Chapter 3: Emotion in Ethical Decisions: Compassion, Guilt, Embarrassment and Anger

Abstract: One of the ways in which our 'intuitions' influence our decision making is through emotions. Research in both biological and social sciences has highlighted that emotions play a major role in shaping our thinking process and affecting our decisions. In ethical decision making, there has been some research on emotions which arise with respect to feelings of justice/fairness, harm, responsibility, social belonging, and professional competence of engineers and scientists. These 'moral emotions' include Compassion, Guilt and Anger.

The specifics of life sciences engineering – working with vulnerable populations or animals for example – may give rise to empathetic emotions such as distress-at-another's-distress and compassion, as well as to shame or guilt. Emotions like these can make people more aware of ethical risks and can motivate ethical actions. But they can also give rise to biases or imprudent judgements. Each emotion will be explored to identify contexts in which it might arise, how it influences thinking, information which it may convey, and appropriate strategies for using or regulating the emotion in ethical decision making.

Case Vignette: Observational Study

Sam is working on a study to test the effectiveness of a diagnostic tool designed to predict premature delivery during pregnancy. The test is self-administered by pregnant women and detects a molecule which is believed to be associated with premature delivery. Because the goal is to assess the effectiveness of the tool in predicting premature delivery, the women in the study are not told whether or not the molecule in question is present in their sample, as this knowledge may affect their subsequent behaviour and hence impact on the validity of the test (i.e. this is an observational study, not an intervention study).

Sam is also interviewing some of the women who use the test to get an understanding of their experience with the self-administration of the test. When talking to one woman, Marine, Sam can see that Marine is extremely anxious and somewhat distressed about the possibility of premature delivery. Sam knows that Marine's test is negative for the molecule in question and that Marine has no particular reason to be anxious.

Questions

1. What emotions do you imagine Sam feels towards Marine in this case?
2. What kinds of actions might Sam be considering with respect to Marine in this case?
3. Try to identify the range of people directly or indirectly involved in this study: (go beyond the people with whom Sam and Marine may have direct contact). What might be the perspective of each of these people about Marie's anxiety and Sam's feelings?
4. For each of the different people involved, what emotions might they experience in this situation?
5. Who needs care in this situation (there can be more than one)?
6. Are there particular competences that life science engineers bring to a situation like this?
7. How could the company doing the testing organise the study to ensure that all those who need care in this situation got it?

Introduction

In the previous chapter, we looked at the way in which intuitions can impact ethical decision-making. I described a personal experience of the bystander effect, which took place at Atocha railway station in Madrid. I explained how I felt a lack of competence (I didn't speak Spanish, I have no medical training, I didn't know the telephone number for an ambulance …), and how this perception of my own (lack of) competence may contribute to slowing a pro-social response from me. What I didn't say in the previous chapter, but what may have been evident to you, is that, standing there in front of so many other people and feeling incompetent, I felt acute embarrassment. And this contributed to my hesitancy to act in a pro-social way.

Historically, ethical thinking was seen as something that required putting aside emotion in order to think 'rationally'. Over the last thirty years, however, researchers' understanding of

emotion and its relationship with good judgement has developed enormously. This has included researchers' understanding of the role of emotion in ethical decision making.

What is 'emotion' and how is it part of decision making ?

Traditionally, emotion was often perceived as being a problem to be overcome in decision making. This view of emotion was part of a wider perception of emotion as problematic: emotion is often seen by the general public as distinct from – and often opposed to – rational thinking. When a person is visibly angry (with a flushed face, a scowl around their mouth, a raised voice, a tense posture), for example, they may well say or do things that they would not do in a calmer emotional state. Similarly, a person who is very happy may talk more and say things that they may not say in other circumstances. In the 'traditional' view of emotions, these kinds of examples provide a prototypical understanding of the term 'emotion', and so then it is taken for granted that "emotion disrupts reason, and therefore, if persons are to remain reasonable, that the influence of emotion must be removed from them" (Barbalet, 2001: 34). Although this is how emotion is still commonly viewed in popular culture, most emotion researchers today would see this as a limited and somewhat old-fashioned definition of emotion.

In his paper entitled "What are emotions?", Scherer (2005) identifies a number of features that distinguish emotions: they are relatively short-term episodes, that occur in the context of a specific event, they involve some appraisal of how that event is relevant to the person's goals, they rapidly prepare the person's body and thinking to respond to the situation through coordination of a range of different sub-systems (including hormonal, blood flow, attention, motivation), and they give rise to tendencies to act and think in particular ways (Scherer, 2005). This view of emotion focuses primarily on biological and psychological processes and

is regarded as insufficiently interdisciplinary by those who focus more on how social contexts, interactions, and internalised social norms contribute to emotion. A more general definition is that given by Schutz et al. (2006: 344), who define emotions as "socially constructed, personally enacted ways of being that emerge from conscious and/or unconscious judgments regarding perceived successes at attaining goals or maintaining standards or beliefs during transactions as part of social-historical contexts". This definition emphasises that the same event may give rise to different emotions across different cultures, depending on a person's social identity and social roles.

Part of the shift in understanding emotions is that rather than seeing emotion as only disruptive, emotion is now also seen as often being adaptive – that is, it helps us to navigate the world effectively. This implies that, instead of only being seen as disturbing thinking, emotions are now generally seen as facilitating particular types of thinking. Hence, if a person wants to be creative and generate a lot of ideas, feeling happy is likely to be beneficial (Isen, 2008). Similarly, if a person wants to check for errors in a report, being in a slightly negative mood may well be more beneficial (Brand, Verspui and Oving, 1997; Palafi & Salovey, 1993). This realisation changes the question about emotion somewhat: instead of asking if emotion disrupts thinking, researchers now tend to ask what kind of thinking is emotion facilitating, and whether that kind of thinking is appropriate, given the context.

More contemporary views of emotion are also different from the traditional view of emotion in another way: while emotion was historically seen as distinct from and separate to thinking, it is now generally recognised by researchers that emotion and cognition are, in fact, far more deeply intertwined than previously thought. The way we think about things impacts on the emotions we experience: if we appraise something as a threat we feel afraid, but if we see the

same thing as a challenge we may feel excited. The emotion we experience also impacts on what we notice and pay attention to, and how we evaluate it: when we are anxious, we perceive threats more readily than when we are happy and are thus not attuned to threats. Lerner et al. (2015) identify that emotions play a role in decision making (including ethical decision making) in a number of different ways:

- **Emotions play a role in selecting what goal to focus on**. For example, the emotion of anger has been found to be associated with a goal of 'changing the situation' (Frijda et al., 1989), while anxiety is more associated with a goal of 'reducing uncertainty in a situation' (Raghunathan & Pham, 1999). Compassion is associated with prioritising the perceived needs of the person that we feel compassion towards, over the needs of other people or entities. In the vignette which began this chapter, it is possible that compassion for Marine may lead Sam to focus on Marine's needs rather than on other considerations (Batson et al., 1995).
- **Emotions play a role in determining what people think about**. For example, anger is associated with a tendency to see events as being the fault of someone and therefore controllable, while fear is associated with a tendency to see events as uncontrollable: therefore, fearful people tend to perceive greater risk while angry people, on average, perceive less risk (Lerner & Keltner 2000).
- **Emotion plays a role in determining how deeply people think about a decision**. Some emotions, for example, are associated with a belief that one understands the situation and can predict what will happen (appraisals of 'certainty'). These include emotions such as happiness, anger and disgust. Emotions associated with 'uncertainty' appraisals include hope, surprise, fear and worry. There is evidence that emotions linked to certainty are associated with greater use of stereotypes and greater susceptibility to heuristic thinking than those linked to uncertainty (Tiedens and

> Linton, 2001). On the other hand, empathetic perspective-taking has been found to reduce the impact of social stereotypes (Galinsky and Moskowitz, 2000).

Summarising the growing body of research on decision making., Lerner et al. conclude "Put succinctly, emotion and decision making go hand in hand" (2015: 801). Hence, rather than aiming for 'unemotional' thinking (as was commonly assumed by old-fashioned views of emotion), it makes more sense to look at recognising how emotion is implicit in decision making and how that can be used and regulated to ensure optimal outcomes.

Indeed, we can probably go a bit further. According to a study published in *Nature Scientific Reports* in 2016, individuals with blunted emotional responses, who feel less empathy and guilt, have been identified as being at increased risk of engaging in antisocial or immoral actions. It is notable that this is not accounted for by any difference in ability to engage in 'rational' moral judgement (i.e. they are as capable as anyone else at judging whether an action is moral or immoral):

> Atypical moral behaviour in these individuals seems to stem not from an inability to compute moral judgments, but rather from a disruption of the affective and motivational components of moral processing that may be important for adjusting one's behaviour so as not to harm others… [they] *know* what is wrong, but do not *feel* it to be wrong; and therefore fail to inhibit actions that may harm others. (Seara-Cardoso et al., 2016).

This actually suggests that emotion is part of the moral decision-making process, and is likely important in ensuring moral outcomes.

Emotion and good judgement of risk

For life sciences engineers, 'risk' is a key idea in ethics. 'Risk' can be simply defined as a combination of (i) the potential damage caused by a negative outcome and (ii) the likelihood

of that negative outcome. In the work of engineers, this is often treated as a quantitative problem (for example, through the use of risk matrices, which assess both potential damage and likelihood, multiply the two and prioritise risk management on that basis).

It is probably evident that 'risk' is associated with emotions such as anxiety or fear. One of the ways researchers on emotion think about emotions is as a source of information: recognising emotions can help us to identify risks which we have (perhaps intuitively) recognised but not yet fully brought into our thinking. The philosopher Sabine Roeser (2012a; 2012b) for example has argued that emotions are crucial to ensure people develop a full understanding of the nature of risk; "rather than being biases that threaten objectivity and rationality in thinking about acceptable risks, emotions contribute to a correct understanding of the moral acceptability of a hazard" (2012a: 107). Roeser argues that this goes beyond the emotion of fear: while 'fear' in ourselves and other can help us identify whether or not a risk is perceived to exist, other emotions such as sympathy, empathy, compassion, enthusiasm, and indignation are all seen as playing a role in helping engineers to identify whether risk is fairly distributed (i.e., are some of the people potentially affected bearing a greater risk than others), and whether the rights and perspectives of the public are being taken seriously (i.e. are people being subjected to risks without their consent or approval) (Roeser and Steinert, 2024: 175). Altruistic emotions", she writes, "can help us care about the needs and rights of people who are far away, even if it means that we have to make personal sacrifices" (2012b: 1036).

This is not to suggest that engineers should be making decisions only on the basis of their emotions. The role of fear in risk decisions, for example, was one of the intuitions studied by Daniel Kahneman (introduced in chapter 2). He notes that when people experience fear, their tendency to accurately assess the likelihood of a low-probability event is reduced. Hence,

events which tend not to happen very often, but which are emotionally resonant (like, say terrorist attacks) tend to be over-estimated in terms of risk, while events which are more mundane and so less emotionally resonant (like traffic accidents or accidents at home) tend to be underestimated.

Rather, it means that emotions should be considered as one source of information as part of an ethical deliberation process (how this might be done is discussed in chapter 5).

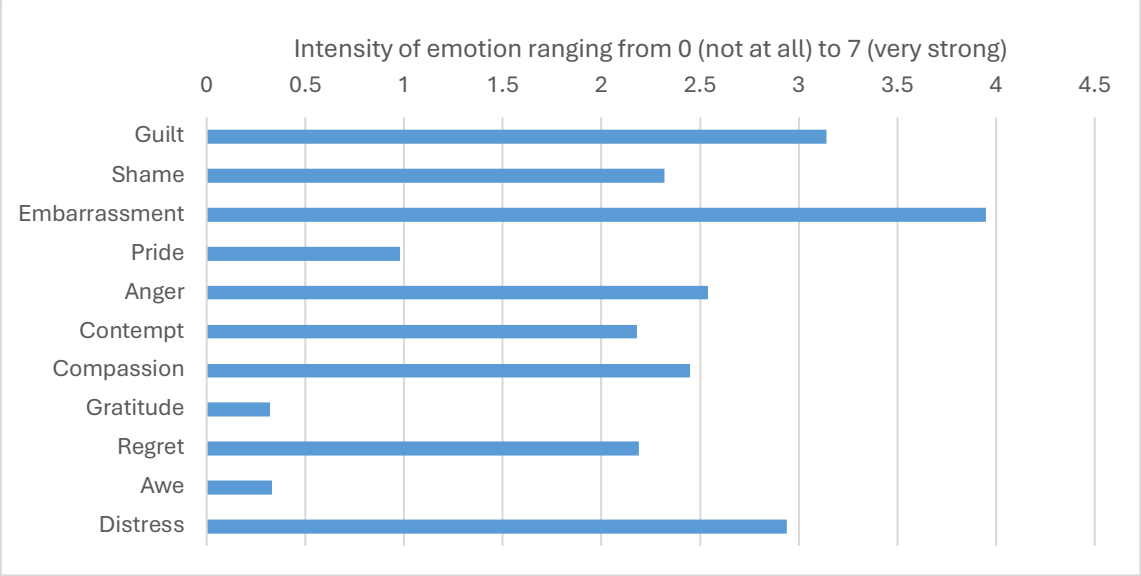
Moral emotions

The emotions identified by Roeser – sympathy, empathy, compassion, enthusiasm, and indignation/anger – are sometimes referred to as moral emotions, because they can arise when a person is addressing a question which has moral or ethical dimensions. Social Psychologist Jonathan Haidt has identified a range of emotions that impact moral behaviour, including guilt, compassion, shame, anger and disgust (Haidt 2003: 854).

It is important to note that it is the focus of the emotion which makes it a moral emotion, not the emotion itself. For example, anger as a moral emotion (pro-social anger) would arise in a situation in which I perceive something that is unfair to someone else, and I am motivated by that anger to do something to make that person's situation better. By the same definition, anger motivated by a perception that I have personally been treated unfairly (egotistical anger) would not be a moral emotion, since in this case I am the 'beneficiary' of the anger. It is not the emotion itself (anger) that is moral, but rather it is the presence of the anger in response to a particular type of event (i.e. the focus of the emotion) that makes it a moral emotion.

With my colleague Nihat Kotluk, we have looked at the prevalence of different moral emotions in relation to engineering ethics questions. We did this by providing students with six, one-paragraph long stories (vignettes) in which an engineer or scientist is faced with a question which involves some clash of values. We then asked the students the extent to which the engineer/ scientist in that situation would experience a range of different possible moral emotions. The emotions we asked about were Guilt, Shame, Embarrassment, Pride, Anger, Contempt, Compassion, Gratitude, Regret, Awe, and Distress and were scored on a scale from 0 ('not at all') to 7 ('very strong') (Kotluk and Tormey, 2024). Participants were given the vignettes in a number of different formats designed to elicit different emotional responses, but here I present only the cases which were described in the literature as 'emotionally neutral'.

Rating of intensity of moral emotions in 'emotionally neutral' engineering and science ethics dilemmas (from Kotluk and Tormey, 2024)



Two things emerged from this study. First, the cases were not 'emotionally neutral': participants identified that the engineer/ scientist at the centre of these ethics dilemmas would feel a range of different emotions. This means that, even if emotions are not acknowledged or

made explicit in cases, they are nonetheless there and may well be influencing peoples' decisions. Ignoring these emotions will not make them go away: rather, being aware of them and having a way of processing them seems like a more sensible strategy. Second, some emotions (embarrassment, guilt, anger, compassion) were identified with greater intensity than others. Since these emotions are more prominent in engineering ethics cases, it is useful to look at them more closely.

In what follows, I describe events and responses that are associated with specific emotions. One could read this as saying that this emotion is always linked to this kind of event or response. But, as I have noted above, emotions are actually quite social in that a person from a different social group (gender, culture, social status etc.) may actually feel a different emotion in the same setting. A key idea here is *emotional schema*. Schema are understood as being networks of ideas that we use to rapidly and intuitively evaluate situations. Schemas direct what we pay attention to in a situation and how we are disposed to respond. While everyone will have their own schema which results from their own personal history, and while those who have common features in their personal history (shared culture, gender, social status) will often have more shared features in their emotional schema, we can also describe some more general features of these schema. That is what the following paragraphs will do.

Guilt is a self-conscious emotion that is usually linked to the perception that the person has done some harm to others in their community (Haidt, 2003). The 'community' dimension of guilt is identified by researchers as important: while people can feel guilt at having harmed a stranger, the sense of guilt is more intense and more common when the harm is caused to someone with whom they have a meaningful relationship. Guilt and shame are often seen as being similar emotions. However, while guilt tends to focus on the need to fix something for

someone I have harmed, shame tends to focus more on me having done something that calls into question my view of myself (i.e., my core sense of my own identity). The action tendency associated with guilt is to make amends: guilt motivates people to apologize, to help the person hurt and to make up for the harm caused. Shame, on the other hand, tends to dispose people to withdraw from contact with others (Haidt, 2003). There is some evidence that shame is associated with a pattern of returning to negative thoughts and feelings repeatedly in a way that intrudes on normal life (called rumination), while guilt appears less linked to such rumination (Orth, Berking and Burkhardt, 2006). Guilt is therefore typically seen as a very pro-social emotion.

In the engineering ethics cases Nihat and I studied, guilt was the second most prominent emotion (after embarrassment). As we have noted above (and as is explored in the box directly below), there is evidence that those who feel less guilt show a reduced tendency to engage in pro-social behaviours even when they are perfectly capable of moral reasoning. Hence, even if guilt feels negative, its social impact is often positive.

Neurological Research on Guilt and Moral behaviour: Anticipation of guilt for everyday moral transgressions

The following is an abstract of an article that appeared in *Nature Scientific Reports* in 2016.

"Psychopathy is a personality disorder characterised by atypical moral behaviour likely rooted in atypical affective/motivational processing, as opposed to an inability to judge the wrongness of an action. Guilt is a moral emotion believed to play a crucial role in adherence to moral and social norms, but the mechanisms by which guilt (or lack thereof) may influence behaviour in individuals with high levels of psychopathic traits are unclear. We measured neural responses during the anticipation of guilt about committing potential everyday moral transgressions, and tested the extent to which these varied with psychopathic traits. We found a significant interaction between the degree to which anticipated guilt was modulated in the anterior insula and interpersonal psychopathic traits: anterior insula modulation of anticipated guilt was weaker in individuals with higher levels of these traits. Data from a second sample confirmed that this pattern of findings was specific to the modulation of anticipated guilt and not related to the perceived wrongness of the transgression. These results suggest a central

role for the anterior insula in coding the anticipation of guilt regarding potential moral transgressions and advance our understanding of the neurocognitive mechanisms that may underlie propensity to antisocial behaviour".

The full paper can be found here: https://doi.org/10.1038/srep36273

Seara-Cardoso, A., Sebastian, C. L., McCrory, E., Foulkes, L., Buon, M., Roiser, J. P., & Viding, E. (2016). Anticipation of guilt for everyday moral transgressions: The role of the anterior insula and the influence of interpersonal psychopathic traits. Scientific reports, 6(1), 36273.

The term *empathy* is often used in relation to emotion (and has appeared a number of times in this chapter). Empathy is a somewhat difficult term, since different writers often use it to mean different things, without necessarily making their own use of the term explicit (Batson, 2009). Empathy as a general concept refers to different dimensions of how we respond to emotionally resonant situations of other people. This can include understanding their situation and how they are thinking (**cognitive empathy**), mirroring or matching a neural response or emotion of another (**mirroring empathy**), and experiencing the emotion of distress which is the result of seeing harm to another (**emotional empathy**). Of course, in everyday life, these different components of empathy can happen at the same time and can be associated with each other. In the list of emotions that Nihat and I provided to the students in our study, two were typically thought of as empathy emotions: distress and compassion.

Compassion is typically triggered by an awareness of suffering in others. Nussbaum (2013) identifies that compassion is typically felt when another person or entity (i) that we can relate to, (ii) is subject to a serious negative experience, which (iii) we judge the person does not deserve. Our ability to relate to the person in question is a predictor for compassion: compassion is more likely to happen when we have a sense that the same undeserved negative experience could happen to us. Terms like pity or sympathy are used as synonyms for compassion. Compassion is closely related to feeling distress-at-another's-distress.

Empathetic emotions like compassion and distress-at another's-distress have long been recognised as important aspects of pro-social action (Hoffmann, 2008). The emotions of empathy – compassion and distress-at-another's-distress – are associated with a desire to give care (we will return to discussing care in chapter 5).

However, compassion is not all positive from a moral perspective. Since compassion is linked to our ability to relate to other people, there is a risk that people feel most compassion for those most like them (in terms of age, ethnicity, nationality, socio-economic status etc.). Compassion may therefore lead people to prioritise the needs of 'people like them'. There is also evidence that empathetic compassion may lead to prioritising the need of an individual over the broader social good (this is one of the issues raised by Marine's case with which we started this chapter). For example, when asked who to select for medical treatment from a list of anonymized people, research participants will select according to general criteria of need. But if they are provided with additional information about one of the candidates which causes them to empathise with that person, they will often prioritise this person over other (more needy) candidates. Thus, compassion can bias judgements in a way that is not conducive to the wider social good.

A further risk with empathetic emotions is what has been termed *empathic overarousal* (Hoffman, 2008). This happens when a person's distress-at-another's-distress becomes so acute that the person shifts their attention away from the person suffering and to their own distress. Hoffman, for example, describes that nursing students new to hospital wards were so distressed by terminally ill patients that they avoided interaction with them. Empathic overarousal is not inevitable. It appears to be linked to a feeling of helplessness: when the nursing students realised they could improve patients' quality of life, their behaviour changed.

Similarly, those who can regulate their own emotional process can keep empathic overarousal in check and can retain a focus on the victim rather than on their own distress.

Hence, while compassion and wider empathic emotions are clearly important for pro-social action, it will be important to ensure they are understood as part of a wider process of deliberation.

Case Vignette: Observational Study (continued)

Go back and read again the case vignette of Sam and Marine which opened this chapter.

Questions

1. Looking at the three triggers for compassion as identified by Nusbaum. What are the features of Marine's case that may give rise to Sam feeling compassion?
2. What risk is there that compassion in this case may lead Sam to prioritise the welfare of an individual over the broader social good?

Anger may seem odd to include in a list of moral emotions, as anger is typically considered a very negative emotion. Indeed, social psychologist Jonathan Haidt (2003: 856) has written that anger is typically thought of as an immoral emotion: "like a dark primal urge that must be suppressed by cultural and educational force". He notes that moral anger is typically elicited in response to perceptions of unfair treatment or a lack of due respect for oneself or others. Nussbaum (2016) identifies that wrongful 'down-ranking' – that is, treating someone with less respect than they deserve – is one factor that contributes to anger. She also notes that a key feature of anger is that it is not only focused on righting the perceived wrong but also on

retribution – that is, a desire to see the person or people responsible for the injustice punished. I noted above that anger is – alongside happiness and disgust – associated with appraisal of 'certainty', that is, a belief that a person understands the situation and can make good predictions about future events (Lerner et al., 2015). Linked to this, anger is also associated with a tendency towards what might be called optimism; that is, angry people will often assume that their actions to exact retribution will work out well.

Anger can be a powerful emotion in motivating pro-social action. For example, Samantha Stanley and colleagues have found eco-anger to be associated with pro-environmental personal behavior (Stanley et al. 2021), while Montada and Schneider (1989) found that moral outrage was associated with readiness to take prosocial actions such as spending money to support a disadvantaged group, or participating in a demonstration. Similarly, Vitaglione and Barnett (2003) found that what they called empathetic anger (that is, anger at unfairness to someone else) was predictive of wanting to help that person (as well as predictive of wanting to punish those responsible).

In the analysis of anger in ethics cases carried out by Nihat and I, we found that anger in engineering ethics cases was seen as linked to several features of the case, including: (i) when the engineer was (unfairly) blamed for problems in the project which were outside their control, (ii) when the engineer's expertise and ability to contribute positively was ignored, (iii) when the engineer was belittled (or, in Nussbaum's terms, 'down-ranked') by those in positions of power such as managers or senior colleagues, (iv) the potential for harm to people who do not deserve it (such as users of a product or residents affected by pollution), and (v) a prioritising by others of profit over high professional standards. So, while anger was

associated with unjust harm to innocent people, perceptions of down-ranking of the engineer and their status were central to the emotion.

Political philosophers in recent years have been divided on the role of anger in pro-social action. Nussbaum (2015; 2016), for example, has focused on the risk that anger motivates an inordinate focus on punishment rather than on the construction of a better and more just situation. She concludes that, while anger can have a role in motivating people to act, it is not a very useful moral emotion and should be regulated. Others make a distinction between negative anger and more prosocial expressions (which they sometimes label using other terms such as moral indignation or moral outrage). Myisha Cherry (2020), for example, has argued for a larger role for anger in targeting beliefs, policies, behaviors and social systems rather than at individuals and, she argues, therefore, that it need not be retributive. Whether or not anger is, by definition, more focused on retribution than on building something positive remains debated. However, it is clear that while anger has prosocial components, it needs to be treated carefully in moral decision making.

Case history: The ethics of listening to angry people

Kensington and Chelsea Tennant Management Organisation (KC TMO) was, until 2018, the largest landlord organisation in England, managing 10,000 properties in London. The KC TMO did not always have warm or positive relationships with all its tenants. In one location, Grenfell Tower in the Notting Hill area of London, some residents were particularly scathing of their landlord, highlighting, among other things, fire safety risks in the Tower. The Grenfell Action Group wrote a blog post in October 2016 saying:

…only a catastrophic event will expose the ineptitude and incompetence of our landlord, the KCTMO, and bring an end to the dangerous living conditions and neglect of health and safety legislation that they inflict upon their tenants and leaseholders. We believe that the KCTMO are an evil, unprincipled, mini-mafia who have no business to be charged with the

responsibility of looking after the every day management of large scale social housing estates and that their sordid collusion with the RBKC [Royal Borough of Kensington and Chelsea] Council is a recipe for a future major disaster (*Grenfell Action Group (20 November 2016). "KCTMO – Playing with fire!". wordpress.com).*

One resident in particular, Edward Daffarn, was seen by the KC TMO as particularly vocal and rude. A later inquiry into what happened at Grenfell Tower found him to be "an intelligent, articulate and motivated individual.. [whose] language and approach in dealing with the TMO caused resentment among its staff… between 2011 and 2017 the relations between the TMO and many of the residents of the tower were increasingly characterised by distrust, dislike, personal antagonism and anger" (Grenfell Tower Inquiry Phase 2 Report, Volume 3, para 33.37 and 33.67).

At about 1am on the morning of 14 June 2017, an electrical fault in a fridge-freezer in the apartment of Behailu Kebede, who lived on the fourth floor of Grenfell Tower, set off the smoke alarm. He immediately notified his neighbours and called the fire brigade. Despite this, due to inappropriate building materials used in the recently renovated tower, the fire spread quickly up the exterior of the building. And, due to inadequate fire safety management, residents were told to stay in their apartments rather than to evacuate. This combination of factors trapped residents within the burning tower.

In the fire, 72 people died, and 70 more were injured. According to submissions to the inquiry, 85% of those who died were Black, Asian or from other minority ethnic groups. The inquiry found that all 72 deaths were avoidable.

Questions

1. What emotions do you experience when reading about the events at Grenfell Tower?

2. Anger is linked to a perception of injustice, lack of respect, identification of a perpetrator, and often to a desire for retribution. Can you see any of these features of anger in the description of the relationship between the KC TMO and the Grenfell Tower residents in the period up to 2017?
3. The Grenfell Tower Inquiry concluded "Mr. Daffarn perhaps should have stood back and questioned whether his preferred methods were the only, or even most effective, way in which the voice of the community could be heard. A more conciliatory approach on his behalf might have been reciprocated" (Vol 3., Para 33.49). Does it seem fair to you to place some of the responsibility for the breakdown in communication with a tenant living in the tower?
4. Anger is also associated with a kind of optimism about a positive outcome of action. How might this have impacted on Edward Daffarn's means of communication?
5. The inquiry also concluded that, because the TMO was the landlord, tenants depended upon it for a safe and decent home and that this created an unequal power relationship. This unequal relationship placed an onus on the TMO "to ensure that, whatever the difficulties, the residents were treated with understanding and respect. We regret to say the TMO failed to recognise that need, and therefore failed to take the steps necessary to ensure that it was met" (Vol 3, para 33.69).
6. What kinds of strategies might a body which has some power over others put in place to ensure their voice was heard, even when that voice is expressed in angry or disagreeable terms?

Let's pivot now to think about biotechnology.

7. Can you think of any harm to the public caused by biotech? What emotions do you experience when considering this harm?

8. What responsibilities might biotech companies have to put strategies in place to ensure the voices of those potentially affected by their actions are heard and taken into account (even if they are angry or disagreeable)?

Finally, *embarrassment*, in contrast to anger, is a self-conscious emotion, linked to the perception that one has made some kind of (minor) misstep in interaction with others (Goffman, 1956; Tangney et al. 2007). Examples include tripping in public or having food on one's face when talking to someone else – they lead to a temporary feeling of awkwardness and self-consciousness (Mayer et al., 2020). Embarrassment is, therefore, linked to some evaluation of a lack of (social) competence. While shame is seen as more serious and affecting a person's deep sense of themselves, embarrassment is seen as less serious and linked to something more temporary. Although embarrassment is perhaps experienced as being less important than shame or strong anger, embarrassment is often theorized as making a major contribution to pro-social behavior: it is often the desire to avoid embarrassment that ensures that people interact with each other in friendly and positive ways. The action orientation linked to embarrassment is withdrawal: when people feel embarrassed in a situation, they often take a step back and withdraw from public gaze insofar as is possible. For some people, an important feature in embarrassment is that people try to avoid embarrassment, not only for themselves, but also for other people ('second-hand embarrassment').

In the 'emotionally neutral' engineering ethics cases that Nihat and I studied with engineering students, embarrassment was the most frequently cited emotion. The fact that embarrassment is so prominent as an emotion in these ethics cases seems to suggest that facing ethical dilemmas is perhaps not seen as 'normal' in engineering work, but is rather seen as reflecting

a lack of competence. In explaining their reasons for seeing embarrassment as so prominent in those cases students identified that the potential visibility of the case study protagonist's dilemma to other people was part of the reason for the feeling of embarrassment. If engineers respond to the potential for embarrassment by avoiding ethics questions, this could be a real problem.

If a feeling of embarrassment in facing ethics cases is due to a sense that it makes people look like they lack competence, then embarrassment may be reduced if, instead, ethics cases are explored in terms of how they allow people to demonstrate competence. So it would make sense, as part of the analysis of ethics cases, to explicitly identify the areas in which a person has competence (you will have seen that in a number of cases so far, questions have asked how the engineers or scientists' technical competence could be part of providing a solution).

Conclusion

In chapter 2, we saw that intuitions play an important role in how people make ethical decisions. One mechanism through which these intuitions work is emotion. Like other aspects of intuitive practices, emotions allow us to rapidly respond to situations in our environment. Indeed, more than that, emotions play an important role in coordinating a 'whole body' response which directs our attention, facilitates particular types of thinking and disposes us to act in particular ways. Emotions are important and beneficial for pro-social action. But, like other aspects of intuition, they are subject to predictable problems.

In everyday speech, people often distinguish between good emotions and bad emotions – with bad emotions generally understood as those which feel negative (psychologists call this negative *valence*). But moral emotions are not so easily dividable into good and bad – any

given emotion may well be useful and appropriate in some situations, but less useful and inappropriate in others. Thus, rather than seeking to avoid some emotions entirely, or to remove all emotion from decision making, the challenge is to experience emotion in ways which are useful. Some two thousand years ago Aristotle wrote: "any one can get angry- that is easy- …; but to do this to the right person, to the right extent, at the right time, with the right motive, and in the right way, that is not for everyone, nor is it easy" (Nicomachean Ethics, Book 2, section 9). The challenge of having the right emotion, with the right motive, directed at the right person and in the right way is not straightforward. Strategies for managing this will be addressed in chapter 5.

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Outside class work

Reading: Read the week's notes.

Log on to moodle and answer the questions.

Moodle questions

Val, an intern in a biotech company was proposed an article about Life Cycle Analysis of plastics used in biological products (Budzinski, K., Constable, D., D'Aquila, D., Smith, P., Madabhushi, S. R., Whiting, A., ... & Collins, M. (2022). Streamlined life cycle assessment of single use technologies in biopharmaceutical manufacture. *New biotechnology*, *68*, 28-36.). Having read the article, they believe the company can reduce its waste. Val asks if they can put the item for discussion at the weekly meeting.

For each of the following contexts, identify

(i) which emotion Val is likely to feel

(ii) what factors in the context are linked to that emotion

(iii) what kinds of thoughts/ actions this might predispose Val to.

Context 1: Val's sister has is pregnant and Val has recently read a review of evidence suggesting microplastics may be detrimental to a developing foetus during pregnancy. (Sharma, R. K., Kumari, U., & Kumar, S. (2024). Impact of Microplastics on Pregnancy and Fetal Development: A Systematic Review. *Cureus*, *16*(5), e60712 DOI: 10.7759/cureus.60712)

Context 2: Val read the article and is convinced the company can do something. But Val is aware that there is a lot they don't know about the company's supply chains and waste management, and that this may become evident to others at the meeting.

Context 3: Since the article included a focus on the carbon cost of electricity in the manufacturing process, Val has been thinking about their own carbon footprint, and in particular the flights they took to the Peru the previous year to visit Machu Pichu.

Context 4: When Val asks to put the item on the agenda, they are told that everyone is too busy to spend time on an inconsequential issue raised by an intern.

Context 5: Val previously volunteered in a marine cleanup exercise and saw examples of wildlife suffering and dying due to plastic ingestion or entanglement, sometimes with company logos still visible on the plastic. (see Garcês, A., & Pires, I. (2024). The Detrimental Impacts of Plastic Pollution on Wildlife. *Research in Ecology*, 42-46.)