occupations*, 19 (3) 211-236
- Neumann, W.L. (1997) *Social Research Methods: Qualitative and Quantitative Approaches*, Allyn and Bacon, Needham Heights, MA.
- Newell, H. & Dopson, S. (1996), "Muddle in the middle: organisational restructuring and middle management careers", *Personnel Review*, 25 (4) pp. 4-20.
- Noe, R.A. (1988) "Women and mentoring: A review and research agenda", *Academy of Management Review*, 13 (1) 65-78.
- Nonaka, I. (1994) "A dynamic theory of organisational knowledge creation", *Organization Science*, 5 (1) 14-37.
- Oakley, A. (1998) "Interviewing Women: A Contradiction in Terms", (Ed. H. Roberts) *Doing Feminist Research*, London: Routledge 30-59
- Ohlott, P.J., Ruderman, M.N. & McCauley, C.D. (1994) "Gender differences in Managers' developmental job experiences", *Academy of Management Journal*. 37 (1) 46-67
- Oppenheim, A.N. (1992) *Questionnaire Design, Interviewing and Attitude Measurement*, London: Pinter
- O'Reilly, C. & Caldwell, D. (1980) "Job choice: the impact of intrinsic and extrinsic factors on subsequent satisfaction and commitment", *Journal of Applied Psychology*, 65, 559-565.
- O'Reilly, C. & Chatman, J. (1986) "Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behavior", *Journal of Applied Psychology*, 71 (3) 492-499.
- O'Reilly, C., Chatman, J. & Caldwell, D.F. (1991) "People and organizational culture: A profile comparison approach to assessing person-organization fit", *Academy of Management Journal*, 34 (3) 487-516.

- Organ, D.W. (1990), "The motivational basis of organizational citizenship behavior", *Research in Organizational Behavior*, Jai Press, Greenwich, 12, pp. 43-72.
- Peccei, R. & Guest, D. (1993) "The Dimensionality and Stability of Organisational Commitment", *Centre for Economic Performance Discussion Paper*, No. 149
- Peccei, R. & Rosenthal, P. (1997) "The antecedents of employee commitment to customer service: Evidence from a UK service context", *The International Journal of Human Resource Management*, 8 (1) 66-86.
- Perlow, L.A. (1998) "Boundary Control: The Social Ordering of Work and Family Time in a High-tech Corporation", *Administrative Science Quarterly*, 43, 328-357.
- Peters, T. & Austin, N. (1985) *A Passion for Excellence*, New York: Random House.
- Pettigrew, A.M. (1997) "What is a processual analysis?", *Scandinavian Journal of Management*, 13 (4) 337-348.
- Pfeffer, J. (1989) "A political perspective on careers: interests, networks and environments", In: M. B. Arthur, D. T. Hall and B. S. Lawrence (Eds) *Handbook of Career Theory*, Cambridge University Press: Cambridge. 380-396
- Pfeffer, J. (1998) "Six dangerous myths about pay", *Harvard Business Review*, May-June, 109-119.
- Powell, G.N. & Butterfield, D.A. (1994) "Investigating the Glass Ceiling Phenomenon: An Empirical Study of Actual Promotions to Top Management", *Academy of Management Journal*, 37 (1)
- Powell, G.N. & Mainiero, L.A. (1992) "Cross currents in the river of time: Conceptualising the complexities of women's careers", *Journal of Management*, 18 (2) 215-237.
- QSR NUD.IST Qualitative Software, Version 4 (1996)
- Quinn, J.B. (1985), "Managing innovation: controlled chaos", *Harvard Business Review*, May/June, pp. 73-84.
- Ragins, B.R. & Sundström, E. (1989) "Gender and power in organizations: A longitudinal perspective", *Psychological Bulletin*, 105 (1) 51-88.
- Ragins, B.R., Townsend, B. and Mattis, M. (1998) "Gender gap in the executive suite: CEOs and female executives report on breaking the glass ceiling", *Academy of Management Executive*, 12 (1) 28-42.
- Randall, D.M. (1987) "Commitment and the Organization: The Organization Man Revisited", *Academy of Management Review*, 12 (3) 460-471.
- Randall, D.M. (1990) "The consequences of organizational commitment: Methodological investigation", *Journal of Organizational Behavior*, 11, 361-378.
- Randall, D.M. (1993) "Cross-cultural research on organizational commitment: A review and application of Hofstede's Value Survey module", *Journal of Business Research*, 26, 91-110.
- Randall, D.M. & Cote, J.A. (1991) "Interrelationships of work commitment constructs", *Work and Occupations*, 18 (2) 194-211
- Randall, D.M., Fedor, D.B. & Longenecker, C.O. (1990) "The behavioral expression of organizational commitment", *Journal of Vocational Behavior*, 36, pp. 210-224.
- Ranson, S., Hinings, B. & Greenwood, R. (1980) "The structuring of organizational structures." *Administrative Science Quarterly*, 25, 1-17.
- Rapoport, R. and Rapoport, R.N. (1980) "Balancing Work, Family and Leisure: A Triple Helix Model", In: Derr, C.B. (ed) *Work, Family and the Career*, Praeger, New York 318-328.
- Rausch, E. (1985) *Win-Win Performance Management Appraisal: A Problem-Solving Approach*, Wiley, New York.
- Rees, B. (1996) "Constructing managers: An exploration of competence, gender and identity", Unpublished PhD thesis, Cranfield University.
- Reichers, A.E. (1985) "A review and reconceptualization of organizational commitment", *Academy of Management Review*, 10 (3): 465-476.
- Reskin, B.F. (1978) "Sex differentiation and the social organisation of science". In Gaston, J. (Ed.) *The reward system in British and American Science*, Wiley, New York.
- Reskin, B.F. & Ross, C.E. (1992) "Jobs, authority and earnings among managers: the continuing importance of sex", *Work and Occupations*, 19 (4) 342-365.
- Richards, L. (1997a) Email dated 8-10-97, [QSR-Forum@qsr.latrobe.edu.au](mailto:QSR-Forum@qsr.latrobe.edu.au)

- Richards, L. (1997b) "Transition Work! Reflections on a Three-Year NUD.IST Project", (Ed: R.W. Burgess) *Studies in Qualitative Methodology*, 5, JAI Press.
- Richards, T.J. & Richards, L. (1984) "Using computers in qualitative research", In: Denzin, N.K. & Lincoln, Y.S. (Eds.) *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA, 445-462**
- Ritti, R.R. (1971) *The Engineer in the Industrial Corporation*, Columbia University Press, New York.
- Robinson, J.G. & McIlwee, J.S. (1989) "Women in engineering: A promise unfulfilled", *Social Problems*, 36 (5) 455-472
- Robinson, S.L. (1996) "Trust and breach of the psychological contract", *Administrative Science Quarterly*, 41, 574-599.
- Romzek, B.S. (1989) "Personal consequences of employee commitment" *Academy of Management Journal*, 32 (3) 649-661.
- Rose, A. M. (1962) "A Systematic Summary of Symbolic Interaction Theory", in Rose, A.M. (ed) *Human Behavior and Social Processes: An Interactionist Approach*, Routledge, London
- Rose, G. (1982) *Deciphering Sociological Research*, MacMillan, Basingstoke.
- Rosenbaum, J. E. (1989) ."Organization career systems and employee misperceptions". In: M. B. Arthur, D. T. Hall and B. S. Lawrence (Eds) *Handbook of Career Theory*, Cambridge University Press: Cambridge. 437-453
- Rosener, J. (1990) "Ways women lead", *Harvard Business Review*, 68, 119-125.
- Rosenfeldt, P., Giacalone, R.A. & Riordan, C.A. (1995) *Impression Management in Organizations: Theory, Measurement, Practice*, London: Routledge.
- Rousseau, D.M. (1990) "New hire perceptions of their own and their employer's obligations: A study of psychological contracts", *Journal of Organizational Behavior*, 11, 389-400.
- Rousseau, D.M. (1995) *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*, Sage, Thousand Oaks, CA.
- Rousseau, D.M. (1998) "Why workers still identify with organizations", *Journal of Organizational Behavior*, 19, 217-233.
- Rousseau, D.M. & Tijoriwala, S.A. (1998) "Assessing psychological contracts: Issues, alternatives and measures", *Journal of Organizational Behavior*, 19, 679-695.
- Rowe, R. & Snizek, W.E. (1995) "Gender differences in work values: perpetuating the myth", *Work and Occupations*, 22 (2) 215-229.
- Rubin, J. (1997) "Gender, equality and the culture of organisational assessment", *Gender, Work and Organization*, 4 (1) 24-34.
- Sagie, A. & Elizur, D. (1998), "Taking another look at cross-cultural research: rejoinder to Lachman (1997)", *Journal of Organizational Behavior*, 19, pp. 421-427.
- Salancik, G.R. and Pfeffer J., "Who gets power - And how they hold on to it: A strategic contingency model of power". In: R.W.Allen & L.W.Porter (Eds.) *Organizational Influence Processes*, Scott, Foresman and Co.**
- Sapsford, R. & Jupp, V. (1996) (Eds) *Data Collection and Analysis*, Sage: London
- Scandura, T.A. & Lankau, M.J. (1997) "Relationships of gender, family responsibility and flexible work hours to organisational commitment and job satisfaction", *Journal of Organizational Behavior*, 18, 377-391.
- Scase, R. & Goffee, R. (1989) *Reluctant Managers: Their Work and Lifestyles*, Unwin Hyman, London.
- Scheibl, F. & Dex, S. (1998) "Should we have more family-friendly policies?" *European Management Journal*, 16 (5) 586-599.
- Schein, E.H. (1965) & (1980 3<sup>rd</sup> edition) *Organizational Psychology*, Prentice Hall, Englewood Cliffs NJ.
- Schein, E.H. (1978), *Career Dynamics: Matching Individual and Organizational Needs*, Addison-Wesley, Reading, MA.
- Schein, E.H. (1984) "Coming to a New Awareness of Organizational Culture", *Sloan Management Review*, Winter, 3-16
- Schein, E.H. (1985) *Organisational culture and leadership*, Jossey Bass, San Francisco
- Schein, E.H. (1990) *Career Anchors: Discovering your Real Values*, San Diego: Pfeiffer

- Schein, E.H. (1996a) Career anchors revisited: Implications for career development in the 21<sup>st</sup> century. *Academy of Management Executive*, 00 (0), 80-88
- Schein, E.H. (1996b) "Culture: The Missing Concept in Organizational Studies" *Administrative Science Quarterly*, 41, 229-240
- Schein, V.E. (1973) "The relationship between sex role stereotypes and requisite management characteristics", *Journal of Applied Psychology*, 57, 95-100.
- Schein, V.E. & Mueller, R. (1992) "Sex role stereotyping and requisite management characteristics: A cross cultural look", *Journal of Organizational Behavior*, 13, 439-447.
- Schein, V.E., Mueller, R., Lituchy, T. & Liu, J. (1996), "Think manager - think male. A global phenomenon", *Journal of Organizational Behavior*, 17 (1), 33-41.
- Schneider, B. & Reichers, A. (1983) "On the etiology of climates", *Personnel Psychology*, 36, 19-39.
- Schneider, B. (1990) (Ed.) *Organizational Climate and Culture*, Jossey-Bass, San Francisco.
- Scholl, R.W. (1981) "Differentiating organizational commitment from expectancy as a motivating force", *Academy of Management Review*, 6 (4) 589-599.
- Seilbert, S.E., Crant, J.M. & Kraimer, M.L. (1999) "Proactive personality and career success", *Journal of Applied Psychology*, 84 (3) 416-427.
- Shore, L.M. & Barksdale, K. (1998) "Examining degree of balance and level of obligation in the employment relationship: a social exchange approach", *Journal of Organizational Behavior*, 19, 731-744.**
- Shore, L.M., Barksdale, K. & Shore, T.H. (1995), "Managerial perceptions of employee commitment to the organisation", *Academy of Management Journal*, 38 (6) pp. 1593-1615.
- Shore, L.M. & Wayne, S.J. (1993) "Commitment and employee behavior: comparison of affective commitment and continuance commitment with perceived organisational support", *Journal of Applied Psychology*, 78 (5) 774-780.**
- Silverman, D. (1993), *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*, Sage, London.
- Simpson, R. (1997), "Rationalisation, flexibility and the impact of presenteeism on the working lives of senior managers in the UK", 13<sup>th</sup> *EGOS Colloquium*, Budapest University of Economics, Hungary, July.
- Singh, V. & Vinnicombe, S. (2000 forthcoming) "Gendered meanings of commitment from high technology engineering managers in the UK and Sweden", *Gender, Work & Organization*.
- Singh, V. & Vinnicombe, S. (1999 forthcoming) "What does "commitment" really mean? Views of British and Swedish engineering managers", *Personnel Review*.
- Sly, F. Thair, T. & Risdon, A. (1998). Women in the Labour Market: Results from the Spring 1997 Labour Force Survey, *Labour Market Trends*, 106 (3) 97-119.
- Söderström, M. (1993), "An HRM role struggling for survival", *Personnel Management*, 25 (6) pp. 28-33.
- Solomon, C. M. (1998) "Women are still undervalued", *Workforce*, May 78-85
- Sonnenfeld, J. and Kotter, J.P. (1982) "The Maturation of Career Theory", *Human Relations*, 35, 19-43.
- Sparrow, P. (1998), "New organisational forms, processes, jobs and psychological contracts", in Sparrow, P. and Marchington, M. (Eds.) *Human Resource Management: The New Agenda*, FT Pitman Publishing, London, pp. 117-144
- Sparrow, P. & Marchington, M. (1998) "Re-engaging the HRM function: Rebuilding work, trust and voice". In: Sparrow, P. & Marchington, M. (Eds) *Human Resource Management: The New Agenda*, FT Pitman Publishing, London
- Stajkovic, A.D. & Luthans, F. (1997) "A meta-analysis of the effects of organizational behavior modification on task performance, 1975-95", *Academy of Management Journal*, 40 (5) 1122-1149.
- Statistics Sweden (1995) Verksamhet efter examen. Statistiska Centralbyrån, Stockholm.
- Staw, B.M. (1977) "Two sides of commitment", Paper presented at the National Meeting of the *Academy of Management*

- Stewart, R. (1984) "Developing managers by radical job moves", *Journal of Management Development*, 3 (2) 48-55.
- Stiles, P., Gratton, L., Hope-Hailey, V. & McGovern, P. (1997), "Performance management and the psychological contract", *Human Resource Management Journal*, 7 (1) pp. 57-66.
- Storey, J. & Sisson, K. (1993) *Managing Human Resources and Industrial Relations*, Open University Press, Buckingham.
- Strauss, A. & Corbin, T. (1990) *Basics of Qualitative Research*, Sage: London
- Sturges, J. (1996) "What it means to succeed: Personal conceptions of career success held by male and female managers at different ages", Unpublished PhD thesis, Cranfield University.
- Sunday Times (1999) "Putting the balance back into your career", *Sunday Times*, 30 May. p.2.
- Sundström, M. (1996) "Determinants of the use of parental leave benefits by women in Sweden in the 1980s", *Scandinavian Journal of Social Welfare*, 5, 76-82.
- Swedish Engineering Academy (see *Ingenjörsvetenskapsakademien*)
- Tannen, D. (1992) *That's Not What I Meant!* London: Virago
- Tannen, D. (1994) *Talking from 9 to 5: Women at Work: Language, Sex and Power*. Virago: Reading
- Tepper, B.J. (1995) "Upward maintenance tactics in supervisory mentoring and non-mentoring relationships", *Academy of Management Journal*, 38 (4) 1191-1205.
- Thacker, R.A. & Wayne, S.J. (1995) "An examination of the relationship between upward influence tactics and assessments of promotability", *Journal of Management*, 21 (4) 739-756.
- Thomas, R. & Dunkerley, D. (1999) "Careering downwards? Middle managers' experiences in the downsized organization", *British Journal of Management*, 10 (2) 157-170.
- Thompson, K.R. and Luthans, F. (1990) "Organizational culture: A behavioural perspective", In Schneider, B. (Ed.) *Organizational Climate and Culture*, Jossey-Bass Inc, San Francisco, 319-344.
- Thompson, M. (1998) "Jet setters: HR and the bottom line", *People Management*, 16 April, 38-41
- Tomlinson, F., Brockbank, A. and Traves, J. (1997) "The 'feminisation' of management? Issues of 'sameness' and 'difference' in the roles and experiences of female and male retail managers", *Gender, Work & Organization*, 4 (4) 218-229.
- Trompenaars, F. & Hampden-Turner, C. (1997), *Riding the Waves of Culture: Understanding Cultural Diversity in Business*, Nicholas Brealey Publishing, London.
- Tsoukas, H. (1989) "The Validity of Idiographic Research Explanations", *Academy of Management Review*, 14 (4) 551-561
- Turban, D.B. and Dougherty, T.W. (1994) "Role of Protege Personality in Receipt of Mentoring and Career Success", *Academy of Management Journal*, 37 (3) 688-702.
- Ulrich, D. (1998) "Intellectual capital = competence x commitment", *Sloan Management Review*, Winter, 15-26.
- Van Dyne, L., Graham, J.W. & Dienesch, R.M. (1994) "Organizational citizenship behavior: Construct definition, measurement and validation", *Academy of Management Journal*, 37 (4) 765-802.
- de Vaus, D. & McAllister, I. (1991) "Gender and work orientation", *Work and Occupations*, 18 (1) 72-93.
- Verbeke, W., Volgering, M. & Hessels, M. (1998) "Exploring the conceptual expansion within the field of organizational behavior, organizational climate and organizational culture", *Journal of Management Studies*, 35 (3) 303-329.
- Vinnicombe, S. & Cames, I. (1998) "A study of the leadership styles of female and male managers in ten different nationality banks in Luxembourg, using the Personal Attributes Questionnaire", *International Review of Women and Leadership*, 4 (2) 24-33.
- Vinnicombe, S. & Colwill, N. (1995) *The Essence of Women in Management*, London: Prentice-Hall
- Vinnicombe, S., Singh, V. & Sturges, J. (2000 forthcoming) "Making it to the top in Britain". In R. Burke & M. Mattis (Eds.) *Women at the Top* (title not yet fixed), Kluwer Academic Publishers, The Netherlands, in press

- Vroom, V. (1964) *Work and Motivation*, John Wiley, New York.
- Wahl, A. (1992), *Könsstrukturer i Organisationer: Kvinnliga Civilekonomers och Civilingenjörers Karriärutveckling*, Ekonomiska Forskningsinstitutet, Stockholm. (Gender structures in organisations: career development of women with masters degrees in economics and engineering).
- Wahl, A. (1995), *Men's Perceptions of Women and Management*, Ministry of Health and Social Affairs, Sweden.
- Wahl, A. (1998) "Deconstructing women and leadership", *International Review of Women and Leadership*, 4 (2) 46-60.
- Wajcman, J. (1996), "Desperately Seeking Differences: Is Management Style Gendered?", *British Journal of Industrial Relations*, 34 (3) pp. 333-349.
- Waldron, V.R.(1991) "Achieving communication goals in superior-subordinate relationships: The multifunctionality of upward maintenance tactics". *Communication Monographs*, 58, 289-3-6
- Wayne, S.J. & Ferris, G.R. (1990) "Influence tactics, affect and exchange quality in supervisor-subordinate interactions: A laboratory experiment and field study" *Journal of Applied Psychology*, 75, 487-499.
- Wayne, S.J. & Liden, R.C. (1995) "Effects of impression management on performance ratings: A longitudinal study", *Academy of Management Journal*, 38 (1) 232-260.
- Wayne, S.J., Shore, L.M. & Liden, R.C. (1997) "Perceived organizational support and leader-member exchange: a social exchange perspective", *Academy of Management Journal*, 1, 82-111.
- Webb, J. (1991) "The gender relations of assessment". In Firth-Cosens, J. & West, M.A. (Eds.) *Women at Work: Psychological and Organisational Perspectives*. Open University Press, Buckingham, 13-25.
- Webster, J. (1995) "The Difficult Relationship between Technology and Society", *Work, Employment & Society*, 9 (4) 797-810.
- Weick (1995) *Sensemaking in Organizations*, Sage: London
- Werner, J.M. (1994) "Dimensions that make a difference. Examining the impact of in-role and extra-role behaviors on supervisory ratings", *Journal of Applied Psychology*, 79, 98-107.
- Whetten, D.A. (1989) "What constitutes a theoretical contribution?", *Academy of Management Review*, 14 (4) 490-495
- Wilson, M. (1996) "Asking Questions", in R. Sapsford & V. Jupp (Eds) *Data Collection and Analysis*, Sage: London, pp 94-120
- Witz, A. (1990) "Patriarchy and professions: The gendered politics of organisational closure", *Sociology*, 24 (4).
- Yin, R.K. (1994) *Case Study Research: Design and Methods*, London: Sage

Appendices: Not included in PDF version.