

Exploring moral heuristics in managerial decision-making. The dialectic of duty and consequence

Mark Crowder^{1,*}, Marilena Antoniadou²

- ¹ Department of Strategy, Entrepreneurship and Sustainability, Manchester Metropolitan University, Manchester M15 6BH, UK
- ² Department of People & Performance, Manchester Metropolitan University, Manchester M15 6BH, UK
- * Corresponding author: Mark Crowder, m.crowder@mmu.ac.uk

ARTICLE INFO

Received: 20 September 2023 Accepted: 21 October 2023 Available online: 1 November 2023

doi: 10.59400/apr.v2i1.510

Copyright © 2023 Author(s).

Applied Psychology Research is published by Academic Publishing Pte. Ltd. This article is licensed under the Creative Commons Attribution License (CC BY 4.0). http://creativecommons.org/licenses/by/4

ABSTRACT: This paper explores the use of moral heuristics within a large public sector organisation in the UK. Managers within the case study organisation were interviewed and directly observed over a four-year period, using a grounded theory methodology, to examine the ways in which they made decisions. Whereas the extant literature primarily focuses on hypothetical situations, this paper delves into the application of the heuristic in real-world situations. The results reveal widespread use of moral heuristics within the organisation, accompanied by a clear dichotomy between 'soft' and 'hard' business units. Moral heuristics find extensive application in the former but encounter opposition in the latter. Consequently, the paper argues that managers in 'soft' work environments are more inclined to employ moral heuristics compared to their counterparts in other parts of the workplace. This study contributes to knowledge in three ways: proposing a new conceptualization of the moral heuristic, identifying instances of its use, and illustrating how it operates in real-world situations. The significance of this paper lies in its demonstration of how the heuristic is practically employed to make crucial, potentially life-changing decisions.

KEYWORDS: decision-making; grounded theory; local authority; moral heuristics; public sector

1. Introduction

The field of decision-making, employing cognitive heuristics, has undergone extensive examination, with a burgeoning literature that identifies the moral logics and philosophies individuals utilise in decision-making processes^[1-6]. A literature review reveals that some heuristics remain relatively underresearched. Notably, moral heuristics have received comparatively little attention. Additionally, research in this area tends to concentrate on how individuals might behave in hypothetical situations, neglecting an adequate exploration of decision-making in real-world contexts^[7,8]. While sporadic attempts have been made to connect theory with real-world examples^[9], these endeavours often aim to simulate the real world rather than study it in situ.

This paper addresses these concerns, thereby making a significant contribution to knowledge and paving the way for a new research domain. The study presented in this paper has importance as it relies on extensive empirical evidence to scrutinise the practical applications of moral heuristics in the real world. It distinguishes itself from prior research by delving into the actual decision-making process rather than assessing how decisions 'should' be made in hypothetical scenarios.

Focusing specifically on comprehending the process of moral decision-making in a public context, this study employs a grounded theory approach to unveil the inherent logic within the data, foregoing the traditional method of prompting respondents to choose from a predetermined set. Consequently, it refrains from providing an objective evaluation of decision quality and refrains from examining the extent of errors, if any, that might be intrinsic to the utilisation of moral heuristics.

2. Literature review

2.1. Cognitive heuristics

Cognitive heuristics have long been studied in a wide variety of contexts, ranging from how people bid for artworks^[10] to decision-making by crowds^[11]. Essentially, cognitive heuristics are general rules of thumb that tell decision-makers what aspects to pay attention to, what to ignore, and what strategy to take^[12]. To quote a single example, Garb^[13] argues that when making a diagnosis that a patient has schizophrenia, a clinician is likely to use a heuristic—a shortcut—because the patient can be compared to a typical patient with schizophrenia, or the typical symptoms of schizophrenia can be compared to the present case. This is more efficient than diagnosing all patients from 'first principles'.

In the 1970s, Daniel Kahneman and Amos Tversky identified the three heuristics that have underpinned subsequent research^[14], namely anchor and adjustment, availability, and representative. More recent research has expanded the list, and it now includes several dozen heuristics ranging from the general, such as the affect heuristic^[15], to the very specific, for instance, Apte and Hong's^[16] technical two-rule iteration, the recognition heuristic^[17,18] and the take-the-best heuristi^[19]. Many of these heuristics were prevalent in the case study organisation, but this paper focuses on moral heuristics because, as will be shown below, the findings of the study add considerably to knowledge.

2.2. Moral heuristics

Moral heuristics, as defined by Cosmides and Tooby^[20], are "decision rules that generate intuitions about fairness and justice, punitiveness and approval, right and wrong." Examples include principles like 'always keep your promise'^[21] and 'it is wrong to hurt some people for the benefit of others'^[22]. Although the exploration of moral judgement traces back to Dewey^[23], a significant portion of the literature stems from articles published in 2005 in the journal 'Behavioural and Brain Sciences'. In these articles, Cass Sunstein contends that moral heuristics can sometimes misfire and lead to errors^[24], sparking debate among other authors. Sunstein then concludes the discussion by responding to the issues raised during the debate^[25].

The study of moral heuristics has gained prominence^[26], with researchers investigating their application within legal contexts^[27], the collapse of Lehman Brothers and the global financial crisis^[28], medical settings^[29], and individuals' behaviour in conflict situations^[30]. Intriguingly, Gigerenzer^[17] posits little distinction between moral heuristics and other heuristics, arguing that they share the same fundamental building blocks. A considerable body of literature examines the nature of morality, and many sources have been proposed for moral heuristics. These include evolution^[31]; social processes^[32,33]; how the particular situation is framed^[19]; national and religious cultures^[34], or even the use of a foreign language^[35]. A detailed discussion of morality is beyond the scope of this paper because the study is not concerned with examining the development of moral viewpoints or morality over time. Instead, the focus is on understanding how morality is used to make decisions—an overview of the debates and competing theories in relation to morality^[36].

Much of the previous research has focused on the effectiveness or ineffectiveness of moral heuristics rather than the processes used when the heuristics are applied^[7,21]. This paper addresses this by focusing on the underlying processes used by decision-makers. It has also been suggested that moral heuristics are different from other intuitive heuristics because the 'classical' heuristics of Kahneman and Tversky are based on 'facts' whereas moral heuristics are based on subjective viewpoints^[37,38]. However, others disagree^[39,40] and argue that the 'classical' heuristics are also prone to subjective factors.

Moral heuristics are illustrated by Sunstein^[24], who presents two related hypothetical scenarios (originally formulated by Thomson^[41]), which are sometimes referred to as the 'trolley versus footbridge' problem. Sunstein^[24] presents the following discussion:

"The [...] trolley problem asks people to suppose that a runaway trolley is headed for five people, who will be killed if the trolley continues on its current course. The question is whether you would throw a switch that would move the trolley onto another set of tracks, killing one person rather than five. Most people would throw the switch."

"The [...] footbridge problem, is the same as that just given, but with one difference: the only way to save the five is to throw a stranger, now on a footbridge that spans the tracks, into the path of the trolley, killing that stranger but preventing the trolley from reaching the others. Most people will not kill the stranger. But what is the difference between the two cases?"

This problem has been researched extensively^[8,36], and studies show that people are less opposed to throwing the switch than to pushing a bystander onto the tracks. In general, the literature reflects people's responses to hypothetical situations^[8,23] such as the 'trolley versus footbridge' example. For instance, Bartels and Pizarro^[7] studied 14 simulated moral dilemmas but did not consider the extent to which people might respond differently in real-life situations than they do in the laboratory. Indeed, Sunstein^[24] recognises the drawbacks of research into hypothetical scenarios and suggests that moral heuristics would benefit from a practical study of real-life situations. More recently, Chorus^[32] stressed the need to gain new insights into moral decision-making, something this paper directly addresses.

One of the main debates in the heuristics literature has centred on the question of which principles best guide moral dilemmas^[7], forcing people to decide between so-called utilitarian and deontological perspectives. Utilitarianism is concerned with taking action for the greater good^[42], whereas deontology involves taking action out of a sense of duty^[43]. In essence, a deontological approach describes a set of rules or principles that provide constraints on what kinds of actions are morally permissible, whereas utilitarianism argues that what is morally required is determined by one simple rule—whether or not an action brings about the greatest total well-being^[6]. Indeed, Baron^[44] states that the main feature of utilitarianism is 'its focus on consequences'. This contrasts with the deontological view that the motives of the decision-maker, and not the consequences of the decision, determine the degree of rightness or wrongness of the decision^[43,45].

Tobler et al. [46] provide an example of the two viewpoints:

"Someone who employs the don't kill rule can justify that rule on a utilitarian basis (such a rule brings about the most happiness), but also on a deontological basis (life has moral value and thus must be protected). In the first case, the rule is justified by referring to values that are themselves not moral (such as happiness); in the second case, the underlying values are themselves moral".

In support of the dual process of moral judgement, it has been shown that people with higher working memory capacity tend to be more likely to make utilitarian judgments^[47]. Also, when the

response time or the cognitive resources are limited, utilitarian judgements are less likely^[48,49]. Weber and Ancker^[50] argue that moral heuristics are predicated on the adoption of a utilitarian position because they depend on a consensus of morally correct answers. Others disagree and suggest that the heuristics have a deontological basis because they are determined by cultural norms^[36,51]. In fact, as Bartels and Pizarro^[7] observe, in the 'trolley versus footbridge problem', most people dislike the idea of throwing a bystander onto the tracks, and therefore a utilitarian approach is effectively being rejected because 'the greater good' is being disregarded. Because the present study adopts a grounded theory methodology and seeks to understand the processes by which moral heuristics are used rather than their effectiveness, it remains neutral on this issue.

Finally, the distinction between moral heuristics and moral principles is rather fuzzy^[52]. This is not helped by the fact that '[most moral principles are] so vague that it is hard to know precisely what to do in a particular situation. How exactly does one love one's neighbours?'^[53]. It has, therefore, been argued that moral heuristics and moral principles are actually the same thing^[54]. For instance, Bartsch and Wright^[21] suggest that there is little difference between heuristics such as 'punish, and do not reward, betrayals of trust' and principles such as 'do not knowingly cause human death'. Other authors disagree and regard the two as entirely separate, arguing that the key difference is that a principle is always true for a particular decision-maker, whereas a heuristic is dependent on the particular situation^[25].

Table 1. Categories of moral heuristic^[24].

Category Sub-Category	Examples
Morality and risk regulation	
Cost-benefit analysis	A company decides whether or not to take certain safety precautions for its products and they undertake a cost-benefit analysis where measures could not be justified if they would cost \$100 million and save only four lives.
Emissions trading	In a number of countries, polluters are typically given a license to pollute a certain amount, and the licenses can be traded on the market.
Betrayals	A betrayal of trust is likely to produce anger. If a security guard steals from his employer, people will be angrier than if the identical act is performed by someone in whom trust has not been reposed.
Morality and punishment	
Pointless punishment	Penalties should be a proportional response to the outrageousness of the act.
Probability of detection	To increase deterrence, the law might increase the severity of punishment or increase the likelihood of punishment.
Playing God: Reproduction, nature, and sex	
n/a	Consider human cloning. The ethical and legal issues here are extremely difficult and moral heuristics play a large role in judgments.
Acts and omissions	
n/a	Harmful acts are generally worse than harmful omissions. A murderer is typically more malicious than a bystander who refuses to come to the aid of someone who is drowning. The murderer wants his victim to die, whereas the bystander need have no such desire.

Source: Adapted from Sunstein^[24].

Sunstein^[24] offers a four-fold categorization of moral heuristics, although it is interesting to note how his own thinking has changed over time. In 2003, he explores the hypothesis that some widely accepted rules of morality are heuristics, and outlines "several possibilities" for different types of heuristic^[55]. By 2005, he now treats these 'possibilities' as separate 'categories' of moral heuristic. **Table 1** outlines Sunstein's four categories of moral heuristics. This table also serves to provide illustrative examples of

how moral heuristics were viewed prior to our study, and it thereby helps to illustrate what is new in our research.

These categories have yet to be fully researched in the literature. However, it should be stressed that Sunstein^[24] himself states that this catalogue is meant to be illustrative rather than exhaustive.

In **Table 1**, words such as 'anger' and 'outrage' make it clear that some of these 'sub-heuristics' relate to emotion. Indeed, Shah and Oppenheimer^[15] have identified an 'outrage heuristic'. For instance, when people seek punishment for a crime, one of the factors considered is the outrageousness of the crime. For instance, killing a baby may result in a longer prison sentence than killing an adult^[15]. This is analogous to the 'pointless punishment' heuristic outlined in **Table 1**, and this means that the outrage heuristic is actually a moral heuristic.

With this background, we aimed to raise similar debates with the managers within the organisation under study to explore the moral elements that they use for their decision-making. Having outlined the key literature, the following section outlines the study's context and methodological framework.

3. Study context

This paper investigates the utilisation of moral heuristics within a significant city authority in the United Kingdom (UK). The organisational framework adheres to a recognised departmental structure, wherein each sector is overseen by a chief officer selected from the predominant profession within that department, such as a social worker, teacher, or housing officer. The organisational structure encompasses numerous 'service delivery' departments (e.g., health, planning, schools) and various central 'core' departments (e.g., finance, legal, chief executive) that do not directly engage in service provision^[56]. While the organisation under examination designates these units as 'business units', it otherwise adheres to the aforementioned principles. The organisation employs a workforce exceeding 5000 individuals, with 47 business units delivering services ranging from Bereavement to Highway Maintenance.

The selection of this organisation for scrutiny was predicated on several considerations. Primarily, the recent accolade of a prestigious international award bestowed upon the organisation elevated the host city's global standing and attracted substantial financial investment. This event precipitated alterations in the quantity and nature of decisions made throughout the council, presenting a unique opportunity for examination. Additionally, a significant organisational restructuring had recently transpired, and the managers pivotal to these decisions remained available and expressed willingness to engage in the research, providing insights into the restructuring's impact on their respective service areas. Lastly, the organisation's extensive scope and diverse services across numerous business units led the authors to anticipate a rich array of evidence conducive to supporting their research within various contexts.

4. Methodology

4.1. Grounded theory framework

Given that the primary aim of this study is to investigate the moral judgements inherent in individuals' decision-making processes, grounded theory was deemed an apt choice. Unlike approaches that begin with a pre-existing theory to validate or invalidate, grounded theory seeks to elucidate social processes by studying them in their natural settings. This inductive approach initiates with an exploration of a specific area of study, allowing themes to organically emerge^[57]. Theory is not imposed but generated from the data itself^[58]. The researcher collects and codes data, grouping them into categories, and

iteratively refines the emerging theory through comparisons with both data and existing literature, employing memo writing and theoretical coding^[59]. The outcome of this rigorous, constant comparative analysis is a comprehensive, intricate theory^[60]. Grounded theory does not yield explicit findings or facts; rather, it produces a set of well-developed concepts interconnected through statements of relationship, constituting an integrated framework capable of explaining or predicting phenomena^[61].

A common critique of grounded theory is its purported lack of generalisability, but this criticism misconstrues the methodology's purpose. Grounded theory does not assert generalisability; instead, it generates hypotheses for subsequent testing in future studies^[61]. Criteria for evaluating the quality of a grounded theory encompass fit, workability, relevance, and modifiability^[61]. Fit demands consistency between the theory and data, gauged by the alignment of theoretical concepts with the incidents or phenomena studied^[60]. The meticulous use of grounded theory in this study inherently met the criterion of fit^[60,61].

Workability necessitates that the analysis address the primary concerns of participants^[62]. Extensive respondent validation ensured that the emerging theory accurately reflected underlying processes, mitigating the reliance on observational data that might be prone to misinterpretation.

Relevance dictates that the research should be meaningful to participants^[60]. The active engagement of managers guaranteed relevance, as they identified the issues pertinent to their context^[63]. Moreover, the integration of empirical data and literature resulted in findings contributing new knowledge potentially applicable beyond the organisation under study, affirming the study's relevance.

Modifiability, the final criterion, asserts that a grounded theory must remain adaptable as circumstances evolve^[64]. This inherent adaptability is facilitated by constant comparison, evident from the study's outset, where evolving ideas and modifications to the theory occurred alongside the gathering of more data. This paper encourages ongoing modification of its theory through further research. Thus, this study demonstrates fit, workability, relevance, and modifiability, meeting Glaser's criteria for validity^[61,62].

4.2. Organisational sample, data collection and respondents

Glaser repeatedly says that 'all is data'^[62,63]. Hence, any combination of data collection methods can be used^[60], although the primary methods of data collection adopted in this research were observation and semi-structured interviews. Consequently, grounded theory methodological procedures were applied to all empirical data, including the literature^[65,66], and not just to the interview data.

In line with grounded theory methodology, the study started broadly and then narrowed its focus as the core category began to emerge^[67]. Initially, the authors simply observed what was happening at meetings and in the normal day-to-day business of the organisation, and over time, this began to shape their thoughts. Over a four-year period, 93 managers were interviewed and directly observed to examine the ways in which they made decisions. A total of 513 decisions were examined, and moral heuristics were identified in 49 decisions.

Notes were made at the time of the interviews/observations, or as soon as possible thereafter. These notes did not always include verbatim transcripts, but they did illustrate the general themes. Although Glaser^[61] recommends against taking notes during interviews, it is frequently necessary to gather data from several people within a short period of time. Thus, notes had to be made at the time in order to ensure that key data were not forgotten or misremembered. Despite Glaser's^[61] objections, Lings and

Lundell^[68] observe that note-taking is a common approach among grounded theory researchers, and this gave the authors some comfort that they were not completely diverging from recommended practice.

4.3. Analysis

There is a potentially significant problem with the chosen approach because it can be difficult to identify decision-making processes by observation since the same decision can potentially be obtained in several ways. The main issue is that the underlying cognitive processes cannot be directly observed^[69], and must be inferred rather than discovered directly^[70]. Therefore, in this study, heuristics were identified on the basis that they best described real-life decisions. It should be emphasised that, in accordance with grounded theory methodology, all inferences were subjected to rigorous scrutiny and discussed with the managers involved. This level of respondent validation, combined with close adherence to grounded theory methodology, ensured that the analysis reflected the views of the participants and not those of the author, and consequently produced an objective assessment.

To quote a single example, there had been a national outcry about organs that had been taken from deceased children and had been retained against the knowledge of the families. The 'culprits' were a hospital and a university, and there was concern about how these organs should be treated. The issue had nothing whatsoever to do with the organisation under study, but it fell to the organisation as the burial and cremation authority to organise dignified and proper arrangements. The manager made a moral decision and justified his actions as follows:

"I dedicated a plot of land in [one of the council's cemeteries], organised the burial arrangements, and made sure that the service was dignified. I also made a moral sub-decision that the remains would be buried instead of being cremated, because I felt it was the right thing to do—just in case it was ever possible in the future to identify some of the remains, then they could be exhumed if necessary and handled in accordance with the families' wishes. You couldn't do that with cremation."

Some months later, the same situation arose again. However, this time there was a precedent, and the manager simply made the same decision again.

"I made assumptions. The first time, I'd made a good decision—or at least, it was a good one from my point of view. I was happy with it. Morality wasn't an issue this time. I'd already been there and done that. The second time was straightforward. Because the problem was the same, and because the actions worked the first time, I just made the assumption that they'd work second time too and did the same thing again."

In other words, the same decision was made twice, but using a different process on each occasion, it was possible to identify that the moral and representative heuristics had been used, respectively. Grounded theory laid bare the underlying processes, and this single example illustrates why it was an appropriate methodology to allow this study to meet its research objectives.

5. Findings

The use of moral heuristics was identified within 14 business units, while another 14 felt very clearly that moral decisions were 'wrong', and actively opposed their use. **Figure 1** illustrates the spread of moral heuristics across the organisation.

Business units using moral heuristics

Community Safety
Neighbourhoods
Environmental Health
Bereavement
Primary Schools
Secondary Schools
Youth Offending Service
Youth & Play Service
Adult Social Care
Corporate Parenting
Schools Safeguarding
Family Support
Adult Safeguarding

Employment & Skills

Business units not using moral heuristics

Planning
Parking
Trading Standards
Licensing
Internal Audit
Risk Management
Corporate Finance
Corporate Procurement
Legal Services
Chief Exec Support
Partnerships
Health & Safety
Corporate Performance
Emergency Planning

Figure 1. Use of moral heuristics within the organization.

The following section outlines the situations where moral heuristics were used, and typical examples are provided to illustrate how managers applied the heuristics in practice. This is followed by a consideration of the opposing viewpoint—when moral heuristics were not used—together with managers' perception of why this was the case.

5.1. Use of moral heuristics

Moral heuristics were identified in 49 decisions. Seventeen of these (35%) were strategic decisions (i.e., decisions regarding the purpose and direction of an organisation), and the remainder (n = 32) were operational decisions (i.e., day-to-day decisions). A typical illustration of a strategic decision is outlined in the following example, which explores what might happen to excess heat arising from the cremation process.

Within the UK, there is a legal requirement for crematoria to filter cremation gases to remove mercury and other harmful substances^[71,72]. In the case study organisation, a heat conversion unit had been installed to reduce the heat from the cremation emissions from 1300 °C down to 200 °C. Only then could the emissions be fed through the filtration equipment. The Bereavement Manager had to make a decision about what would happen to the 'lost' heat and explained his thinking thus:

"I decided to recycle it and use it to heat the chapels. It was just a case of installing a heat exchange plate, and we've connected to the water from that and we reuse the heat. It only cost around five or six thousand [pounds] to put the equipment in place, but on a normal day's operating at the crematorium, we can now provide enough heat to heat a leisure centre—swimming pool, central heating and water supply. That's how much heat we can reuse—huge savings."

When he explained how he made this decision, it was clear that moral heuristics were key:

"There are moral issues about recycling heat from cremations. Some would argue that we're saving money from the dead, and that it's gruesome. But there is another moral aspect too. We're living in a green and environmental age. There's a moral argument that we should be conserving energy and recycling whatever we can—other morality comes into play. Then there's a third argument. If we could save this amount of money it would mean that we can keep our charges down. It could be argued that morally we shouldn't charge the Earth for our services at a time when families are at their lowest ebb. You can't reconcile all sides of the argument. I've tried. I've spent ages going over the arguments in my mind, and I can't find a way to satisfy all extremes. So, I've done what I believe to be morally right."

"I realise that this is one of those situations where there isn't a 'right answer' and that plenty of people will disagree with me, and I'm expecting a lot of criticism. I can take that so long as I feel that it's the right thing to do in my own mind."

The manager's reliance on moral heuristics is evident in this example. This decision was taken after much reflection, after the manager had tried in vain to find an alternative solution.

Operational decisions made using moral heuristics were more numerous. All related to the day-to-day working of the organisation. They ranged from technical issues in post-mortems to taking children into care, but these were all different in nature and cannot easily be grouped together for illustrative purposes. In view of this, two examples are presented, and these are representative of all:

"On a daily basis, we have to get kids interested in education. Because every child is different, what works for one won't work for the next person. It's all based on our own perspective of the family situation. Maybe the mum's gone off the rails or had a breakdown. Maybe the child has got some medical need. We need to identify the need and do what seems right to us. In these situations, there's no right or wrong answer, and we need to make a quick decision about what's best for the child. Your own morality is all you've got to go on." (Schools Safeguarding)

"I'm only called in when there's a crisis. Maybe there's some family problem and I have to defuse it straight away. I've taken children to McDonalds. I've taken them go-carting. I've sent people to anger management courses. It all depends. I often don't have any real evidence to back me up—I just have to do what I think is right." (Family Support)

Across the organisation, managers had similar views about the need for moral decision-making, as the following quotes illustrate:

"We're not in a business. We can't say that we'll stop making T-shirts and make something else instead. We can't stop caring for vulnerable children because it costs too much." (Youth Offending Service)

"You can't suddenly decide to stop your service just because of cost. You owe it to the family. You have a moral duty." (Bereavement)

This implies that moral decisions are underpinned by a deontological perspective: A sense of duty.

5.2. Non-use of moral heuristics

Despite the widespread use of moral heuristics, there were many parts of the organisation that opposed their use. Rules were there to be obeyed, and the right thing to do was to follow them—morality should not be an issue. Indeed, this study found that the same decision could be taken in different ways. Some business units took a moral stance, whereas others took another perspective. The following example, illustrated by quotes from several parts of the organisation, offers a clear illustration of this.

Following the global financial crisis, the UK government imposed a series of austerity measures, one of which was a 28% reduction in the amount of government grant that was paid to the organisation under study over a three-year period. The result was a need to reduce staff numbers by approximately 2000 posts. Some managers viewed this as a moral decision:

"I had to balance two fundamentally conflicting priorities—the need to make savings against the need to protect front line services. I chose to protect existing staff and delete my vacant posts." (Schools Safeguarding)

"This is a moral issue. My staff have been loyal to me over the years under difficult circumstances. Now they need me to look after them. I need to repay them. It's the right thing to do." (Corporate Parenting)

"This was an ideal chance to get rid of the people I don't like, and I'd have got away with it. People would have understood. But that was morally wrong. I had to protect my current staff as best I could. I deleted my vacant posts, got rid of overtime, supported early retirement for those who wanted to leave. I did everything I could because it was the right thing to do." (Youth Offending Service)

However, managers in other business units took the same decision (to protect current staff), but for very different reasons. For instance:

"In reality, it's hard to get rid of someone who's not performing. I heard about x in Environmental Health who was suspended for gross misconduct, appealed and came back. So why bother going through all the hoops? It's easier to get rid of vacancies." (Planning)

"It's cheaper to keep your existing staff than trying to recruit new staff." (Internal Audit)

"If I lose my current staff then the corporate policy is that I'd lose the post. So, I'd rather keep some dodgy staff than lose the posts for good." (Chief Exec Support)

In other words, different parts of the organisation had different views of the same situation. This difference of opinion is even more starkly displayed in the following example. Procedure dictated that payment for cremations must be received 'up-front'; otherwise, the cremation could not proceed. One day, a large funeral arrived at a crematorium, but in this case, payment had not yet been made. This was the funeral of a six-year-old girl, and the family had begun to get angry and threatening when crematorium staff said they could not proceed. The Bereavement manager was called. He described what happened:

"When I got there, all hell was about to break loose. The family were upset, and the delay was causing other funerals to back up and form a backlog down the driveway. I had no time. I had to make an instant decision."

"I took a moral decision. What was the right thing to do? I decided to cremate without payment. The right thing to do was to let the cremation proceed. The family had already suffered terribly. They'd lost their six-year-old child, and now here we were adding to their distress because of a procedure. I did what felt right. We could always chase the payment at a later stage. The situation cooled straight away, and the funeral passed off smoothly. Later, I got a lovely letter from the family thanking me for my decision and for the way I'd handled things. And we got the payment too."

However, not everyone was pleased:

"When Internal Audit found out what I'd done, they had a different view, and I was disciplined." (Bereavement Manager)

"Yes, we disciplined the Bereavement manager]. Procedures are there for a reason. They're there to protect individuals as well as the council. What would have happened if it had gone wrong? We'd have had no comeback if the family had decided not to pay. The decision cost the council a few hundred pounds, and there was no guarantee that we'd get our money back. Now we've set a precedent. If this family can get away without paying, how can we possibly enforce it for other funerals? The right thing to do was to follow procedure." (Internal Audit)

Each party was convinced that they had acted properly:

"This decision cost the council money. We spent taxpayers' money so that [the Bereavement manager] could sleep at night." (Internal Audit)

"I stand by my decision. It was the right thing to do. I'd do the same thing again." (Bereavement Manager)

There are many similar examples, but in all cases, participants were quite certain that their decisions were not based on their emotional responses. Respondents recognised that certain situations are likely to generate strong emotions on the part of the decision-maker, but they were adamant that these did not directly influence their decisions. For instance:

"Emotional decisions are different. If I am dealing with a paedophile, I have a certain emotional response. A revulsion, and maybe even a hatred of the perpetrator. I can't respond based on my emotions—in fact I am trained to ignore my emotions. My emotions bring to mind my morals, and I use those as a sort of shortcut to guide me as to what I think is right or wrong in a given situation. I just do what I think is right. Maybe the right thing to do is to help the paedophile—it goes against every emotion I possess, but it might still be the right thing to do." (Adult Social Care)

Despite the variety of decisions for which the moral heuristic was used, a surprising degree of commonality was found, and it was possible to develop a single flow chart that process-maps the cognitive processes that managers adopt when using moral heuristics. **Figure 2** is the result of respondent validation and is the product of several iterations.

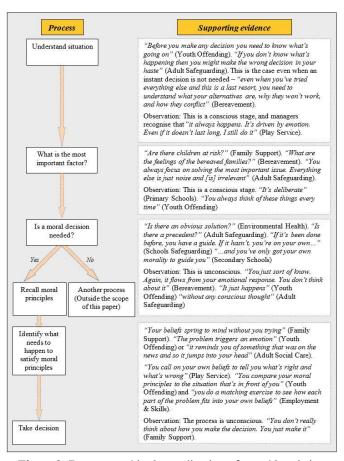


Figure 2. Process used in the application of moral heuristics.

Managers felt that the essential difference between instant and reflective decisions comes in the 'understand situation' box.

"This box is where you decide how bad or how urgent the situation is" (Youth Offending), "whether you need to sort out a life-and-limb situation" (Adult Social Care), or "whether you've got time to reflect and weigh things up" (Environmental Health). "Once you get past that stage, the rest of the chart is the same for instant decisions and for more thought-out decisions." (Play Service)

Therefore, managers were satisfied that there was no need for a separate flow chart to reflect the different degrees of urgency. Although the flow chart illustrates the processes involved, it was clear from our analysis that moral decisions are not straightforward and that the 'right answer' may depend on one's point of view. An interesting question, therefore, is whether the differing views on moral decision-making map onto different parts of the organisation; this is explored further below.

6. Discussion

6.1. 'Soft' and 'hard' business units in the context of moral heuristics

This study examined 513 decisions, with forty-nine of these decisions using moral heuristics. As stated above, **Figure 1** illustrates which parts of the organisation used moral heuristics and which did not. These can be thought of as 'soft' and 'hard' business units, respectively. 'Soft' business units "require tact and diplomacy" (Secondary Schools) and focus on "situations where there's no right answer...only opinion" (Primary Schools). They deal with vulnerable groups such as bereaved families (Bereavement), adults or children in care (e.g., Adult Social Care; Schools Safeguarding), and people on low incomes (e.g., Corporate Parenting). They, therefore, contrast with procedurally-based—or 'hard'—business units. Some of these services are "obviously hard" and deal with regulatory matters such as the law (Legal Services), compliance with procedures (e.g., Internal Audit), and budgetary control (Corporate Finance). Here, the emphasis is on "fact and logic [rather than] personal interaction with vulnerable people" (Internal Audit). Managers in these units were very clear that moral heuristics had no place in their decision-making. One manager even stated that "moral decisions are wrong. Full stop" (Internal Audit). Other business units are 'less obviously hard', such as Planning, Parking, and Trading Standards, but they viewed themselves as falling into the 'hard' category.

An analogy might be made with 'hard' and 'soft' problems or systems. A hard problem is structured and has a clear answer; whereas a soft problem is unstructured and has no clear answer^[73,74]. Similarly, in hard systems approaches, such as Structured Systems Analysis and Design Methodology (SSADM), firm and structured techniques and procedures are used to provide unambiguous solutions to clearly defined problems^[75]. In soft systems approaches, such as Soft Systems Methodology (SSM), a range of approaches are available as appropriate, and these may be comparatively unstructured and less rigid^[73]. It should be noted that SSM is often considered to apply only to soft systems, but its originator (Peter Checkland) argues that it is a framework that can be used for both 'soft' and 'hard' problems^[73,76]. A detailed discussion of systems theory (including SSADM and SSM) is outside the scope of this paper.

However, there are parallels between the present study and hard/soft problems and systems. In the organisation under study, 'soft' departments deal largely with issues such as "personal feelings and emotion" (Youth Offending Service) where "there is no single answer that is always correct" (Youth and Play Service) (i.e., soft problems), whereas 'hard' departments deal largely with "matters of fact" (Corporate Performance) that "have a right answer" (Corporate Procurement) (i.e., hard problems). Similarly, 'soft' departments have to deal with "new problems there and then on the spot" (Bereavement)

to find "an answer that satisfies [the manager's] own moral feelings" (Family Support) (i.e., soft systems); whereas 'hard' departments can work through problems "logically using formulas and equations" (Corporate Finance) and can automate much of the process "using computers to get the right answer" (Corporate Finance) (i.e., hard systems).

Sinnott-Armstrong et al. [33] and Brännmark [77] suggest that once people have formed their own moral heuristics, they tend to stick with them and are reluctant to vary them. However, this does not explain the difference of opinion, and this study suggests that there may be a deeper source for the disparity. 'Soft' business units are 'close' to day-to-day decisions that have direct impacts on vulnerable people. The situation facing the decision-maker is fluid and may be changing in front of them, as was the case in the examples above. 'Hard' business units generally operate at a greater distance from the decision. They are not exposed to the immediacy of the situation, and they can respond once the situation has resolved itself. In the example above, the Bereavement Manager was operating in the "heat of the moment" and was faced with the need to make a rapid decision, whereas Internal Audit only became involved some days after the event and could take time to reflect and weigh up potential implications and consequences. The importance of the 'distance from the decision', echoes aspects of the literature. For instance, the directness of the intervention in the 'trolley vs. footbridge' problem presented above has been suggested as a reason why people are less opposed to throwing the switch than pushing a bystander onto the track [38]. Therefore, in addition to providing new knowledge, this study also supports previous research into moral heuristics.

6.2. Towards a new conceptualisation of the moral heuristic

Within the organisation under study, there are a number of very specific moral heuristics in use, such as "put the needs of the children first" (Primary Schools; Schools Safeguarding; Secondary Schools), "do not take any action that will put staff at risk" (Community Safety), and "treat people as you would like to be treated yourself" (Bereavement). These are broadly similar to moral heuristics identified above in the literature, such as "avoid and punish betrayals of trust" [78]. However, within the literature, other heuristics have generalised definitions. For instance, the linear compensatory heuristic has a number of variants, including weighted and unweighted, but still has a single definition [79], and the definition of the availability heuristic does not identify everything that is recalled to mind; only that decisions are made on the basis of how readily things come to mind [80]. In other words, other heuristics have been generalised (e.g., 'the' availability heuristic, 'the' representative heuristic), and moral heuristics in the literature are very specific. To aid the development of our new theory of moral heuristics, this study therefore sought to establish whether a single, more conceptual, general definition could be derived that encompassed the multiple 'specific' moral heuristics—'the' moral heuristic.

Managers were asked how they would define moral heuristics. In this way, any definition arising out of this study would be grounded in the data. Exactly the same words were used by several managers: "it's the right thing to do" (Bereavement; Community Safety; Play Service; Youth Offending). At first glance, this appears to be simply 'just another moral heuristic' similar to those above, but upon closer inspection, it is actually an all-encompassing heuristic that includes the 'specific heuristics'. Managers agreed, noting that "this definition covers all the others" (Family Support), and therefore "you don't need all the specific definitions" (Environmental Health).

However, as Internal Audit stated, "everyone sets out to do the right thing. Nobody sets out to make a bad decision." Therefore, although 'doing the right thing' reflected the views of many, it was inadequate by itself as a definition. It was therefore necessary to revisit the definition to see if it could be refined.

After discussions with eleven managers from 'soft' business units, the following definition was agreed to accurately capture their views:

A new definition of the moral heuristic: The moral heuristic can be defined as taking a decision on the basis of what the decision-maker believes to be morally right.

The implication of this is that this paper argues that there is 'the' moral heuristic and not 'a' moral heuristic, and that the 'specific' moral heuristics are merely applications of this higher, more conceptual version. Having developed this idea, moral heuristics in the literature were revisited, and it was clear that the definition neatly encompassed heuristics such as "people should not be permitted to engage in moral wrongdoing for a fee"[24], "always keep your promise"[21], and "it is wrong to hurt some people for the benefit of others"[23]. Indeed, the more the authors looked, the more the literature 'slotted into' this definition, and it therefore began to seem to be increasingly correct. But not all managers were satisfied—particularly those in 'hard' business units. As one observed, "everyone's moral position is different" (Risk Management). However, this paper does not seek to defend or justify moral decisions; it only aims to identify and explain the processes used. This paper therefore encourages future researchers to empirically test this new definition and the idea of 'the' moral heuristic and to refine the definition considering their findings.

7. Conclusion and contributions

This paper has systematically investigated the application of moral heuristics within a sizable public sector organisation in the UK. While existing academic literature has identified hypothetical scenarios where moral heuristics might be employed, our study contributes significantly by showcasing their real-world application in making consequential decisions, potentially impacting lives. Notably, these heuristics manifest prominently in 'soft' organisational sectors, whereas 'hard' segments view them with scepticism, with some outright opposing their utilisation on the grounds of moral objection.

As a key contribution, we have formulated a novel theory of moral heuristics, encapsulated in three crucial dimensions. Firstly, we present a refined definition that elevates the moral heuristic to a conceptual level akin to other heuristics, asserting that decisions are made based on the decision-maker's perception of moral rightness. This crystallises into a singular version, denoted as 'the' moral heuristic. Secondly, in contrast to prior studies, which predominantly explored moral heuristics from a hypothetical standpoint, our research delves into their practical application. Notably, a discernible discrepancy surfaces between 'hard' and 'soft' business units, as illustrated in **Figure 1**, delineating instances of moral heuristic utilization. Thirdly, we offer a comprehensive process map (**Figure 2**) elucidating the cognitive components of the heuristic, explicating its application in our study. This not only sheds light on the practical application within our research but also provides a framework for further exploration, both empirically and in the existing literature. This process map builds upon similar cognitive maps we have already developed for the conjunctive, EBA, and WADD heuristics^[81] and it therefore adds to the wider corpus of heuristics knowledge beyond the specific context of this paper.

While the presented evidence in this paper is compelling and derives from a comprehensive four-year study, it is imperative to acknowledge the organisational specificity inherent in this exploration. The emphasis on the significance of workplace dynamics prompts consideration for future research endeavours. This paper establishes a novel domain of inquiry, and subsequent studies could extend their focus to other large organisations, diverse global contexts beyond the UK, or situations likely to elicit divergent responses from 'soft' and 'hard' service providers. The potential avenues for exploration are

substantial, and the authors eagerly anticipate engaging in ongoing scholarly discourse on this emerging topic.

Author contributions

Conceptualization, MC and MA; methodology, MC; software, MC; validation, MC and MA; formal analysis, MC and MA; investigation, MC and MA; resources, MC; data curation, MC; writing—original draft preparation, MC and MA; writing—review and editing, MC and MA; visualization, MC and MA; supervision, MC; project administration, MC. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest.

References

- 1. Laczniak GR, Murphy PE. Fostering ethical marketing decisions. Journal of Business Ethics. 1991; 10(4): 259-271. doi: 10.1007/bf00382965
- 2. Forsyth DR. Judging the morality of business practices: The influence of personal moral philosophies. Journal of Business Ethics. 1992; 11(5-6): 461-470. doi: 10.1007/bf00870557
- 3. McDonald G, Pak PC. It's all fair in love, war, and business: Cognitive philosophies in ethical decision making. Journal of Business Ethics. 1996; 15(9): 973-996. doi: 10.1007/bf00705577
- 4. Ericson M. Towards a sensed decision making approach. Management Decision. 2010; 48(1): 132-155. doi: 10.1108/00251741011014490
- 5. Kahneman D. Thinking, Fast and Slow. Farrar, Strauss and Giroux; 2011.
- 6. Liu Y. A literature review of a cognitive heuristic: The anchoring effect. Highlights in Business, Economics and Management. 2023; 11: 271-279. doi: 10.54097/hbem.v11i.8110
- 7. Bartels DM, Pizarro DA. The mismeasure of morals: Antisocial personality traits predict utilitarian responses to moral dilemmas. Cognition. 2011; 121(1): 154-161. doi: 10.1016/j.cognition.2011.05.010
- 8. Greene JD, Cushman FA, Stewart LE, et al. Pushing moral buttons: The interaction between personal force and intention in moral judgment. Cognition. 2009; 111(3): 364-371. doi: 10.1016/j.cognition.2009.02.001
- 9. Woodbine GF, Amirthalingam V. Dishonesty in the Classroom: The Effect of Cognitive Dissonance and the Mitigating Influence of Religious Commitment. Journal of Academic Ethics. 2013; 11(2): 139-155. doi: 10.1007/s10805-013-9185-8
- 10. Chai F, Peng K, Yu F. Pricing Aesthetics: How Cognitive Perception Affects Bidding for Artworks. Social Behavior and Personality: an international journal. 2016; 44(4): 541-554. doi: 10.2224/sbp.2016.44.4.541
- 11. Burghardt K, Alsina EF, Girvan M, et al. The Myopia of Crowds: A Study of Collective Evaluation on Stack Exchange. SSRN Electronic Journal. 2016. doi: 10.2139/ssrn.2736568
- 12. Greenberg J, Baron RA. Behavior in Organizations, 9th ed. Pearson Education; 2008.
- 13. Garb HN. The representativeness and past-behavior heuristics in clinical judgment. Professional Psychology: Research and Practice. 1996; 27(3): 272-277. doi: 10.1037/0735-7028.27.3.272
- 14. Hardin W. Behavioral research into heuristics and bias as an academic pursuit. Journal of Property Investment & Finance. 1999; 17(4): 333-352. doi: 10.1108/14635789910271737
- 15. Shah AK, Oppenheimer DM. Heuristics made easy: An effort-reduction framework. Psychological Bulletin. 2008; 134(2): 207-222. doi: 10.1037/0033-2909.134.2.207
- 16. Apte C, Hong SJ. Predicting Equity Returns from Securities Data. Advances in Knowledge Discovery & Data Mining: AAAI Press; 1995.
- 17. Gigerenzer G. Moral Intuition = Fast and Frugal Heuristics? In: Sinnott-Armstrong W (editor). Moral Psychology. The Cognitive Science of Morality. MIT Press; 2008. pp. 1-26.
- 18. Gigerenzer G, Goldstein DG. The recognition heuristic: A decade of research. Judgment and Decision Making. 2011; 6(1): 100-121. doi: 10.1017/s1930297500002126
- 19. Newell BR, Weston NJ, Shanks DR. Empirical tests of a fast-and-frugal heuristic: not everyone takes-the-best. Organ Behav Hum Decis Process. 2003; 91: 82-96. doi: 10.1016/S0749-5978(02)00525-3
- 20. Cosmides L, Tooby J. Evolutionary Psychology, Moral Heuristics, and the Law. Heuristics and the Law. Dahlem University Press; 2006: 175-206. doi: 10.7551/mitpress/3488.003.0012
- 21. Bartsch k, Wright JC. Towards an intuitionist account of moral development. Behavioral and Brain

- Sciences. 2005; 28(4): 546-547. doi: 10.1017/s0140525x05260090
- 22. Hahn U, Frost JM, Maio G. what's in a heuristic? Behavioral and Brain Sciences. 2005; 28(4): 551-552. doi: 10.1017/s0140525x05320097
- 23. Dewey J. Human nature and conduct. Henry Holt; 1922.
- 24. Sunstein CR. Moral heuristics. Behavioral and Brain Sciences. 2005a; 28(4): 531-542. doi: 10.1017/s0140525x05000099
- 25. Sunstein CR. On moral intuitions and moral heuristics: a response. Behavioral and Brain Sciences. 2005b; 28(4): 565-570. doi: 10.1017/s0140525x05460094
- 26. Bruers S. Speciesism as a Moral Heuristic. Philosophia. 2013; 41(2): 489-501. doi: 10.1007/s11406-013-9420-v
- 27. Wilkinson Ryan T, Baron J. Moral Judgment and Moral Heuristics in Breach of Contract. Journal of Empirical Legal Studies. 2009; 6(2): 405-423. doi: 10.1111/j.1740-1461.2009.01148.x
- 28. Fisher C, Malde S. Moral imagination or heuristic toolbox? Events and the risk assessment of structured financial products in the financial bubble. Business Ethics: A European Review. 2011; 20(2): 148-158. doi: 10.1111/j.1467-8608.2011.01615.x
- 29. Rosenbaum L. Beyond Moral Outrage—Weighing the Trade-Offs of COI Regulation. New England Journal of Medicine. 2015; 372(21): 2064-2068. doi: 10.1056/nejmms1502498
- 30. DeScioli P, Kurzban R. A solution to the mysteries of morality. Psychological Bulletin. 2013; 139(2): 477-496. doi: 10.1037/a0029065
- 31. DeScioli P. The side-taking hypothesis for moral judgment. Current Opinion in Psychology. 2016; 7: 23-27. doi: 10.1016/j.copsyc.2015.07.002
- 32. Chorus CG. Models of moral decision making: Literature review and research agenda for discrete choice analysis. Journal of Choice Modelling. 2015; 16: 69-85. doi: 10.1016/j.jocm.2015.08.001
- 33. Sinnott-Armstrong W, Young L, Cushman F. Moral intuitions as heuristics. In: Doris JM (editor). The moral psychology handbook. Oxford University Press; 2010. pp. 246-272. doi: 10.1093/acprof:oso/9780199582143.003.0008
- 34. Singer P. Intuitions, heuristics, and utilitarianism. Behavioral and Brain Sciences. 2005; 28(4): 560-561. doi: 10.1017/s0140525x05410092
- 35. Geipel J, Hadjichristidis C, Surian L. How foreign language shapes moral judgment. Journal of Experimental Social Psychology. 2015; 59: 8-17. doi: 10.1016/j.jesp.2015.02.001
- 36. Waldmann MR, Wiegmann A. A double causal contrast theory of moral intuitions in trolley dilemmas. In: Ohlsson S, Catrambone R (editors). Proceedings of the 32nd Annual Conference of the Cognitive Science Society. Cognitive Science Society; 2010.
- 37. Haidt J, Kesebir S. In the forest of value: Why moral intuitions are different from other kinds. In: Plessner H, Betsch C, Betsch T (editors). Intuition in judgment and decision making. Lawrence Erlbaum; 2008. pp. 209-229
- 38. Sunstein CR. Moral Heuristics and Risk. In: Roeser S (editor). Emotions and Risky Technologies: The International Library of Ethics, Law and Technology. Springer; 2010. pp. 3-16.
- 39. Gerrig RJ. Moral judgments in narrative contexts. Behavioral and Brain Sciences. 2005; 28(4): 550-550. doi: 10.1017/s0140525x05300094
- 40. Gigerenzer G. Moral Satisficing: Rethinking Moral Behavior as Bounded Rationality. Topics in Cognitive Science. 2010; 2(3): 528-554. doi: 10.1111/j.1756-8765.2010.01094.x
- 41. Thomson JJ. The Trolley Problem. The Yale Law Journal. 1985; 94(6): 1395. doi: 10.2307/796133
- 42. Bentham J. An Introduction to the Principles of Morals and Legislation. Dover Publications; 2007.
- 43. Kant I. The Metaphysical Elements of Ethics. International Alliance Pro-Publishing; 2011.
- 44. Baron J. Biting the utilitarian bullet. Behavioral and Brain Sciences. 2005; 28(4): 545-546. doi: 10.1017/s0140525x05250094
- 45. Ritov I. Cognitive heuristics and deontological rules. Behavioral and Brain Sciences. 2005; 28(4): 559-560. doi: 10.1017/s0140525x05400096
- 46. Tobler PN, Kalis A, Kalenscher T. The role of moral utility in decision making: An interdisciplinary framework. Cognitive, Affective, & Behavioral Neuroscience. 2008; 8(4): 390-401. doi: 10.3758/cabn.8.4.390
- 47. Moore AB, Clark BA, Kane MJ. Who Shalt Not Kill? Individual Differences in Working Memory Capacity, Executive Control, and Moral Judgment. Psychological Science. 2008; 19(6): 549-557. doi: 10.1111/j.1467-9280.2008.02122.x
- 48. Suter RS, Hertwig R. Time and moral judgment. Cognition. 2011; 119(3): 454-458. doi: 10.1016/j.cognition.2011.01.018
- 49. Conway P, Gawronski B. Deontological and utilitarian inclinations in moral decision making: A process dissociation approach. Journal of Personality and Social Psychology. 2013; 104(2): 216-235. doi:

- 10.1037/a0031021
- 50. Weber EU, Ancker JS. Towards a taxonomy of modes of moral decision-making. Behavioral and Brain Sciences. 2005; 28(4): 563-564. doi: 10.1017/s0140525x05440091
- 51. Bucciarelli M, Khemlani S, Johnson-Laird PN. The psychology of moral reasoning. Judgment and Decision Making. 2008; 3(2): 121-139. doi: 10.1017/s1930297500001479
- 52. Fried BH. Moral heuristics and the means/end distinction. Behavioral and Brain Sciences. 2005; 28(4): 549-550. doi: 10.1017/s0140525x0529009x
- 53. Argyle M. The psychology of interpersonal behaviour, 4th ed. Penguin; 1983.
- 54. Weirich P. Regulation of risks. Behavioral and Brain Sciences. 2005; 28(4): 564-565. doi: 10.1017/s0140525x05450098
- 55. Sunstein CR. Moral Heuristics. SSRN Electronic Journal. 2003. doi: 10.2139/ssrn.387941
- 56. Appleby A, Clark A. Quality management in local government, the same as in the private sector but different. Leadership & Organization Development Journal. 1997; 18(1): 29-36. doi: 10.1108/01437739710156268
- 57. Strauss AL, Corbin J. Basics of qualitative research: Techniques and procedures for developing grounded theory, 2nd ed. Thousand Oaks, CA: Sage; 1998.
- 58. Birks M, Mills J. Grounded theory: A practical guide. Sage; 2022.
- 59. Glaser BG, Strauss AL, Strutzel E. The Discovery of Grounded Theory; Strategies for Qualitative Research. Nursing Research. 1968; 17(4): 364. doi: 10.1097/00006199-196807000-00014
- 60. Glaser BG. Theoretical sensitivity: Advances in the methodology of grounded theory. Sociology Press; 1978.
- 61. Glaser BG. Doing Grounded Theory: Issues and Discussions. Sociology Press; 1998.
- 62. Glaser BG. Constructivist Grounded Theory? Forum: Qualitative Social Research. 2002; 3(3).
- 63. Glaser BG, Holton J. Remodelling Grounded Theory. Forum: Qualitative Social Research. 2004; 5(2).
- 64. Corbin J, Strauss AL. Basics of Qualitative Research, 3rd ed. Sage; 2008.
- 65. Douglas D. The human complexities of entrepreneurial decision making: a grounded case considered. International Journal of Entrepreneurial Behavior & Research. 2005; 11(6): 422-435. doi: 10.1108/13552550510625159
- 66. Urquhart C. Grounded theory for qualitative research: A practical guide. Sage; 2011.
- 67. Geiger S, Turley D. Grounded theory in sales research: an investigation of salespeople's client relationships. Journal of Business & Industrial Marketing. 2003; 18(6/7): 580-594. doi: 10.1108/08858620310492437
- 68. Lings B, Lundell B. On the adaptation of Grounded Theory procedures: insights from the evolution of the 2G method. Information Technology & People. 2005; 18(3): 196-211. doi: 10.1108/09593840510615842
- 69. Glöckner A, Betsch T. Multiple-reason decision making based on automatic processing. Journal of Experimental Psychology: Learning, Memory, and Cognition. 2008; 34(5): 1055-1075. doi: 10.1037/0278-7393.34.5.1055
- 70. Anderson CJ. Alternative perspectives on omission bias. Behavioral and Brain Sciences. 2005; 28(4): 544-544. doi: 10.1017/s0140525x05230091
- 71. UK Government. Environmental Protection (England) (Crematoria Mercury Emissions Burden Sharing Certificate) Direction 2010. Available online: https://www.iccm-uk.com/iccm/wp-content/uploads/2020/09/iccm_DEFRA-CremtoriaMercuryEmissionsDirection2010-2.pdf (accessed on 29 September 2023).
- 72. UK Government. PGN 5/2(12) Statutory Guidance for Crematoria. Available online: https://www.gov.uk/government/publications/crematoria-process-guidance-note-52 (accessed on 29 September 2023).
- 73. Checkland PB. Soft Systems Methodology: A thirty year retrospective. Systems Research and Behavioral Science. 2000; 17(1): 11-58. doi: 10.1002/1099-1743(200011)17:1+<::AID-SRES374>3.0.CO;2-O
- 74. Wilson B. Systems: concepts, methodologies and applications, 2nd ed. John Wiley; 1990.
- 75. Clayton AMH, Radcliffe NJ. Sustainability: a systems approach. Earthscan; 1996.
- 76. Checkland PB, Poulter J. Learning for Action: A short definitive account of Soft Systems Methodology and its use for Practitioners, teachers and Students. Wiley; 2006.
- 77. Brännmark J. Moral Disunitarianism. The Philosophical Quarterly. 2015; 66(264): 481-499. doi: 10.1093/pq/pqv114
- 78. Koehler JJ, Gershoff AD. Betrayal aversion is reasonable. Behavioral and Brain Sciences. 2005; 28(4): 556-557. doi: 10.1017/s0140525x05370099
- 79. Laroche M, Kim C, Matsui T. Which decision heuristics are used in consideration set formation? Journal of Consumer Marketing. 2003; 20(3): 192-209. doi: 10.1108/07363760310472236
- 80. Tversky A, Kahneman D. Availability: a heuristic for judging frequency and probability. Cognitive Psychology. 1973; 5(2): 207-232. doi: 10.1016/0010-0285(73)90033-9
- 81. Crowder M. Public procurement: the role of cognitive heuristics. Public Money & Management. 2015; 35(2):

127-134. doi: 10.1080/09540962.2015.1007707