

The Role of Deliberation in Correcting and Validating Intuition: A Holy Grail for Child-care Professionals or a False Dawn?

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Abstract

The role of deliberation in correcting and validating the more error prone intuition is subject to much interest and debate across a range of professions and disciplines. For child-care professionals, the opportunity to correct errors in their reasoning is crucial, especially where serious consequences can arise from mistakes. This study examines the way deliberation corrects and validates intuition when professionals discuss vulnerable children who have experience of secure care and present a serious risk of harm to other people. Data from twenty-one consultation meetings involving eighty-one professionals are collected and coded. Findings suggest that professionals engage in deliberative thinking to validate intuitive ideas, which is important in providing explanations and justifications. However, deliberation is rarely used to correct errors in intuitive thinking and this gives some cause for concern about the quality of professionals' reasoning in complex child-care cases. Child-care professionals should give greater consideration to their reasoning, especially the role of deliberative thinking in complex cases and where serious risks exist for children. This requires professionals to value errors in, and challenges to their own thinking and recognise the additional cognitive effort necessary for deliberation.

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Keywords: children, deliberation, errors, intuition social work

Accepted: July 2024

Introduction

The role of deliberation in correcting the more error prone intuition is an integral feature of research on what is commonly referred to as ‘dual process models’ of human reasoning (Kahneman and Frederick 2005; Evans 2010; Kahneman 2011). Any opportunity to correct errors in our reasoning is important for many professions, including child-care social work where mistakes can have serious consequences. To date, research tends to rely on controlled environments where participants undertake test-like activities within specific time scales. The relevance of these studies to professionals such as social workers who engage in reasoning across a range of different contexts and less controlled conditions is much less clear. This study adopts a different approach and explores the extent to which deliberation corrects and validates intuition when professionals discuss highly vulnerable children. This matters to child-care professionals in social work and health-related disciplines who want to minimise errors and have robust reasoning in complex child-care cases. The study is conducted in Scotland and the focus on deliberation in a practice context makes it relevant across the UK and internationally for those who want to better understand the reasoning involved when professionals discuss vulnerable children.

Background

The opportunity to correct errors in our reasoning is important for professionals, especially those in childcare where serious consequences can arise from mistakes (Munro 2019). Reasoning is conceptualised as an interaction between intuition and deliberation and has become popularised by what is commonly referred to as dual process models of human reasoning (Sloman 1996; Evans 2010; Kahneman 2011). Whilst dual process models of human reasoning have remained popular in cognitive sciences and other disciplines (e.g. economics, sociology, philosophy), Sheppard *et al.* (2018) point out that social work has been more concerned with knowledge content than the cognitive processes shaping the application of knowledge. The reason for this is not entirely clear. A possible explanation is that the often abstract and elusive nature of deliberation and intuition do not align well with the more practical thinking traditionally required for the social work profession. This is clearly problematic for a

profession that strives to apply theories, ideas and concepts to practice-based situations. The most notable proponent of the dual process model is Nobel Laureate Daniel Kahneman who uses the metaphors of System 1 and System 2 to account for human reasoning (Kahneman and Frederick 2005). The dual process model differentiates between System 1 thinking which is intuitive (fast, experiential, effortless and affective), and System 2 thinking which is deliberative (slow, reflective, effortful and analytical). The model proposes that sound reasoning occurs from an interaction between the two systems (e.g. Epstein 1994; Kahneman 2011; Evans and Stanovich 2013). Essentially, when an individual is confronted with a problem or task that requires some level of reasoning the initial response is to use intuitive thinking and if necessary to engage in deliberative thinking to correct any errors (Kahneman and Frederick 2005). This is primarily due to the lower level of effort required for intuitive thinking, leading to the characterisation of people being ‘cognitive misers’ (Kahneman 2011). The central premise of the dual process models is that intuition always precedes deliberation (Bago and De Neys 2019).

The research on intuitive and deliberative thinking is often highly innovative and involves participants in test-like situations where specific timescales are applied within controlled environments (e.g. the Bat and Ball Question- see Frederick 2005). More recent research, however, affords a broader role to deliberation and presents a less negative view of intuition, and together these alter the way corrections are made when reasoning (Ellenberg 2015). Essentially, the corrective function should not be interpreted as portraying intuitive thinking as always being wrong or that deliberation will ultimately lead to the right answer. Rather, it recognises that intuitive thinking is important for ideas and creativity and when it is robust there is no need for any correction (Marewski and Hoffrage 2016). Deliberation has therefore, a role in validating these intuitive ideas as well as correcting any errors (Bago and De Neys 2019). In doing so, deliberation can add justifications and explanations that help to support a particular viewpoint or persuade others to change their mind (Trouche *et al.* 2014). This broader view of deliberation in correcting and validating intuition is clearly relevant to professional reasoning across a range of practice contexts.

In an attempt to explore deliberation and intuition the current study focusses on professional reasoning in relation to highly vulnerable children who have experience of secure care and present a serious risk of harm to others. The reasons for this are 2-fold. First, children who harm others have often been victimised and experience trauma and abuse (e.g. Allardyce and Yates 2013), and together with their high level of risk (Enosh and Bayer-Topilsky 2015) present challenges to workers’ reasoning on very complex issues and dilemmas. Secondly, the reasoning of professionals is likely to have some gravitas when issues pertinent to a

child's liberty are being discussed, especially given the controversy that persists about the role of secure care in relation to the morality of incarcerating minors, levels of support and effectiveness of outcomes (Sinclair and Geraghty 2008; Roesch-Marsh 2012; Ellis 2018). Intuition is defined in this study as any idea (thought, opinion, suggestion, view, belief) relating to an issue, problem or dilemma (e.g. dealing with a child's drug misuse, assessment, intervention) specific to secure care, which is presented by one of the professionals at the meeting. The assumption is that discussions between professionals about such vulnerable children will provide a suitable context in which to examine their reasoning in terms of the way deliberation might be used to correct and validate intuition.

Methodology

This is a retrospective study focusing on the way professionals express deliberation and intuition in a practice context when discussing vulnerable children who have experience of secure care and present a serious risk of harm to others. The study explores the:

1. extent to which deliberative thinking occurs in discussions between professionals
2. nature of deliberation in correcting and validating intuition.

A retrospective study has merit in offering insight into the realities of practice in terms of the way deliberation and intuition appear in discussions between professionals. Unlike the more typical experimental or test-like methods that aim to generate deliberation and intuition in a controlled environment, the current study explores whether or not such reasoning exists when professionals meet to discuss highly vulnerable children. However, similar to all studies it is important to recognise that deliberation and intuition cannot be measured directly, hence the nature of any reasoning has to be inferred.

Data are obtained from a specialist project that offer a psychological and social work service for children who present a serious threat of harm to other people. The aims and rationale of the project align with the wider Scottish policy and practice context. The key focus of child and family social work in Scotland is the safeguarding of children, supporting families and promoting their well-being. This requires professionals to have a central role in assessing and addressing risk of harm, offering interventions and working with other agencies, including education, health and police. Legislative frameworks such as the *Children (Scotland) Act (1995)*, *Children and Young People (Scotland) Act (2014)* and the National Practice Model (*Getting it Right for Every Child 2006*) aim to guide practice to ensure holistic and effective support

for children and families. It is within this legislative and policy framework that the project, funded by the Scottish government, offers a range of services primarily in supporting those professionals working with the child. This study focuses on the consultation meetings (hereafter, referred to as meetings) which provide an assessment of a child's needs and harmful behaviours. The main outcome of the assessment is to validate existing practice or provide guidance to professionals on alternative assessments or interventions by social work and related agencies. The project also offers direct intervention with a child in the form of psychological support. Given the project does not operate within mainstream social work, any decisions or recommendations to professionals and agencies are not legally binding.

The project carried out 207 meetings over a five-year period, of which twenty-one children (fifteen boys and six girls) had experience of secure care. It is the 21 meetings about each of the children in secure care that are the focus of this study. The period in secure care varies from one month to over seven years with a mean of 14.9 months. Children referred to the project are aged between twelve and eighteen years with referrals for boys (86 per cent) higher than girls (14 per cent) and 96 per cent of the children are of White ethnic origin. The study adheres to internationally accepted ethical guidelines and is approved by the University Ethics Committee. All of the professionals participating in the meetings have given consent for the content to be used for research purposes. The names of professions and those discussed at meetings have been changed to protect their anonymity.

Across the twenty-one meetings, a total of eighty-one professionals were involved. Seventy-two different professionals are involved in the referrals of the children and nine are project staff. Each meeting is audio recorded and attended by between three and nine professionals: usually, two or three professionals attend from the project, including at least one social worker and one psychologist, and between one and four professionals who know the child attend the meeting (i.e. social worker, residential worker, teacher, psychologist, police officer, nurse and psychiatrist). The most frequently represented professionals at meetings are social workers and psychologists, hence the data are not generated across the range of professionals in a balanced way. No service users (children, family members or laypersons) attend the meetings, which is contrary to good principles of participation and involvement (D'Cruz and Gillingham 2017). The project's rationale for excluding service users in the meetings, however, is to allow for a forum where professionals have the opportunity to be more open about their views and feelings and willing to argue and debate with colleagues. All meetings are scheduled for duration of two hours.

Data collection and coding

The audio recording of each meeting is listened by both researchers, and those areas relating to secure care were transcribed. This includes all discussion of the child by the professionals about any aspects of secure care. By focussing on secure care, rather than the content of the entire meeting, the aim is to provide a specific and relevant context in which to examine the reasoning of professionals. As deliberation adds information to ‘correct’ errors or ‘validate’ accurate intuitive ideas (e.g. Bago and De Neys 2019), these two categories are used to code the transcripts:

- Correct—where additional information changes an error in the intuitive idea
- Validate—where additional information supports the intuitive idea

The researchers examine the transcripts for intuitive ideas, and when identified, the text immediately following it is also examined. When additional information corrects or validates the intuitive idea, it is coded as deliberation. To illustrate this process, the following extract involves the intuition and deliberation of a social worker and it relates to concerns about a child’s safety. Steven (fifteen years) has been in secure care for four weeks and does not want to leave. The social worker states:

We have concerns because it was a drug dealer they attacked. The other two are on remand [in prison], so if he is back in the community he is alone.

The intuition conveys an issue about Steven’s safety in the community, which is linked to him remaining in secure care. The social worker adds:

So we think that’s what is prompting him to say he wants to stay in secure. He is going to be cited as a witness against the other boys and he asked me what would happen if he didn’t go as a witness, ‘will they come and drag me?’ And I said yes, so that is bothering him, because he is scared.

This extract is coded as deliberation because it immediately follows the intuition and adds further information that ‘validates’ it by explaining how a fear of reprisals in the community is underpinning Steven’s wish to remain in secure care. If there is any discrepancy between the researchers when coding, the transcripts are re-read and discussed until agreement is reached. In an attempt to enhance clarity, extracts from the transcripts are used and examples of deliberation are placed in italics.

A limitation of the study design is to infer human reasoning from the verbal discussions between professionals without any ability to seek further clarification from participants. Also, unlike test situations or experiments, an examination of audio recordings does not allow for variables such as time limits in the responses of participants to be manipulated or

controlled. Hence, differentiating between intuition and deliberation is not always straightforward. Of course, such problems are not unique to this study and various researchers (e.g. [Evans 2008](#); [Thompson and Johnson 2014](#)) point out that the broad appeal and popularity of the dual process models tend to overshadow the complex processes involved in the exchange of information between different types of reasoning. As clear boundaries are unlikely to exist between intuition and deliberation (e.g. [Pennycook *et al.* 2015](#); [Thompson and Newman 2017](#); [Trippas and Handley 2017](#); [Pennycook 2018](#); [De Neys 2023](#)), the researchers in the current study have to make judgements when differentiating between the two types of reasoning. Inevitably, this involves a degree of subjectivity in the coding process. Given the exploratory nature of this study, factors such as expertise, identity, status, power or anxiety and their influence on the reasoning of professionals involved in the meetings are not considered. Finally, one of the researchers was employed by the project and participated in some of the meetings, which creates a potential for insider bias. In order to maximise the understanding gained from having an insider whilst minimising any unnecessary bias, the researchers tried to ensure personal and professional assumptions did not intentionally distort the data collection and analysis. This was achieved by discussing and checking each other's views and rationale when coding data.

Results

We identified seventy-nine occurrences of deliberation and 244 occurrences of intuition across the twenty-one meetings. This means that approximately one-third of the occurrences of intuition in this study are followed by deliberation when issues about secure care are discussed or to put it another way, the higher cognitive effort required for deliberation ([Kahneman 2011](#)) does not appear to be employed by professionals in the majority of cases when discussing vulnerable children in the context of secure care.

The occurrence of deliberation at individual meetings varies considerably (mean: four, lowest: one, highest: nine). The role of deliberation in validating and correcting intuitive ideas in this study reflects other research (e.g. [Bago and De Neys 2019](#)); however, the balance is skewed overwhelmingly towards validation of their intuition. Of the seventy-nine occurrences of deliberation, seventy-six served to validate and only three served to correct intuitive ideas. This is a surprising finding and suggests that child-care professionals use deliberation to validate intuition considerably more than to correct it. The deliberation appears as explanations and justifications that support and strengthen the preceding intuition. Also, the deliberation can be from the same person who expresses the intuition or another individual who deliberates on what that person has

said. This finding highlights the importance of dialogue between professionals where deliberation is necessary for correcting or validating the intuition of a colleague. Whilst this is a positive aspect when discussing complex child-care cases, it does raise a question about why professionals seldom use deliberation to correct errors of intuitive reasoning. This does not mean errors are ignored, but rather they can be corrected using intuition on its own as well as intuition that is validated by deliberation. In order to explore this further it is useful to consider the way deliberation appears in the meetings.

Correcting errors

The role of deliberation in correcting errors in intuition occurs on only three occasions. The following extract relates to Tony (fifteen years), who is in secure care for the fifth time and absconded after being taken to hospital.

Residential worker: he said 'I'm going to make sure I have to have a hospital visit so I can go on the run again. I can't do three months'. I made staff aware of that and I spoke to him about how negative he was being and that it would delay any progress he is making. But it is the way he is thinking just now.

Project staff: *if I can spin it on his head for a moment. The choices he is making just now are rational because at the moment he has nothing and the future is empty. There is a real logic to what he is doing.*

The deliberation by the project staff is correcting the residential worker's view that the child's thinking is 'negative' and in doing so provides a justification as to why the child's views are indeed 'rational'. This role of deliberation is clearly crucial in addressing errors in our thinking and in providing a justification for an alternative viewpoint. The remaining two occurrences where deliberation is used to correct erroneous intuitive reasoning relate to the inadequate assessment of a child and using threats as a deterrent. The deliberation in each of the three cases provides important additional information to correct an error. Given the complexity of the cases, it is not clear why there are not more occurrences of deliberation being used to correct errors.

This does not mean errors do not happen or are ignored. Professionals at the meetings do identify errors (e.g. misleading perceptions, wrong diagnosis, poor practice, inappropriate service provision) however, this is expressed as intuition rather than deliberation. In the following extract Ian (15 years), who has previous experience of secure care, was not re-admitted despite the social worker and other professions requesting secure care at a screening panel. A few weeks later he attended another screening panel following a very serious incident where he tortured a child.

Project staff: what was different when you went back to the secure screening?

Social worker: it was probably that offence, torture, and the impact on the victim. We did believe at the first screening that he met the criteria for secure, but the decision was made by the Chief Social Worker not to place him in secure.

Project staff: there has to be some questions asked.

Social worker: I think so.

The discussion is clearly stating that the decision not to return Ian to secure care was a mistake and it resulted in a child being tortured and Ian eventually being re-admitted to secure care. In stating 'there has to be some questions asked' the intuition of the project staff is conveying the view that an error has been made. Despite the importance of this matter it is not followed by deliberation. The reason for this is not entirely clear; however, it might be that there is no need for deliberation because the professionals are in agreement or that the error was someone else's. Of course, another possibility might be a reluctance of the professionals at the meeting to be critical of a Chief Social Worker. Irrespective of the reason, it is important to recognise the value of intuition in correcting errors.

There are also six occurrences across the meetings where deliberation is used to validate the intuition that corrects an error. Alan (seventeen years) has been in secure care for six months and is due for release, and is described by the social worker as 'the most complex case he has ever worked with'. In the following extract the deliberation of the project staff challenge the view that he is not ready for any intervention.

Project staff: I think he is a candidate for really intense intervention. I understand people's reluctance to do that. *This is complex trauma and he is trying to find a way to tolerate who he is and what he has been through. I'm not a believer in withholding therapy. I think it is our job to find something that fits even if that means sitting tolerating playing snap for five hours, five times per week. So I do not support that therapeutic model.*

The intuition is expressing disagreement with the strategy of withholding therapy for Alan and is followed by deliberation that serves to validate it by justifying why intervention is necessary. Of course, this does not mean the deliberation is right (i.e. what is best for the child), but it does provide important validation in relation to a disputed area of practice. This seems particularly apt in this case given the child's history. Alan suffered 'horrendous and prolonged sexual abuse and neglect as a young child' and 'now attacks women and children'. The project staff are disagreeing with the position of the specialist mental health team who want to contain Alan in secure care and offer no interventions before he is released back into the community in five weeks. Despite the complexity and level of risk in this case, there is no deliberation at the

meeting by those professionals who know Alan. Instead, a strategy by the specialist mental health team, prior to the meeting, appears to be accepted unquestioningly by those working with Alan until it is challenged by the project staff. A lack of deliberation in some instances not only shows a failure to correct errors or validate intuition, it might serve as a warning about the quality of reasoning by some professionals.

Value of validation

The majority of occurrences of deliberation serve to validate intuition. The validation presents as justifications and explanations that add support to a particular viewpoint or perspective as expressed by the intuitive idea. In the following extract, the social worker uses deliberation to show why Anne (sixteen years), who has been in secure care for four months, is experiencing difficulties reading.

Social worker: the head of education at the secure unit had said she was doing some sort of reading with her. Anne covered the same word in a page of reading and the first time she read the word she read it carefully and the second time she struggled with reading it. *So she found that difficult to understand. It could be her reading has been affected by post-traumatic stress, attachment and all the chaos that is in Anne's head. If you sit and talk with Anne she is a clever girl and she can talk about various things and understand extremely well what's going on. She can argue her case, so her knowledge and understanding is good.*

The deliberation validates the intuition about a problem with the child's 'reading'. In doing so, the social worker explains some of the problems in Anne's life as well as her abilities. The validation of intuition in offering explanations and justifications is a recurring theme in the way professionals reason. It is clearly a positive aspect of practice and shows how validating intuition can enhance an understanding of the child.

The value of the validation is, however, dependent to some extent on the additional meaning the intuition provides to the deliberation. Hence, whilst the deliberation adds important information, its meaning is shaped by the information provided by the intuition. In the following extract about Fiona (sixteen years), who is in secure care for the second time, the deliberation adds to the intuition of the psychologist in terms of the family's secrecy.

Psychologist: I questioned mum and dad about that to try and explore it a bit further and she said that they [brothers] know she doesn't live in the family home and are living elsewhere, but they don't elaborate on where she might be.

Project staff: the brothers are not in the family home?

Psychologist: Well, two live out with the family home and one lives in it. But they now know where she is because when Fiona was living in secure her brother, one of the brother's lives in [nearby area], and he visited once close to when she was leaving secure care.

Teacher: *it seems like a family who are able to keep secrets then.*

The deliberation by the teacher validates the intuition by adding insight to explain an important family dynamic in that they are able to keep 'secrets'. On its own, however, the deliberative thinking is not obvious and conveys little insight. Only when linked to the intuition does the meaning of the deliberation become more apparent. The additional information that deliberative thinking provides seems to require intuition for its meaning to be fully understood. Subsequently, it might be too simplistic to view intuition as 'error' prone or the 'poor cousin' of deliberation.

Any value of deliberation in a practice setting depends, at least to some extent, on how it is acted upon by professionals. The following extract from a social worker relates to concerns following an incident where Neil (fifteen years), who has been in secure care for eight months, was involved in a premediated and violent assault on a female member of staff.

Social worker: I'm very wary of him since the incident because it was so out of the blue and unpredictable. *That's what really worries me, that he could turn on a person he has no grudges against, so quickly, so easily and so destructively.*

The deliberation validates the intuition by explaining why the social worker is 'wary' of the child. Despite the importance of the social worker's deliberation in highlighting risk, it seems to have little influence on the plans to move Neil back home with his mum and siblings. There are in fact three occurrences of deliberation by the referral team and they all highlight serious concerns about Neil's behaviour, yet neither challenges or questions the plan to return the child back home. In contrast, the deliberation of the project staff follows on from the intuition of the head teacher and leaves no doubt about their opposition to the plan that Neil should return home in three months.

Headteacher: there is not much change and you don't get a sense he has grown or learned anything or is able to cope. It is really worrying, how vicious he is to young children.

Project staff: *there is a sadistic element to him, which is quite unusual. There is a passive element to his aggressive behaviour and there is an instrumental, very functional aspect to the violence. He probably quite likes being horrible to people and that demeaning behaviour is worrying-urinating on someone is so demeaning. It is worth noting that he assaults people to the face, not pushing them around, so I think he needs a lot of work before he gets put out. He really should not go home.*

This deliberation of the project staff validates the intuition of the headteacher in terms of the child’s ‘vicious’ behaviour and in doing so opposes the plan to return the child home. The referral team change their position during the meeting and agree that Neil should not be released. This type of reversal happens in five separate meetings, whereby a plan to move the child out of secure care in the near future is changed by the end of the meeting. It appears that professions will on occasion allow their own deliberation to be overruled by the deliberations of other professionals. Hence, it seems plausible that some deliberation is deemed more robust or useful, which in this case is that of the project staff. Another possibility is that the deliberation by the referral group failed to correct errors in the plan to return the child home, which resulted in a weak argument or position that is readily overturned by the deliberation of the project staff. Any potential value of deliberation might, therefore depend on how it is formulated and acted upon.

Timing of reasoning in a group context

The times when deliberation occur during meetings suggest a level of cognitive and emotional fatigue in complex child-care cases. [Figure 1](#) shows the occurrence of deliberation by the referral group and project

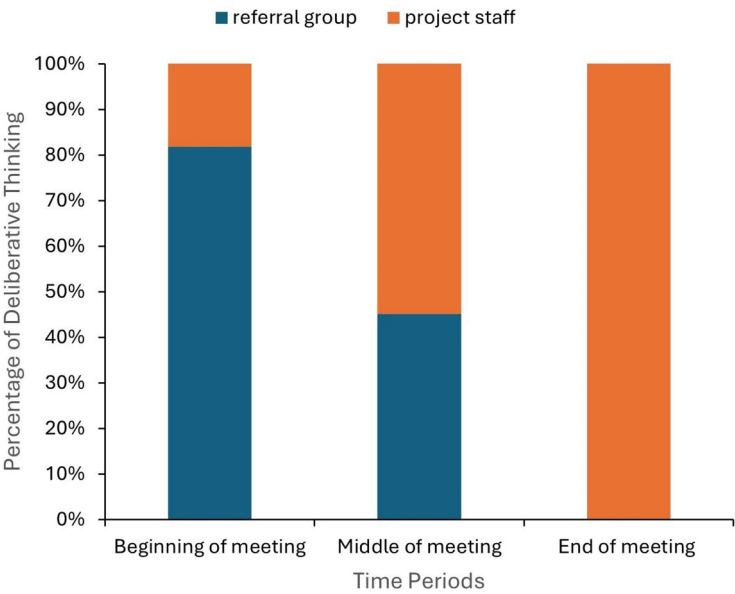


Figure 1: Occurrence of deliberation during meetings.

staff at the beginning (0–40 min), middle (41–80 min) and end of meetings (81–120 min).

The referral group is more likely to engage in deliberation (n: 47) at the beginning (n: 27) and middle (n: 20) of meetings compared to the project staff who engage in deliberation (n: 32) at the beginning (n: 3), middle (n: 17) and end (n: 12) of meetings. This pattern of deliberation might reflect a consultation-type meeting where the referral group presents the case and then the project staff offer their views and opinions. Another factor explaining the pattern of deliberation might be the increasing levels of cognitive fatigue experienced by some professionals during the meetings. The fatigue is not derived solely from disturbing and harrowing events (e.g. abuse, violence), but instead relate to the impact and responsibility of working with certain high-risk children. A social worker conveys the emotional impact of working with Ian.

We are terrified. I lie awake at night worrying about it. We [referring to the Senior Social Worker] both came out of that secure care meeting and you feel that weight off your shoulders in that you don't have to deal with this every day at work. Even although I co-work Ian it roughly equates to 10 cases, there is so much going on. This secure care is a break for Ian and for the local community.

The project staff have the emotional distress of listening to harrowing events, but they do not have the same responsibility as the referral group who are actively involved in the case. As such, they might not experience the same level of cognitive fatigue as a meeting progresses, hence they are still able to engage in the more effortful deliberation towards the end of the meeting, albeit slightly less than at the midpoint. Given the relatively few occurrences of deliberation in many of the meetings, any decline over the duration of a meeting is problematic because it limits scope for validating and correcting intuition at key periods. In particular, key decisions and plans for a child are often devised or consolidated at the end of a meeting: a time when deliberation might be particularly crucial, but in limited supply from some professionals.

Discussion

Findings from this study show most of the deliberation by professionals has a role in validating intuition. The deliberation is of particular value because it enhances an understanding of the child and the complexities involved in their care. A willingness and ability to provide an explanation or justification for one's insight is clearly crucial and validation serves this purpose in the deliberative thinking of professionals. These findings align with other studies (e.g. [Kahneman 2011](#); [Evans and Stanovich 2013](#)) in that deliberation adds important information to key

areas of reasoning. The popular view of deliberation having a role in correcting errors in intuition (e.g. [Evans 2010](#)) is much less apparent in the findings. There is limited evidence in this study of deliberation being used to correct errors and this raises some concern about professionals' reasoning. It is however, important to recognise that professionals in this study use intuition to correct errors. Also, there are occurrences where deliberation validates that correction. This reflects [Helm's \(2011\)](#) view that it is too simplistic to steer social workers away from intuition and towards deliberation. There appears to be an uneasy and perhaps a somewhat paradoxical relationship between intuition and deliberation. On the one hand intuition is necessary to provide information that shapes our understanding of deliberation. On the other hand intuition has to be curtailed in certain practice situations to allow for the more effortful deliberation to occur.

Correcting errors in test-like experiments, typical of much research on intuitive and deliberative thinking (e.g. [Frederick 2005](#)) and where there is a definitive answer, is perhaps more straightforward and less emotive when compared to complex practice situations where there is often no single solution and right or wrong answer. We agree with [Bonnefon \(2018\)](#) who suggests there are similarities between deliberative thinking and critical thinking, and further research is required to clarify where practitioners might best select or prefer different forms of thinking. Whilst deliberation should not be seen as the holy grail for child-care professionals, neither should it be considered a false dawn.

Some caution is necessary when trying to infer reasoning from discussions by child-care professionals. The distinction between intuition and deliberation is not always obvious ([Thompson and Johnson 2014](#)) and problems of clarity and meaning are likely to become more, rather than less, acute when exploring reasoning in practice settings where multiple variables co-exist (e.g. staff interaction, expertise, experience, motivation, ability, power imbalance). As with any small-scale study using a specific service user group, some care is required when making assertions or statements that are generalisable to mainstream social work and related professions. Moreover, the extent to which discussions at meetings are an accurate reflection of a professional's reasoning is not entirely obvious. Professionals might, for example, deliberate over certain information, but feel less able or willing to verbalise it in some contexts such as formal meetings. Such problems are not insignificant when examining human reasoning.

Policy and practice implications

Various reports and research in child welfare express concern over the quality of practitioners' thinking and analytical skills ([Munro 2011](#);

Turney and Ruch 2016; Heron and Lightowler 2020), hence it is important to have a more robust insight into professionals' reasoning in practice settings. Deliberation can correct and validate intuition in ways that develop our understanding and this is clearly important to child-care professionals. It is worth restating that deliberation provides a monitoring role and it is misleading for professionals to assume it is always correct or intuition is always wrong. The key point is that deliberation adds robustness to our thinking and having more of it to validate or correct intuition is essential when working with vulnerable children in complex situations.

The relatively low levels of deliberation in some of the meetings in this study suggest that some professionals are indeed 'cognitive misers' in respect of their deliberative thinking. Of course, this is not to suggest professionals are lazy thinkers per se or that all intuition must be followed by deliberation. Rather their reasoning needs re-balanced with the more effortful deliberative thinking when discussing important aspects of complex cases. We suggest professionals and organisations should engage in four key areas to enhance deliberative thinking in practice situations (Figure 2).

The four key areas can be explained as:

1. *Self-monitoring*: individuals should give more attention and effort to validating and correcting their own ideas, especially where there is complexity and/or the consequences for children and other people are high. Organisations can support this by providing ongoing training and development opportunities that focus on intuitive and deliberative thinking.
2. *Peer interaction*: increasing interaction between colleagues and in ways that encourage ideas to be questioned and challenged can create opportunities for more deliberative thinking within and across professional groups. Organisations should encourage multi-agency practice forums where professionals can discuss and debate

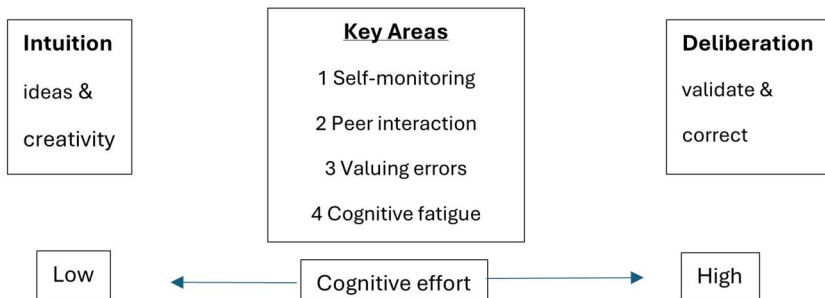


Figure 2: Four areas to enhance deliberative thinking in practice.

complex cases and in ways that allow for greater engagement with deliberative thinking.

3. *Valuing errors*: mistakes in reasoning should be considered a positive feature because it presents opportunities to correct errors, and in doing so, provides a more robust understanding of risk and protection issues in childcare. Organisations should create a more open culture that encourages diversity of thought, a safe environment for expressing ideas and dissenting opinions and where mistakes are seen as learning opportunities.
4. *Cognitive fatigue*: professionals should recognise the additional cognitive effort required for deliberative thinking and the likelihood of fatigue occurring at certain periods in their practice. This requires organisations to provide resources that give professionals sufficient time to think and within manageable workloads.

Any implementation of these key areas is likely to be limited without wider changes to practice. Organisational and cultural factors such as excessive workloads (Baker 2008), pressure on workers to make hasty judgements even when contra indicators are evident (Taylor and White 2006) and increasingly bureaucratic practices (Turney and Ruch 2016) are a reality for many social workers and other child-care professionals, yet are unlikely to enhance the quality of reasoning in a practice context. Also, the increasing anxiety associated with making the 'wrong' decision in organisations where a blame culture has become the norm is widely reported (e.g. Adams *et al.* 2002; Dekker 2007; Warner 2015; Armstrong *et al.* 2018) and this might affect professionals' willingness to be transparent in correcting their own errors and that of colleagues. These factors are not conducive to quality 'think time', including the extra cognitive effort required for deliberative thinking. It will be disappointing if the role of deliberation within human reasoning, which has been embraced across numerous disciplines, remains marginalised in child-care practice by those organisations that have a statutory duty to protect children.

Acknowledgements

We would like to thank the staff at the Interventions for Vulnerable Youth Project when at the University of Strathclyde.

Conflict of interest statement. None declared.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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British Journal of Social Work, 2025, 55, 243–260

<https://doi.org/10.1093/bjsw/bcae137>

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