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The attribution of expertise: modelling relational and organisational factors

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Abstract

The term ‘expert’ is frequently encountered both in the management literature and in the common parlance of business. However, the relational dimension of ‘expertise’ has received little academic attention and lacks clear theoretical underpinning. This study addresses this gap through an exploration of how sources of expertise are identified and utilised in a UK Government Department. A series of semi-structured interviews were used to explore the activities and experiences of 19 staff. The study identifies the complex interactions among institutional, personal and task-related factors. From this, it develops a comprehensive model of the attribution of expertise. This model could be used by organisations to develop appropriate strategies for the management of expert resources and decision making. This study addresses the paucity of empirical research that examines the relational dimensions of the attribution of expertise.

Keywords

expert; expertise; attribution; decision-making; management; public sector; government; relational

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1. Introduction

In every major event that affects the management and organisational decision-making process, experts are present. Although the reliability of the decision-making abilities of experts may be subject to criticism (Kang and Kim, 2022), regardless of the subject area, the term 'expert' reflects some common qualia of possessing greater knowledge, skills or capabilities than others (Lin, et al., 2022). 'Expertise' is said to comprise both objective and relational attributional elements such that an expert may be determined by their formal qualifications or position, and also by some fluid, comparative social process whereby the term is bestowed upon an individual by others; as noted in the seminal work of Sternberg and Frensch, (1992). Consequently, the term 'expert' is heteroglossic and has multiple connotations depending upon the context in which it is used, the characteristics of the person about whom it is being used, and the perceptions of those using it.

The concept of expertise has been discussed widely (e.g. Anderson, 1982; Ericsson and Smith, 1991, Ericsson, 2006; 2008; Hoffman, 1998; Li and Kaiser, 2011; Collins and Evans 2002; 2015; and Koppl, 2023). However, it still remains unclear whether or not expert input actually results in better decisions and preferable outcomes (Mayo et al., 2020). Only a few studies have attempted to address the relational attribution of expertise (see: Abbott, 1988; Bunderson, 2003; Mieg, 2006; Bunderson and Barton, 2011; Collins, 2011; Gustafsson, 2021) and it appears to be governed by a range of perceptual factors. For example, expertise may be attributed according to the type of organisation where people work (O'Brien, 2017) or even according to their relative attractiveness (Palmer and Peterson, 2015). This is of both theoretical interest and practical concern because the improper attribution of expertise can have catastrophic consequences. For instance, the Haddon-Cave Report (2009) found that the attribution of greater expertise than was warranted to a project team member contributed to the

loss of a UK Ministry of Defence (MOD) Nimrod aircraft along with its flight crew of 14 over Afghanistan in 2006:

> 'This was not a position that he should have been put in. He was simply not qualified. He did not have the authority to do so. He did not have the experience, skills or judgment to understand what he was really doing. Most of the time, he appears to have been simply out of his depth.' (Haddon-Cave, 2009, 308)

In another example, Gifford (2020) highlights evidence given to the US Joint Economic Committee by former Federal Reserve Chair Ben Bernanke who played down the danger of sub-prime mortgages. The subsequent crisis had worldwide ramifications.

The expectation is usually that the presence of experts leads to more informed decisions, but that is not always the case as was demonstrated by the work of Almandoz and Tilcsik (2016) who suggest that in conditions of uncertainty domain experts detract from effective decision making.

The above cases highlight that appropriate management and utilisation of relational 'expert' resources in management and decision making is an activity that has important performance implications for the organisation, individuals and wider stakeholder groups. However, there is a paucity of literature that provides clarity on the attribution of that relational expertise. Therefore, this study aims to determine the factors that influence the attribution of relational expertise

To address this, a critical appraisal of the literature was made to guide the study into factors that influence the attribution of expertise. The findings indicate that it is a multifaceted and complex social process, heavily influenced by prevailing organisational constraints. The results are used to develop a comprehensive model of the attribution of expertise that is an important theoretical contribution that furthers our understanding of this complex topic. The study has practical implications for all organisations that must consider the ramifications of operating structures, physical design, and the choice of measures of performance upon the utilization of

sources of expertise. In addition, it adds to the debate around the identification and utilisation of suitable 'expert' resources for the management of organisations and expert influence in the decision-making processes. History has shown that failure to recognise and address weaknesses in these areas can result in detrimental or even catastrophic consequences.

2. Literature Review

2.1 Expertise

There are several schools of thought that present differing conceptualizations of expertise and its acquisition or attribution. For instance, Sternberg and Frensch (1992) represent the 'social attribution' of expertise by asking whether a shaman in a primitive tribe is a medical expert. To a 'sophisticated' outsider shamans may appear as mere charlatans and purveyors of witchcraft. However, as Sternberg and Frensch (1992, p.195) noted, the shaman may have '*automatized a large number of procedures for handling medical emergencies that the tribe believes necessary for medical practice.*' In this case, the expectations of the social group (the tribe) have been met, and thereby they would be legitimate in decreeing that the shaman was an expert. By a similar process, the outsider may also be legitimate in calling the shaman an expert, but perhaps in 'shamanism'.

Similar attributions of expertise occur in modern life and many of these represent the 'professional attribution' of expertise. As far back as Hughes' (1917) analysis, agricultural judges were found to be in general agreement with each other but were poor at forecasting crop yields. Almost five decades later, Trumbo et al. (1962) found that wheat judges misclassified more than one third of the ears they graded. Furthermore, samples that were graded for a second time were often given a different grade, and although judges with more experience displayed greater confidence, they were no more accurate. Similarly, the studies of wine experts undertaken by Gawel (1997), Brochet and Dubourdiu (2001) and Valentin et al. (2000) showed that without visual cues (such as a label or colour) the 'experts' faired only slightly better than

lay wine drinkers. Both Cassidy and Buede (2009) and Malkiel (1985) found that the accuracy of some experts was no better than random selection, while Peters et al. (2012) highlighted that experts' opinions are governed by identity and self-interest. Further confusion is added by virtue of the existence of disagreement amongst some of those attributed as experts (Shanteau, 2015). For example, experts within domains with stable (static) properties, such as weather forecasters, are less likely to disagree than those with changeable (dynamic) properties such as office managers. More recently Kilov (2021) has examined the brittleness and inflexibility of experts to move to similar knowledge domains.

Stasser and Titus (2003) exemplify the 'cultural capital' of expertise by observing that when the bearer of unique information is labelled as an expert a group will pay more attention, turning to that designated expert for information to inform a decision. This label is often conferred after a lengthy duration of 'practice', a concept popularised by those such as Ericsson (1996) and Gladwell (2008). While such a concept of expertise undoubtedly features highly in the social construction of perceptions of expertise it must not necessarily be reified as the prime determinant (Ericsson, 2008). In contrast, perceptions of expertise appear to be more nuanced than 'expert' and 'non-expert' and may take the form 'more or less expert' than the social group or the individual making the observation. Phillips et al. (2004) for example suggest that experts are distinguishable from non-experts by what they know and what they can do. By definition there should be comparatively few objectively expert individuals within a given domain since the very uniqueness of their particular skills and knowledge must render them scarce (Kliegl and Baltes, 1987). Lombardo and Deaner (2014) offer an interesting perspective upon the perceived years of practice that are necessary in order to become expert by examining the 'deliberate practice model'. Albeit via an examination of top athletes, their study finds that the notional '10 years', that is widely considered to be necessary in order to become expert, is not universally true.

The growing capabilities of information systems, including and in particular ‘expert systems’, suggests that the attribution of expertise may also be afforded to non-sentient or at least non-human systems as has been seen in the use of various diagnostic tools across a range of specialisms including health (Yasin et al., 2022), infrastructure (Santos et al., 2022) and even sustainable farming (Umami, 2023). The integration of artificial intelligence into businesses via expert systems was described by Regoczei and Hirst (1992) in terms of having some of the characters of human expertise through the ability to contain and apply knowledge or particular skills during the performance of a task. Greisser (1992) too describes these systems as operating in a specific area and functioning in a manner similar to human experts such that less-skilled employees can use the preserved knowledge to reach a decision.

The complexity of the dimensions of expertise is reflected in Nunn’s (2008) representations as a series of network diagrams, predicated upon its transience, dynamics, context and overlapping knowledge boundaries. Several other notable models of expertise exist within the literature. For instance, Ullen, Hambrick and Mosing’s (2016) biological model of expertise whom, similar to Lombardo and Deaner (2014), find that the oft-said ‘years of practice’ is insufficient to engender expertise. Frie et al. (2018), in recognising the dynamic nature of expertise, proffer a conceptual model of ‘expertise renewal’ and utilise the term ‘flexperts’. While their model acknowledges the existence of the social domain within which experts and expertise exist, it seems to assume that the acquisition of expertise is always positive and does not account for the improper attribution of expertise. The act of one individual seeking knowledge from another to address a problem is described by Mieg (2006, p.747) as the ‘the expert interaction’. His interpretation of the attribution of expertise is implied to be both immediate and perdurable. However, relational expertise is socially constructed so it is also historically bound and may be inherited from the social group.

From the review of the literature, it can be concluded that there is no single model of the attribution of expertise that adequately represents its complex and interdependent components within managerial science. It is to this end that this study endeavours to provide its theoretical and practical contributions.

3. **Methodology**

The sample population are UK Ministry of Defence civil servants who work within project teams. This department was chosen as the basis for this study because of the consequences of improperly attributed expertise that have previously been highlighted in cases such as the loss of Royal Air Force Nimrod XV230 (Haddon-Cave, 2009). Within the Department the Commercial Function was chosen as the specific area for enquiry because its operations span numerous physical and organizational boundaries, and it is involved in both large-scale projects and day-to-day equipment support within integrated project teams. As such, it offers a valuable example of an area in which expertise forms a vital component of management and decision making.

3.1 Data collection and analysis

Data were gathered through 19 semi-structured interviews. This format enabled the capture of rich situational information (Fox, 2009; Denscombe, 2010) and allowed researchers to follow interesting and emergent lines of enquiry (Bryman, 2008) related to real-world experiences (Allen, Dickmann, Priscott and White, 2023; Ciulli and Boe-Lillegraven, 2020). Each interview lasted approximately one hour.

The interview questions were operationalised from the literature and were open-ended to stimulate discussions (Strauss and Corbin, 1998; Charmaz, 2006). Questions typically took the form '*How did you decide which expert source to use?*' whereas other questions were developed to explore new and interesting aspects of the specific examples given by the participants.

The questions were reviewed and refined after each interview to ensure that theoretical saturation was achieved (Glaser and Strauss, 1967; Guest et al., 2006). The interviews were recorded and transcribed verbatim by the lead researcher to minimise misinterpretation (Opdenakker, 2006). The data were analysed using thematic analysis (Guest, MacQueen and Namey, 2012) following Braun and Clarke's (2006) six-step process comprising (1) data familiarization, (2) initial interpretation, (3) identification of themes, (4) reviewing and agreeing themes, (5) defining the dominant themes, and (6) construction of the narrative of the analysis. Member validation was conducted to confirm the interpretation of the data (Sandelowski, 1993). Following multiple and thorough readings of the transcripts four overarching themes were identified. These consist of 'Nature of Work', 'Organisational Environment', 'Identifying Expert Resources' and 'Expertise Efficacy'.

3.2 Ethics

Although many research projects require access to study sites and participants, and secure data management, these principles are magnified when the enquiry concerns subjects of national and governmental security (Robson, 2002). The lead researcher is a former senior leader in the Department and their former role and knowledge of the Department were instrumental in enabling this unique research project. First, it facilitated access to those with the authority to grant clearance for the research. Second, it mitigated researcher-participant dissonance during the semi-structured interviews and thereby improved data capture and reliability. Third, it facilitated the culturally and technically situated analysis and interpretation of the research data, which would not be possible with researchers that were unfamiliar with the terms used and the sociohistorical context of the data. Consent was gained for a pilot study, interviews, and all raw and analysed data were anonymised.

4. Analysis and Discussion

The data revealed the highly interrelated nature of the factors that contribute to the attribution of expertise. For example, extremely complex projects may place demands on already scarce resources that, in turn, increase the likelihood of staff having to rely on personal networks for expert advice. The complex interplay of factors was woven throughout the participants' discussions of their general duties and their recollections of specific projects and circumstances. The thematic analysis of their detailed accounts is presented against the overarching themes of the nature of work, the organisational environment, the challenge of identifying and engaging expert resources, and the assessment of expertise efficacy.

4.1 Nature of Work

Participants discussed at considerable length the context of work in terms of the importance of the activity, the scale and complexity of the project, and the often-pressing deadlines. For instance, many highlighted the ramifications of making poor or incorrect decisions:

> *'It's not like I'm buying some bread off a shelf in a shop.'*

> *'There are huge consequences to getting it wrong…there are lives on the line.'*

The broad scope of the Commercial Function, ranging from the sourcing of everyday items to the procurement of capital equipment, indicates the variety of work that the staff handle, and the diverse skills and knowledge required. All of the participants stated that law and regulations were the most significant aspect of their work requiring their own and other experts' specialist knowledge. One participant noted an example in which a senior manager had almost inadvertently committed the department to a single-source contract that may have been adjudged to be '…*circumnavigating law*.' The participant commented that it was their consultation with the legal team, and that team's detailed knowledge, which was used to explain the risks of the situation and prevent embarrassment. Another noted that the law relating to procurement in particular can be very complex and that although it has '*…black and white areas, it's got case law…*' which requires specialist knowledge.

Electronic sources and the Internet are commonly used to source information, particularly for 'gathering supplier/marketing intelligence' and understanding 'manufacturing processes'. One participant commented:

> '*My starting position is to find out the answer myself. I quite often go to the Internet because that's a good source of information.'*

Interestingly, and despite the complexity and the importance of legal issues that were highlighted by many participants, they also stated:

> '*When you want legal advice…there's lots of websites…lots of legal guidance.'*

The need to meet deadlines, along with the challenge of acquiring relevant expert assistance to address complex problems and the subsequent implication that expertise is compromised is, in our view, persuasively expressed by one participant when they said:

> '*I'll run it by my manager and copy a colleague, talk to Policy personnel, Legal and come to an opinion based on all that information…of course, if you get more information that comes in after that you've got to do it all over again. But, at some point, you've got to stop otherwise you'll just go round in circles.'*

One participant highlighted an instance in which their team did not have the capacity to deal with the intricacies of a complex pricing mechanism. In order to meet an impending deadline they '*…consulted members of the policy team…'* to determine where to place the contract. Despite the obvious importance of ensuring cost effectiveness in a volatile economic environment, and without detailed costing information, the decision was made according to general policy, about which the participant stated '*I take that as gospel*.'

4.2 Organisational Environment

Securing appropriate expertise was described by one participant as '*a constant issue*.' Another described the work of the specialist team that assists with single-source procurement, referring to them as a '*finite resource*'. One participant described the lack of expert resources available

to recommend insurance for projects that featured considerable risk and uninsurable elements. Having been unable to secure the specialist advice needed from the policy branch or the internal legal advisors, they engaged with the department's external insurers to take a view on '*whether it was worth the* [department] *taking a risk or not*.' Such advice is unavailable elsewhere and is outside the remit of the internal teams. The participant explained that without such advice they would be unable to proceed with the project.

The absolute availability of resources is not the only issue. The physical proximity of those resources is also important. One participant mentioned the advantages of having a qualified and experienced senior manager:

> '*…literally over the other side of the passage.*'

Although this could initially be interpreted as beneficial, it bypassed the participant's direct line manager and the potential ramifications of this must not be overlooked. Several participants were critical of the need to adhere to hierarchical routes of confirmation and communication and, more worryingly, the ability of those in senior managerial positions to contribute to the issue:

> '*Everything has to go through them from a credibility point of view, even though they say more things that are inaccurate and wrong.*'

4.3 Identifying Expert Resources

The characteristics of the available sources of expertise were also found to play a part in the attribution of expertise. This comprised the availability or scarcity of a particular type of resource, its objective expertise and its relational expertise. Each of these aspects was discussed by the majority of participants. One particular discussion concerned Governmental and independent investigations, which demonstrates the need for the proper objective attribution of expertise. The participant noted the changes that had since been implemented so that no person

should be employed in a role that incorporated the term 'safety' in their title without possessing an appropriate safety-related formal qualification.

The participants most often referred directly to the expert capabilities of their colleagues concerning the subject of law. One commented that the lawyers:

> '*…have status within their profession.*'

Complex or commercially significant acquisitions are:

> '*…reviewed by legal team to ensure there's nothing fundamentally flawed in that sort of contract, is legally robust, it's actually commercially sound, written in good language and understandable by industry.*'

Other projects also required the involvement of formally qualified experts such as specialists in Intellectual Property Rights or Cost Engineering, who were often described as possessing '*a comprehensive understanding.*' One example of requiring suitably qualified and experienced personnel was the disposal of low-level radioactive waste where specialist guidance was received from a:

> '*…dangerous-goods advisor.*'

Discussions with the participants frequently included comments that demonstrated the importance of relational expertise for the identification of experts. Phrases that implied that other individuals or functions were 'more expert' than the participant were frequently used. For instance:

> '[Function A] *was approached because they have more detailed access to the costing systems.*'

Participants described instances in which they had drawn upon their personal networks in order to expedite decisions. Their reasons for doing so were driven by the impending deadlines and

the convenience of liaising with people whom they already knew rather than attempting to contact and develop a relationship with an unfamiliar person. In addition, they commented upon the dependability of their existing contacts, either in their willingness to assist, their speed of response, or their perceived abilities, one stating:

'*I've got colleagues, peers, who I trust*.'

Confirming that this is a commonplace tactic, one participant also discussed an occasion when they were the recipient of a request for such assistance, noting:

'*It's not directly related to my area of work, but someone's asked me because they know me.*'

4.4 Expertise Efficacy

Some participants described situations in which expertise was attributed to an individual for their general ability to provide assistance. For example, one described why a particular person was routinely consulted:

'He brings technology, difficult and complex situations, down to a level the average layman can understand.'

However, several others described situations in which the perceptions of relative expertise had resulted in the improper attribution of expertise. One participant recalled that a highly experienced individual with '*loads of years' worth of commercial experience*' was trusted to develop strategy, but was later found to have:

'*...no more experience in the subject* [strategy] *than anybody else in the team.*'

Another recalled their own well-intentioned reasons for raising the issue of risk during a project meeting, but as a consequence they were attributed some degree of expertise and were thereafter '*regularly approached*' by seniors and asked for their '*personal opinion on things.*' Worryingly, one participant also noted:

> *'When we were looking for specific skills we asked the individuals* [who had declared some expertise in the subject] *to help with a skills shortage and the majority of individuals reneged and said they weren't that skilled after all.'*

Some interviews revealed that expertise can also be transient and fluid in nature. For example, one participant mentioned a complex item of equipment that had malfunctioned and noted that '*the skills to deal with it were no longer present within the department.'* Another made a similar observation concerning the current expert in a cutting-edge technology required for existing and future strategic capabilities, commenting '*In about three or four years' time, he won't be.*'

Many of the participants indicated that the act of attributing expertise was an almost continual social process and not necessarily a one-off occurrence. Also, there is evidence that the re-attribution of expertise is not always a rational process. For example, one participant requiring the peer review of a document from an individual regarded as a specialist on the particular subject noted that:

> '*During conversations it became clear that* [they] *had knowledge but limited practical experience*.'

When the participant commented to others that the so-called expert did not possess the skills and competence that had been attributed, the claims were met with incredulity.

One participant noted that, when they returned from a visit to a contractor, they were alarmed to find that a junior member of staff had sought advice on a complex overseas process from a senior leader who was believed to have more experience and knowledge on that subject. When questioned, the junior replied, '*Well, they told me to do this*'. The participant had to interject because they were concerned that the decision was '*going to delay the project and…have an impact on the business for that particular project*.'

Others have also found it necessary to intervene when a colleague claimed unwarranted expertise. One recalled having to step in to contradict a colleague working on the revision of equipment maintenance and reference books because:

'*They are experienced in doing it the wrong way because they're not up to date*.'

There is an assumption among junior staff within the function that higher level personnel possess greater expertise. Some participants noted that even when the lack of expertise is discovered, they are often powerless to overturn a decision. One participant discussed the deliberate misinterpretation of data to suit a management agenda:

'*Me presenting them information, and them telling me what it means, and I'm saying no, that's not what it means*.'

The participant said that they felt incapable to do much more than the initial protest:

'*Those two people hold the power…I know by virtue of where they sit in relation to me and how they sit in relation to the people above them that there's only so much I can do to push my own thoughts*.'

Even some of the highly experienced participants had been convinced by the manner in which some individuals conduct themselves and mistakenly attributed expertise to them. One participant noted that during early discussions with a colleague they had:

'*…said all of the buzzwords that set off in my brain confirmation that they know what they are doing.*'

However, they added:

'*During the task it became clear that this individual knew the words but not the context or even any risks or opportunities that could be exploited*.'

Some also expressed their frustration with those who were presented as, or claimed to be, experts in particular areas but were actually unable to offer any depth of subject understanding:

'*They literally quote back from the policy you are asking about.'*

Many participants discussed instances in which the consequences of attribution of expertise were unknown until after the individual had left a particular team or the activity had been completed. One suggested this was the case with a particular 'high-flyer' who had impressed senior management with their specialist knowledge:

'*They're long gone and off doing something else; you're left to sort out the muddles they left behind*.'

The participant made a further worrying comment that once again indicates that the re-attribution of expertise is not a rational process and organisations fail to learn from past mistakes. They also noted that those actions are repeated again as the individual goes on to another project:

'*It's not just the once, once it happens, you know people make mistakes all the time*.'

4.5 Modelling the Attribution of Expertise

This study confirmed that the attribution of expertise is a complex social process comprising objective and relational elements, which is influenced by numerous factors that are institutionally, personally and task related. The whole series of events and factors that influence the attribution of expertise can be seen to comprise those that are represented by the social, professional, and cultural capital schools of thought (such as Sternberg and Frensch 1992; Stasser and Titus, 2003; Shanteau, 2015). Based on these observations, a comprehensive model that represents the attribution of expertise as a social construct conferred upon an individual, a system, a group, or a departmental function is proffered in Figure 1.

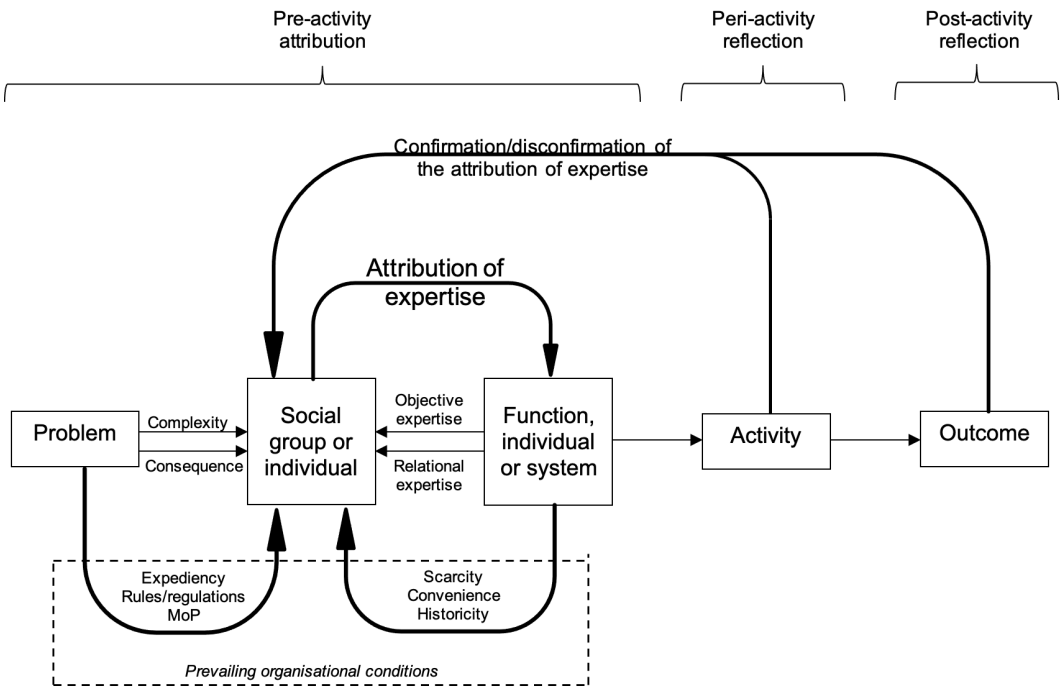


Figure 1: A New Model for the Attribution of Expertise

Beginning at the left-hand side of the model, the Problem that is to be addressed presents a particular type of expertise that is required, such as legal, engineering or cost analysis - comprising the elements of the overarching themes 'Nature of Work'. The nature of the specific Problem, such as its innate Complexity or the Consequence of its inadequate solution provide further information that influence the subsequent attribution of expertise. Additionally, the historical professional and personal links between the subjects of this study and the end users served as valuable motivators to complete projects successfully. However, this often competes with mounting pressures to reduce costs and the practical difficulties encountered when attempting to identify and liaise with potential sources of expertise, and often appears to result in significant compromise.

Although the nature of the task determines the type of expertise that is required, the prevailing organisational conditions, such as organisational measures of performance and resource

availability, also affect the attribution of expertise - comprising the elements of the overarching theme ‘Organisational Environment’. These are depicted at the bottom left of the model, within the box composed of dashed lines. The nature of the organisation is known to have an influence upon the attribution of expertise (O’Brien, 2017) and this study advances this notion by finding that the institution’s physical structure also has an effect.

The Prevailing Organisational Conditions and the nature of the Problem at hand, affect the perceived Relational and Objective Expertise of the available resources. The Social Group or Individual that then makes an ‘Attribution of Expertise’ to a ‘Function, Individual or System’ - comprising the elements of the overarching theme ‘Identifying Expert Resources’. Expert guidance is also sought based upon its availability, in terms of the absolute resource that is present within the organisation and in terms of the convenience and ease of access. The personal connections and networks are also important in the identification and selection of expert resources. The perceived dependability, accuracy and trustworthiness of personal contacts appear to influence their selection as valuable sources of expertise. Although this could be understood as a weakness in the attribution of expertise, it also supports earlier observations that non-experts can establish new domains of knowledge (Eyal, 2013).

Furthermore, it is not always clear that persons or functions possess objective expertise. Whereas lawyers or safety advisers may be deemed to possess objective expertise as demonstrated by the nature of their qualifications and training, many other individuals and functions appear to be assessed upon degrees of relational expertise. This may be due to there being no qualification that would mark one as an ‘expert’, e.g. in functions such as procurement or costing. Individuals and organisations could address this by making better use of post-nominal designatory letters to demonstrate professional capabilities. However, in many cases expertise is readily attributed when an individual or a function is, or is perceived to be, more capable (Glaser and Chi, 1988; Sternberg and Frensch, 1992; Phillips et al., 2004) or indeed

'less inexpert', than the one seeking assistance, or by virtue of access to a given information source.

Recognising that the Attribution of Expertise may be a fluid social construction (Sternberg and Frensch, 1992; Agnew et al., 1994; Eberly et al., 2011), the Attribution of Expertise to a particular resource may be revised based upon observation of the Activity to address the Problem, or assessment of the final outcome of the Activity. This reflective element may then form part of the information that is used to inform future processes of the Attribution of Expertise - comprising the elements of the overarching theme 'Expert Efficacy'. The efficacy of a source of expertise may depend on relevant historical or personal knowledge (pre-activity) but may also be attributed without any supporting evidence or testing (Agnew et al., 1994). It may only be possible to judge the capabilities of an expert during an event (peri-activity) or afterwards (post-activity), and even then, in light of new evidence and experience, the re-attribution of expertise may be imperfect. In some instances, expertise has been attributed based upon length of service or experience (Ericsson, 1996; Charness et al., 1996; Simonton, 1999; Mieg, 2009; Germain and Tajeda, 2012). However, historical knowledge is not necessarily a reliable premise upon which to base the attribution of expertise given that knowledge, particularly tacit knowledge, is ephemeral.

5. Conclusion

Experts and expertise have been studied in diverse situations, but what constitutes an expert, and what defines their ability to perform the functions that their elevated positions suggest, remain unclear. This study explored the attribution of expertise by considering a UK Government Department. In doing so it addresses the current lack of understanding of this complex undertaking by adopting a position that integrates the social, professional, and cultural capital perspectives of the attribution of expertise. A comprehensive model that makes several

important contributions to address the current lack of understanding of this complex topic is proffered.

First, the model captures the many factors that affect the attribution of expertise. It identifies the objective and relational factors and also unpacks the situational factors, comprising the 'Nature of Work', 'Organisational Environment', 'Identifying Expert Resources' and 'Expertise Efficacy'. This is the first model to provide a comprehensive representation of the complex interplay between institutional, personal and task-related factors. It explains how the enactment of these various, often antagonistic pressures, may result in the utilisation of particular resources. This is useful for researchers wishing to explore the vagaries of expertise in more detail and could help organisations to prevent the use of suboptimal expert resources.

Second, few researchers have explored relational expertise, especially in the context of organisational management and decision making. We found that relational characteristics are much more influential during the attribution of expertise than objective characteristics. This is partly because the assessment of objective expertise is challenging when indicators are absent or hard to discern. In contrast, relational expertise is readily attributed and seems to be largely based upon convenience with the proximity of resources and personal knowledge of sources figuring highly among the factors that are considered. Identifying that the layout of an organisation has bearing upon the attribution of expertise is a novel insight that invites further future exploration.

Our research also suggests some practical measures. Organisations need to consider the limitations that workplace design may place upon the attribution of appropriate sources of expertise. We found that proximity and ease of access have considerable influence upon the sources of expertise that are utilised. Although a hierarchy of control is needed to maintain the efficient function of an organisation, the mandatory involvement of this hierarchy when

seeking experts was often found to be counterproductive. Organisations should carefully consider the need for authority structures during the process of utilising expert sources.

5.1 Limitations

By design, the study was bounded by the context of the UK Government and this should be considered when applying the model to other organisations. Although the detailed analysis was by necessity contextualised, the model is based upon the wider literature and the conclusions can be generalised to include conditions and factors experienced in other organisations. The validity of any study of interpretive design may also be criticised, and member validation was used to confirm the interpretation of the data.

5.2 Future Research

Future research should seek to confirm the suitability of the new model in other organisations and other types of functions and should attempt to quantify the relationship between dependent and independent variables such as problem complexity and expert attribution, and the influence of moderating variables such as resource scarcity.

Data Availability Statement:

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

References

Abbott, A., 1988. *The system of professions: An essay on the division of expert labor*. Chicago: The University of Chicago Press.

Agnew, N.M., Ford, K.M. and Hayes, P.J., 1997. 10 Expertise In Context: Personally Constructed, Socially Selected and Reality-Relevant?. *International Journal of Expert Systems*, *7*(1), p.65.

Allen, R., Dickmann, M., Priscott, T., White, G.R.T. 2024. Exploring Positive and Negative Intersectionality Effects: an employment study of neurodiverse UK military veterans. *International Journal of Human Resource Management*, In-Press.

Almandoz, J. and Tilcsik, A., 2016. When experts become liabilities: Domain experts on boards and organizational failure. *Academy of Management Journal*, *59*(4), pp.1124-1149.

Anderson, J.R., 1981. *Cognitive skills and their acquisition*. Psychology Press.

Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), pp.77-101.

Brochet, F. and Dubourdieu, D., 2001. Wine descriptive language supports cognitive specificity of chemical senses. *Brain and language*, *77*(2), pp.187-196.

Bryman, A., 2008. *Social Research Methods* (3rd ed) Oxford, UK: Oxford University Press.

Bunderson, J.S., 2003. Recognizing and utilizing expertise in work groups: A status characteristics perspective. *Administrative science quarterly*, *48*(4), pp.557-591.

Bunderson, J.S. and Barton, M.A., 2011. Status cues and expertise assessment in groups: How group members size one another up... and why it matters. *Status in management and organizations*, pp.215-237.

Cassidy, M.F. and Buede, D., 2009. Does the accuracy of expert judgment comply with common sense: caveat emptor. *Management Decision*, *47*(3), pp.454-469.

Charmaz, K., 2006. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis.* London: SAGE Publications.

Charness, N., Krampe, R.T. and Mayr, U., 1996. The role of practice and coaching in entrepreneurial skill domains: An international comparison of life-span chess skill acquisition. In Ericsson, K.A. (Ed.), *The road to excellence: The acquisition of expert performance in the arts and sciences, sports, and games* (pp.51–80) Mahwah, NJ: Erlbaum.

Ciulli, F., Kolk, A., and Boe-Lillegraven, S. 2020. Circularity Brokers: Digital Platfrom Organizations and Waste Recovery In Food Supply Chains. *Journal of Business Ethics*, 167, pp. 299-331.

Collins, H. 2013. Three dimensions of expertise. *Phenomenology and the cognitive sciences*, *12*(2), pp. 253-273.

Collins, H. M., and Evans, R. 2002. The third wave of science studies: Studies of expertise and experience. *Social studies of science*, *32*(2), pp. 235-296.

Collins, H., and Evans, R. 2015. Expertise revisited, part I—Interactional expertise. *Studies in History and Philosophy of Science Part A*, *54*, pp.113-123.

Denscombe, M. 2017. *EBOOK: The good research guide: For small-scale social research projects*. McGraw-Hill Education (UK).

Eberly, M. B., Holley, E. C., Johnson, M. D., and Mitchell, T. R. 2011. Beyond internal and external: A dyadic theory of relational attributions. *Academy of Management Review*, *36*(4), pp.731-753.

Ericsson, K.A. 1996. The acquisition of expert performance in the arts and sciences, sports, and game. In: Ericsson, K.A. (Ed.), *The Road to Excellence* (pp.1-50) Mahwah, New Jersey: Erlbaum Lawrence Associates.

Ericsson, K.A. and Smith, J., 1991. Prospects and Limits of the Empirical Study of expertise: An Introduction. In Ericsson, K.A. and Smith, J. (Ed.) *Toward a general theory of expertise:*

Prospects and limits. Cambridge University Press.

Ericsson, K.A., 2006. The influence of experience and deliberate practice on the development of superior expert performance. In Ericsson, K.A., Charness, N., Hoffman, R.R. and Feltovich, P.J. (Eds.), *The Cambridge handbook of expertise and expert performance* (pp.39-68) New York: Cambridge University Press.

Ericsson, K.A., 2008. Deliberate practice and acquisition of expert performance: a general overview. *Academic emergency medicine*, *15*(11), pp. 988-994.

Fox, N., 2009. *Using interview in a research project.* The NIHR Research Design Service: Yorkshire.

Frie, L.S., Potting, K.C., Sjoer, E., Van der Heijden, B.I. and Korzilius, H.P., 2019. How flexperts deal with changing expertise demands: A qualitative study into the processes of expertise renewal. *Human Resource Development Quarterly*, *30*(1), pp.61-79.

Gawel, R., 1997. The use of language by trained and untrained experienced wine tasters. *Journal of Sensory studies*, *12*(4), pp.267-284.

Germain, M. and Tejeda, M., 2012. 'A preliminary exploration of the measure of expertise: an initial development of a psychometric scale', *Human Resource Development Quarterly, 23*(2), pp.203-232.

Gifford, C., 2020. Why expertise can lead to bad decision making. *EuropeanCEO*. Available at: https://www.europeanceo.com/business-and-management/why-expertise-can-lead-to-bad-decision-making/

Gladwell, M., 2008. *Outliers: The story of success*. Little, Brown.

Glaser, R. and Chi, M.T.H., 1988. Overview. In Chi, M.T.H., Glaser, R. and Farr, M.J. (Ed.), *The nature of expertise* (xv-xviii) Mahwah, NJ: Lawrence Erlbaum Associates.

Glaser, B.G. and Strauss, A.L., 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York, NY: Aldine Publishing Company.

Griesser, J.W., 1992. 'Experts Among Us', *Business Horizons*, *35*(3), pp.77-80

Guest, G., Bunce, A., and Johnson, L., 2006. How many interviews are enough? An experiment with data saturation and variability. *Field methods*, *18*(1), pp. 59-82.

Guest, G., MacQueen, K. M., and Namey, E. E., 2011. *Applied thematic analysis*. sage publications.

Gustafsson, K.M., 2021. Expert organizations' institutional understanding of expertise and responsibility for the creation of the next generation of experts: comparing IPCC and IPBES. *Ecosystems and People*, *17*(1), pp.47-56.

Haddon-Cave, C., 2009. The Nimrod Review: An independent review into the broader issues surrounding the loss of the Nimrod MR2 Aircraft XV230 in Afghanistan in 2006.

Hoffman, R. R., 1998. How can expertise be defined? Implications of research from cognitive psychology. In *Exploring expertise* (pp. 81-100). Palgrave Macmillan, London.

Hughes, H.D., 1917. An interesting corn seed experiment, *The Iowa Agriculturalist*, Vol. *17*, pp.424-425.

Kang, S., and Kim, J. W., 2022. The fragility of experts: A moderated-mediation model of expertise, expert identity threat, and overprecision. *Academy of Management Journal*, *65*(2), pp.577-605.

Kilov, D., 2021. The brittleness of expertise and why it matters. *Synthese*, *199*(1), pp.3431-3455.

Kliegl, R., & Baltes, P. B., 1987. Theory-guided analysis of mechanisms of development and aging through testing-the-limits and research on expertise.

Koppl, R., 2023. Public health and expert failure. *Public Choice*, *195*(1-2), pp.101-124.

Li, Y. and Kaiser, G., 2011. *Expertise in Mathematics Instruction: An International Perspective*. New York: Springer.

Lin, M., Sias, R. W., and Wei, Z., 2022. Experts vs. non-experts in online crowdfunding markets. *Georgia Tech Scheller College of Business Research Paper*, (18-22).

Lombardo, M. P., and Deaner, R. O., 2014. You can't teach speed: sprinters falsify the deliberate practice model of expertise. *PeerJ*, *2*, e445.

Malkiel, B., 1985. *A random walk down Wall Street*. 4th edn. New York: Norton.

Mayo, A. T., Woolley, A. W., and Chow, R. M., 2020. Unpacking participation and influence: diversity's countervailing effects on expertise use in groups. *Academy of Management Discoveries*, *6*(2), pp.300-319.

Mieg, H.A., 2006. 'Social and Sociological Factors in the Development of Expertise'. In: Ericsson, K.A., Charness, N., Feltovich, P.J. and Hoffman, R.R. (Eds.), *The Cambridge Handbook of Expertise and Expert Performance,* (pp.741-760) New York: Cambridge University Press.

Mieg, H. A., 2009. Two factors of expertise? Excellence and professionalism of environmental experts. *High Ability Studies*, *20*(1), pp.91-115.

Nunn, R., 2008. 'A Network Model of Expertise', *Bulletin of Science, Technology and Society, 28*(5), pp.414-427.

O'Brien, T.L., 2017. Working Knowledge: organizational location and the construction of expert authority in court, *Social Science Quarterly, 98*(5), pp.1677-1690.

Opdenakker, R., 2006. 'Advantages and disadvantages of four interview techniques in qualitative research. *Open Journal System*, 7(4). Available at: http://www.cpc.unc

Palmer, C. L., and Peterson, R. D., 2016. Halo effects and the attractiveness premium in perceptions of political expertise. *American Politics Research*, *44*(2), pp.353-382.

Peters, K., Daniels, K., Hodgkinson, G. P., and Haslam, S. A., 2014. Experts' judgments of management journal quality: An identity concerns model. *Journal of Management*, *40*(7), pp.1785-1812.

Phillips, J. K., Klein, G., and Sieck, W. R., 2004. Expertise in judgment and decision making: A case for training intuitive decision skills. *Blackwell handbook of judgment and decision making*, *297*, pp.315.

Regoczei, S. B., and Hirst, G., 1992. Knowledge and knowledge acquisition in the computational context. In *The psychology of expertise* (pp. 12-25). Springer, New York, NY.

Robson, C., 2002. *Real World Research*. Oxford: Blackwell Publishing.

Sandelowski, M., 1993. Rigor or rigor mortis: the problem of rigor in qualitative research revisited. *ANS. Advances in nursing science*, *16*(2), pp.1-8.

Santos, J., Torres-Machi, C., Morillas, S., and Cerezo, V., 2022. A fuzzy logic expert system for selecting optimal and sustainable life cycle maintenance and rehabilitation strategies for road pavements. *International journal of pavement engineering*, *23*(2), pp.425-437.

Shanteau, J., 2015. Why task domains (still) matter for understanding expertise. *Journal of Applied Research in Memory and Cognition*, *4*(3), pp.169-175.

Simonton, D.K., 1999. 'Creativity and genius'. In Pervin, L. and John, O. (Eds.) *Handbook of personality theory and research* (2nd ed) (pp.629-652) New York: Guilford Press.

Stasser, G. and Titus, W., 2003. 'Hidden profiles: A brief history, *PsychologicaI Inquiry, 14* (3-4), pp.304-313.

Sternberg, R. J., and Frensch, P. A., 1992. On being an expert: A cost-benefit analysis. In *The psychology of expertise* (pp. 191-203). Springer, New York, NY.

Strauss, A. and Corbin, J., 1998. *Basics of Qualitative Research Techniques and Procedures for Developing Grounded Theory*. 2nd ed. London: SAGE Publications.

Trumbo, D., Adams, C., Milner, M., and Schipper, L. O. W. E. L. L., 1962. Reliability and accuracy in the inspection of hard red winter wheat. *Cereal Science Today*, *7*, pp.62-71.

Ullen, F., Hambrick, D. Z., and Mosing, M. A., 2016. Rethinking expertise: A multifactorial gene–environment interaction model of expert performance. *Psychological bulletin*, *142*(4), pp.427.

Umami, A., Mawandha, H. G., Puruhito, D. D., Purwadi, P., Suparyanto, T., Sudigyo, D., and Pardamean, B. (2023, April). Application of expert system for oil palm smallholder-owned plantations. In *AIP Conference Proceedings* (Vol. 2594, No. 1). AIP Publishing.

Valentin, D., Chollet, S., and Abdi, H., 2003. Les mots du vin: experts et novices diffèrent-ils quand ils décrivent des vins?. *Corpus*, (2).

Yasin, V., Peniarsih, P., Gozali, A., and Junaedi, I., 2022. Application of expert system diagnosis of color blindness with ishihara method with microsoft vb 6.0. *International Journal of Informatics, Economics, Management and Science (IJIEMS)*, *1*(1), pp.13-31.

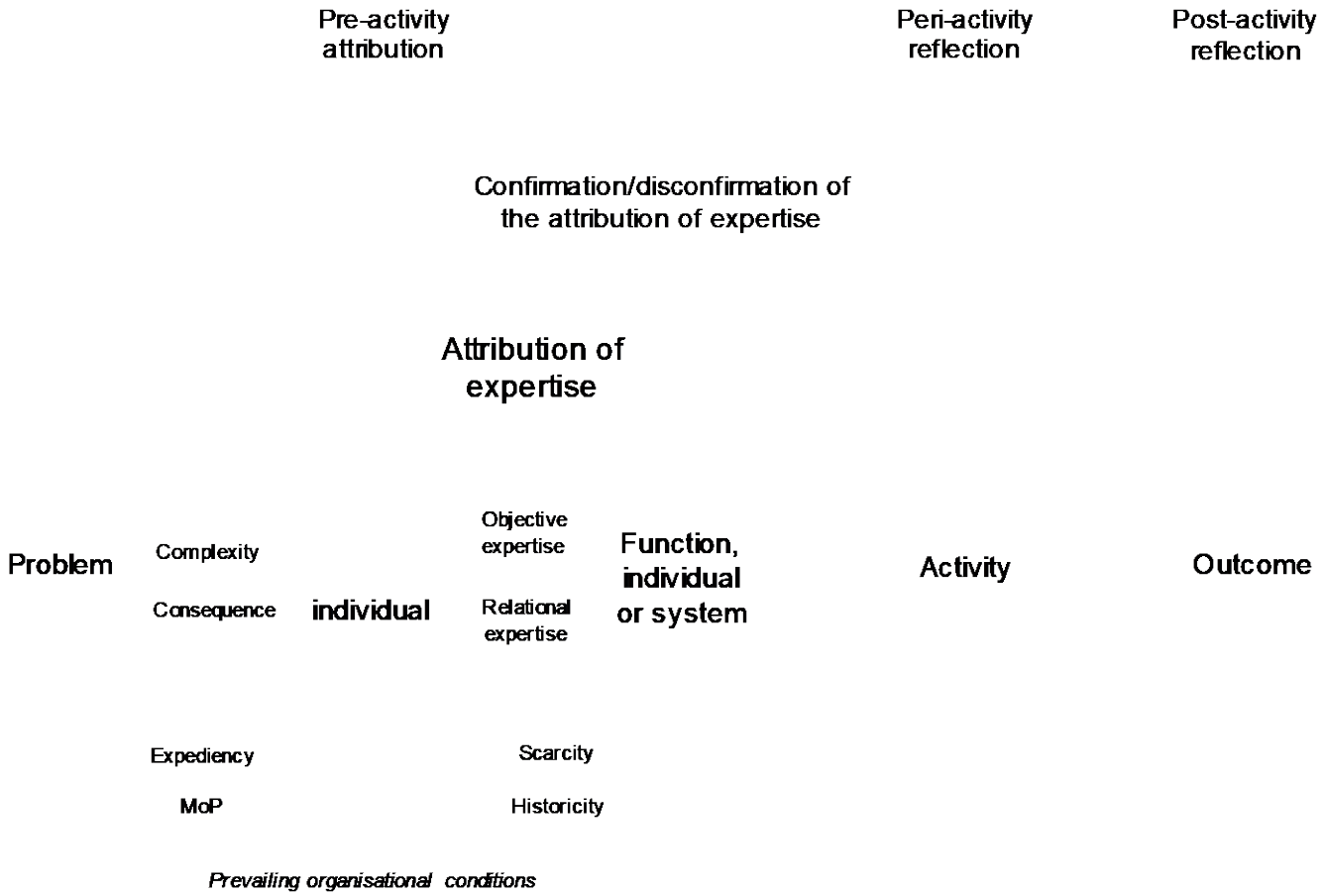


Figure 1: A New Model for the Attribution of Expertise



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The attribution of expertise: modelling relational and organisational factors

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