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Moral Distress and Moral Injury in the Context of Autism

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**Moral Distress and Moral Injury in the Context of Autism**

**Abstract**

**Purpose** - Clinically, it is often observed that autistic people may have a heightened need for rules and may find rule violations very distressing. It is clinically plausible that autistic individuals may be prone to hyper-morality and greater reactivity and adverse experiences arising from moral threats and violations. Such adverse experiences may in some instances lead to moral distress or in more extreme cases moral injury. Thus it is important to examine how moral distress can operate in the context of autism.

**Design** - We explore clinical hypotheses on how moral distress can intersect with different features of autism, by drawing on clinical and research knowledge of autism spectrum disorder and how it contextualises experiences of morality.

**Findings** - Based on a review of the literature and theory, we hypothesise that autistic individuals may be more prone to moral distress where they have a 1) lower threshold for moral distress, 2) and because of this lower threshold have more frequent exposure to moral distress, 3) experience more immediate and intense subjective reactions to moral transgressions, for 4) more protracted periods. Also, they may find it 5) more difficult to override and neutralise moral outrage. As a result, they may be more susceptible to mental health sequelae and impaired social and occupational functioning. Practical recommendations are made for clinicians supporting people with autism with a propensity for moral distress or moral injury, to improve their quality of life.

**Originality** - Understanding moral distress in an autistic context is important for detecting and treating the adverse impacts of moral distress on autistic individuals. Importantly, erroneous preconceptions about moral reasoning in autism need to be mitigated, in order to fully understand the moral experiences and harness the many strengths of people with autism.

**Keywords:** Autism; Moral; Distress; Injury; Transgressions; Rumination.

## Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by differences in social communication and social interaction and the presence of stereotyped or repetitive interests or behaviour (American Psychiatric Association [APA], 2013). Autism has very broad diagnostic criteria and different autistic individuals show markedly different characteristics, including the presence or absence of accompanying intellectual disability. This paper will focus on people with autism without an intellectual disability and seek to generate clinical hypotheses about how moral distress can unfold in the autism context and in some cases this may lead to moral injury.

### ***What are morals?***

Morals are defined as the intentions, decisions and actions that are distinguished as right and wrong (Long and Sedley, 1987). Determining what is 'right' or 'wrong' may be considered from differing perspectives. Moral Universalism refers to the idea that there is an absolute moral truth and that all moral rules should be applied to all people and situations (Ten Have and Gordijn, 2014). Moral Relativism on the other hand considers there are no universally agreed standards of right and wrong and that morals are subjectively influenced by factors such as cultural norms, social factors and customs etc. (Aarsbergen, 2006). For the purposes of this paper moral relativism will be adopted as moral distress and moral injury relate to contexts in which more abstract moral constructs are considered.

Moral rules are considered to be the rules that guide people on how to behave in accordance with moral values (Frederick, 2009). These may comprise of common sense moral rules and rules of etiquette. Furthermore, it is argued that one set of moral rules should not be at the expense of others. That is, they should not be illogically inconsistent or incompatible. However, moral rules may be ambiguous. For example, Frederick (2009) noted that if we suppose that someone promised to have lunch with a friend but broke that promise because they gave a person mouth to mouth resuscitation causing them to miss their train. In this instance the moral rule of preventing harm supersedes the moral rule of keeping a promise. Thus, it has been suggested that common sense moral decisions that conflict are determined by different foundations of importance to the individual and are culturally dependant

(Aarsbergen-Ligtvoet, 2006). Individual moral foundations (Haidt, 2012) have been proposed to comprise of the following:

- Care/harm
- Fairness/reciprocity
- In-group/loyalty
- Authority/respect
- Purity/sanctity
- Liberty

Authors have debated what determines the ‘weighting’ of importance on moral decision making. Some have argued this is innate/intuitive (Haidt, 2001) whereby morality takes the form of intuitions, accomplished by rapid, automatic, and unconscious affective responses to aid survival. Others suggest this is a more conscious process which develops as a result of age and culture (Kohlberg, 1981). Limone and Toto (2022) noted that babies display basic altruistic behaviours from birth and that morality matures during childhood. For example, Ting *et al.* (2019) found that children have four basic socio-moral principles of fairness, avoidance of harm and respect for authority. By adolescence morality develops further through interactions with social peers, interpersonal relationships and socio-cultural factors (Limone and Toto, 2022) and by adulthood it is recognised that a range of factors shape the moral sense of human beings including natural moral sense, social relationships, life experiences and the environment (such as culture and societal norms).

It is argued that these factors may influence the weighting assigned to moral foundations during moral decision-making and accounts for conflicts between moral criteria (e.g. you need to adhere to agreed times when meeting others; you need to help save the life of someone who’s in danger), which allows an additional layer or moral rule to be generated to resolve the problem (e.g. it is okay to be late to a meeting if there is a threat to someone’s life). Therefore, Moral Foundations Theory [MFT] (Haidt and Joseph, 2004) provides a theoretical framework for the multi-dimensionality of moral decision making whereby morality is comprised of a discrete set of moral foundations. These are considered to provide some structure to abstract decision-making and additional layers through which moral decision-making can be adapted to the situation. Nevertheless, moral resolution is not always possible

or realistic and when it is not, some individuals may experience distress and difficulty reconciling with it psychologically.

### ***Moral Stress, Moral Distress & Moral Injury***

According to Litz and Kerig (2019), morally relevant life experiences exist on a continuum with moral frustration at the lower end moving through to moral distress in the middle and at the higher end of the continuum is moral injury. Furthermore, when a person is exposed to an event or situation, where they fall on this continuum is dependent on the frequency of exposure to events and the degree of psychological and social impairment caused. The degree of resulting impairment may also be moderated by a person's culture and individual differences.

At the lower end of the continuum, some degree of moral frustration may be experienced as a typical response to moral challenges whereby there is no personal self-relevance, e.g, frustration with perceived government inaction in relation to climate change (Litz and Kerig, 2019).

In the middle of the continuum are moral stressors which are deemed to be more likely to result in moral distress because they directly impact on the individual (are self-referential) and the most prominent symptoms experienced are emotions such as fear, anxiety, or sadness (Farnsworth et al, 2017) as well as loss of sleep or intrusive thoughts. It is argued that they may occur less frequently than moral challenges but have higher-stakes (or value) apportioned to them (Litz & Kerig, 2019).

Finally at the most extreme end of the continuum is moral injury which involves grave threats to personal integrity or loss of life causing a high impact to the individual. Moral injury can result in a shift in one's "view of themselves and others" and lead to feeling that "humanity, has changed fundamentally in a way that is devastating, leaves them adrift, and seems to them to be irreversible" (Yeterian *et al.*, 2019, pp9). This is also referred to as a moral injury due to a sense of betrayal through learning about morally transgressive acts by others which challenge the moral integrity not just of other individuals but also organisations and

communities (Riedel *et al.*, 2022). Therefore, the following discussion will attend to definitions of moral injury.

According to Shay (2014) moral injury is present when: there has been a betrayal of what is morally right; by someone who holds the legitimate authority; and they occur in a high-stakes situation (p183). In broader clinical practice, moral injury has been conceptualised as the psychological response to one’s own or their peers’ behaviour, as well as that of authority figures. Williamson *et al.* (2021) describe moral injury as a strong cognitive and emotional response that occurs following events that violate a person’s moral code, including acts of omission or commission, or involve betrayal by a trusted person in a high-stake situation. Historically, ‘high-stake’ situations have been considered to comprise of situations in which a loss of life may exist however the notion of moral injury has been extended from ‘high stakes’ situations which involve the loss of life in the military and health care to situations such as climate destruction (Hentritze *et al.*, 2023). In these instances it is argued that people experience a high moral injury due to feeling guilty for consuming daily necessities in the knowledge these may contribute to climate change. Thus their moral injury is a result of their own behaviour. However, they may also experience high moral injury due to others behaviours such as people in power (e.g. politics/governments/institutions) who may be perceived as failing to implement policies and changes to reduce climate change. Hence, ‘high stakes’ situations causing moral injury in this sense extend beyond situations which involve a loss of life, to more morally relative notions of what is right and wrong.

Morally injurious events may include an individual perpetuating, failing to prevent, bearing witness to, or even just learning about acts that violate and transgress their moral beliefs and expectations (Litz *et al.*, 2009). Academically speaking, both the definition of ‘high-stakes’ situations and moral injury itself have been subject to debate due to this being a relatively new field which is still being empirically explored (Cartolovni *et al.*, 2021). There is also a debate about the distinction and relationship between moral injury and moral distress. It is not within the scope of this paper to provide a thorough review of the literature debating the different definitions of moral injury and high-stake situations, nor the difference between moral injury and moral distress, as the focus of the current paper is on the clinical relevance of autism for the whole spectrum of moral distress and injury. For the purposes of the current paper, both moral distress and moral injury will be conceptualised clinically as the

psychological response to all moral transgressions, with the difference being the degree of severity and chronicity (Litz & Kerig, 2019).

### ***The Psychological Response to Moral Injury and Moral Distress***

Moral Injury has been differentiated from PTSD in the sense that it does not have to include enduring symptoms of trauma (e.g. flashbacks, nightmares, heightened startle responses and memory loss) (Bryan *et al.*, 2016) and relates to a threat to morality as opposed to a threat to life or safety. Moral injury is associated with shame, guilt, anger, and social alienation as a result of exposure to morally injurious events (Griffin *et al.*, 2019). The effects of exposure to moral injury have been found to include depression, self-depreciation (Vargas *et al.*, 2013), a lack of trust in others (Williamson *et al.*, 2021), suicidal thoughts, aggression towards others and substance misuse (Griffin *et al.*, 2019).

Factors that are considered to protect a person from developing moral injury may include individual, social and organisational factors (Griffin *et al.*, 2019). One example of an individual factor is beliefs, with research finding that beliefs that the world is fair and that the person's moral actions will influence moral outcomes (sometimes known as 'Just World Beliefs') as well as beliefs towards the self (e.g. high self-worth). Risk factors for moral injury have been argued to include: situations in which the individual feels they were unable to prevent the moral transgression; social withdrawal; self-depreciation; feeling shame and/or guilt; low perceived empowerment; low autonomy; and higher education levels (Riedel *et al.*, 2022). Other studies have also shown that people with lower scores in compassion and higher scores in criticism were more likely to experience betrayal (Zerach and Levi-Belz, 2021) and people with ineffective communication were more likely to experience moral distress [Silverman *et al.*, 2021].

In contrast to moral injury, it is argued that moral distress occurs when a person experiences conscious frustration and anger in responses to moral stress but this does not affect their self-perception and the distress on their psychological/social functioning is moderate and short term (Litz *et al.*, 2009). However, it is also argued that if moral stressors occur repeatedly then it may cause what is known as a moral residue whereby repeated exposure to morally stressful situations causes what is known as a crescendo effect (Riedel *et al.*, 2022) which can



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result in helplessness, powerlessness, shame, embarrassment, grief, misery and PTSD (Papazoglou and Chopko, 2017) as well as moral injury (Riedel *et al.*, 2022). Thus using this definition, moral injury may be caused not only by a rare occurring instance of grave threats to personal integrity but also by repeated exposures to moral distress (Riedel *et al.*, 2022). It is argued that this can lead to a loss of trust in the self, authority and systems (Shay, 2014) and cause emotional, psychological and behavioural difficulties for the individual (Riedel *et al.*, 2022).

Hence, as noted, research in the field of how to define where moral distress ends and where moral injury begins is open to empirical investigation (Litz and Kerig, 2019). For example, it is argued that certain people may experience high levels of moral distress in response to situations and struggle to cope with these due to social, environmental, and individual determinants (Riedel *et al.*, 2022). Thus, what may be experienced as moral distress by one person may be experienced as moral injury to another. Furthermore, defining what constitutes a moral injury is dependent on the severity of moral emotions and symptoms experienced by the individual and how these impact on their identity. It is for this reason that there are no clear categorical demarcations or cut off points between what constitutes the difference between moral challenges, moral distress, and moral injury (Litz and Kerig, 2019). For example, moral injury has previously been associated with life threatening incidents however it is also noted that prolonged moral distress is cumulatively intertwined with moral injury (Papazoglou and Chopko, 2017). Research on the prevalence of moral injury is, by comparison to other psychological concepts, in its infancy with a predominant focus on moral injury within military contexts. More recent research has explored this within civilian settings (Steinmetz *et al.*, 2019) in relation to an individual not being able to act in a way that is in accordance with their own morals (Riedel *et al.*, 2022).

In summary, what is clear is that morals are the rules by which people guide their life and decision-making. When these are violated or transgressed this can cause significant negative effects for the individual. It is not known why some individuals exposed to moral transgressions experience moral distress or moral injury whilst others do not, although it is widely accepted that bio-psycho-social factors are important to consider. One individual factor that may impact biological, psychological, and social experiences, is autism spectrum

disorder (hereon referred to as autism). The current paper will explore the intersection between autism and moral distress and moral injury. For the purpose of this paper, both moral injury and distress will be referred to as moral distress [MD], for brevity.

### ***Why might people with autism be at greater risk of experiencing moral distress?***

Firstly it should be noted that people with autism may have many strengths such as: superior creativity, focus, and memory; increased efficiency and personal qualities such as honesty and dedication; and the ability to offer a unique autism-specific perspective (Cope and Remington, 2022). Furthermore, the ways in which autism presents varies considerably reflecting the view that neurodiversity and neurological differences are natural variations of the human brain that should be valued and respected (Singer, 2017). However, it has been postulated that some individuals with autism may be at greater risk of experiencing moral distress (Praslova, 2022). The following section will present hypotheses grounded in clinical and academic knowledge and theories of autism, to develop an understanding of how five different dimensions of autism may interact to contextualise a heightened propensity for moral distress in some people. The interaction between the five dimensions of autism and moral distress are conceptualised in Figure 1.

Insert Figure 1

#### ***1) Need for order, rules, and facts***

As noted, Moral Foundation Theory (Haidt and Joseph, 2004) has been considered to provide a rational, deliberate, and organised mechanism to consider moral right and wrong through the application of rules and facts (Frederick, 2009). People with autism not only have a heightened need for routines, order, and predictability in their physical environment (e.g. objects or items, schedules, and places) but this need extends to other aspects of life, including people, society, existential matters, and moral order in all its aspects. As a result,

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they may function at their best level when people act in predictable ways (Happe and Frith, 2006), when society is structured and organised in a way that is predictable and when philosophically, they can find answers and explanations for unexplained or unpredictable events. However, when changes to these occur this can cause extreme distress (Oomen *et al.*, 2021).

Thus, it is argued that people, social justice, and existential matters need to operate in an orderly way, follow rules and be predictable. When they do not, intense discomfort and distress may arise. This can make daily life a frequent source of stress as people do not always act in such an orderly way nor are they highly consistent and predictable. When people in an autistic person’s private life or those in the public space break even minor rules (e.g. do not do what they are expected to, act in irrational ways, are inconsistent or are hypocritical in saying one thing and doing another), this can be experienced as an intense loss of order and generate a visceral reaction. For example in their study Oomen *et al.* (2021) found that a primary source of stress during COVID-19 for people with autism was anxiety that other people would not adhere to the rules of social distancing. Furthermore, when others do not adhere to ‘rules’ people with autism are also noted to perseverate (Hofvander *et al.*, 2009) making it difficult to mentally abandon rumination about a transgression. For example, Huang *et al.* (2012) found that drivers with autism were more rule-bound and less reckless but they may also be prone to road rage due to intense frustration arising from an inability to regulate the expected outcomes of others or the environment (Bedrossian, 2015). Furthermore research shows that people with autism tend to respond more harshly than neurotypical individuals to rule transgressions, regardless of whether the person they were interacting with harmed them intentionally or by accident (Bellesi *et al.*, 2018). Thus, where moral transgressions by others are a daily reality in all domains of life, moral distress may be a frequent experience.

Moral violations that come to torment autistic individuals can also include injustices carried out towards others (e.g. people they know or victims of crimes or war on the news) as well as those they become victim to (e.g. when treated unfairly or inconsistently by others in their life). Furthermore, the need for rules and order impacts one’s own behaviour and lifestyle. For example, if they fear that they have broken social rules or done something wrong, they may feel intense anxiety and may find themselves constantly analysing their own behaviour

after the event and spotting their 'errors' (Black et al, 2023). This can lead to self-depreciation and self-loathing as well as a heightened anticipatory fear of 'getting it wrong' and making mistakes in any aspect of their life. In extreme cases or in even the least severe cases, the person may also develop an anxiety about saying the wrong thing, violating others' expectations and being criticised. This can underpin a hypersensitivity to criticism and rejection, a state that is referred to as rejection sensitive dysphoria (RSD) in the ADHD field (Bedrossian., 2021). RSD symptoms are associated with setting high standards which are hard to meet, feelings of perceived failure when not meeting others' expectations, embarrassment, anxiety, and thoughts about self-harm. Given ADHD is thought to be present in 50-70% of people with autism (Hours *et al.*, 2022), RSD would also seem pertinent as a potential vulnerability factor for moral distress.

Thus it is proposed that this anticipatory fear of making an error (moral violation) may heighten anxiety and this may be worsened in situations characterised by uncertainty around rules. This is because people with autism may have a strict adherence to rules both moral or conventional (Shulman *et al.*, 2012) and when this is combined with an intolerance for uncertainty (IU) may result in negative reactions to uncertain events or situations (Petrolini *et al.*, (2023). Furthermore, IU has been associated generally with mental health conditions such as depression and eating disorders (Petrolini *et al.*, 2023). Thus uncertainty about social rules and anxiety about violating them, could impact wellbeing in autistic individuals and one way to understand this impact is by construing the anxiety in terms of moral distress.

In addition, this could be exacerbated by some of the noted strengths people with autism may have associated with their personality, such as being fair, authentic, reliable (Kirchner, 2016) and loyal (Attwood, 2006). Kirchner (2016) found that people with autism rated their strengths as being authenticity and fairness. When faced with others' or their own actual or feared transgressions, self-valued rules around loyalty, fairness, reliability and authenticity may be threatened. The impact on functioning, health and quality of life, should not be underestimated. For example, research exploring the experiences of people with autism who were victims of Intimate Partner Violence (where their partner transgressed the moral rules of intimate relationships) found participants described feeling anger, shame, and confusion at not realising what was happening to them at the time and that it took them longer to process this (Pearson *et al.*, 2023) and led them to struggle to trust others. This may reflect

the distress arising from psychologically critical rules of loyalty and fairness being broken by those so integral to meeting one’s heightened need for certainty.

2) *Obsessionality, rigidity and pedantry*

As well as the heightened need for rules and order, autism is associated with obsessionality, rigidity, and pedantry (Russell et al., 2005). This means that not only are rules and order needed but that rules need to be applied rigidly, at all times, to the letter and across all aspects of life, without exemptions or flexibility. Hence this feature of autism interacts with the previous feature, to widen the contexts for moral distress as well as increasing the potential frequency of this. Social fidelity and loyalty may also be standards that are rigidly applied to the self by autistic individuals (Attwood, 2006), who are prone to frequent analysis of their own behaviour and to a sensitivity of being criticised due to a need to get things right. For example, perfectionism and perseveration have been noted to cause strain and negative outcomes in the workplace for people with autism (Jones, 2023) and this may extend to both the individual’s need to act in a perfect manner and also their desire for others to be perfect. Many autistic individuals anecdotally report perfectionist, exacting standards. Oshima et al., (2015) found that people with autism scored significantly higher than neurotypical (NT) controls for the schemas ‘unrelenting standards’ (the belief that they must personally strive to meet very high internalised standards of behaviour) and ‘hyper-criticalness’ (the belief that people should be harshly punished if they do not meet one’s standards and expectations). In addition, such maladaptive schemas are associated with mental disorders such as PTSD (Oshima et al., 2015).

Hence, it is postulated that some people with autism may set themselves and others extremely high (including moral) standards, which they are preoccupied with and applying rigidly and to the letter. When they or others fall short of such standard, significant internal angst and potential external conflict may arise, and impact their social and occupational functioning. Such moral perfectionism may be borne out of neurocognitive styles associated with autism but can impact all aspects of life and sensitise to even small moral transgressions experienced in day-to-day life.

3) *Pre-occupation, circumscribed interests, and repetition*

Some people with autism may also be at a greater risk of experiencing moral distress because of pre-occupation and perseverative interests which are known features of autism. Collectively, they may create a tendency to obsessively and repetitively analyse and ruminate over even minor errors committed by others or oneself and do so more so than non-autistic populations (Gotham *et al.*, 2014). Such errors may become the object of intense pre-occupations and cognitive fixations that amount to repetitive rumination leading to maladaptive brooding (Williams *et al.*, 2021). In addition meta-cognitive models (thinking about thinking) assume that an over-reliance on worry or inflexibility in this style of responding to negative thoughts can lead to problems of emotional self-regulation (Wells, 2010). In addition, moral metacognition (thinking about thinking about morals) has been also been shown to be mediated by emotions. For example, when an individual has high moral principles but is emotionally balanced they are able to regulate their attitude and behaviour. However, individuals with high moral principles and lower emotional regulation are more likely to experience anxiety and discontent when faced with moral challenges (Negi *et al.*, 2022).

Rumination involves perseverative thoughts that revolve around a negative emotion or situation (Patel *et al.*, 2017). These can also be involuntary mental processes and can consume cognitive resources (Nolen-Hoeksema, 2000) resulting in depression, anger, and aggression. People with autism have been found to have higher rates of anger rumination (Pugliese *et al.*, 2015) as well as sadness-focussed rumination (Crane *et al.*, 2013) resulting in increased depression (Gotham *et al.*, 2014), anxiety and emotional dysregulation (Patel *et al.*, 2017).

Williams *et al.* (2021) also found that the depression symptoms in autistic adults were most strongly related to rumination about sadness and guilt (repetitively thinking about one's guilty feelings or criticizing themselves). Furthermore, Davidson *et al.* (2017) found that adults with autism traits showed greater levels of proneness to shame and externalising which is associated with blaming others, other-directed hostility, and displaced anger and aggression (Bear *et al.*, 2009; Tangney *et al.*, 2007). It is argued as a result that people with autism may have increased risk of maladjustment in relation to social relationships, interactions with co-workers, family, and friends (Davidson *et al.*, 2017) because others in their lives may find their intense and sustained focus on their errors and transgressions exhausting and upsetting and avoid them.

In addition, rumination may also render some autistic individuals to be predisposed to hyper-focussing and fixating on both minor and major moral transgressions in ways that can impede their wellbeing, social and occupational functioning. According to Ashinoff and Abu-Akel (2021) ‘Hyperfocus’ “is a phenomenon that reflects one’s complete absorption in a task, to a point where a person appears to completely ignore or ‘tune out’ everything else” (pp1). Thus it is viewed as a factor which contributes to difficulties in switching attention. Furthermore, rumination may also take the form of visual hyper-phantasia or a strong sensory/visual memory of what they have seen or experienced. This can give rise to the strong encoding of stressful events, including moral transgressions, and the replaying of these mental images in one’s mind after the event.

It is argued that some people with autism may struggle to ‘let go’ of even minor transgressions until they find a resolution or logic for it (that can restore rules and order), which can create significant stress that is sustained by repetitive thinking and hyperfocus. Moral transgressions by oneself or others may come to entail strong visual memories, that are replayed and analysed in great detail for long periods. In instances where there is a perceived personal moral failure, individuals may also present with a more obsessive type of rumination consisting of intrusive thoughts and images of moral transgressions that they fear they may commit in the future (e.g. violence). In such circumstances they may develop an obsessive-compulsive ritualistic behaviour to reduce anxiety and the compulsion to carry out the transgression (Zandt *et al.*, 2007). Intrusive thoughts about the transgression can exacerbate guilt and shame, and in turn accentuate moral distress. To cope with moral threats, individuals may adopt religious or morally themed rituals or an obsession with moral strictness that can restore sense of order and safety. They may impose such compulsive moral standards on themselves and others around them, fearing the moral threat could harm both parties if not neutralised or compensated for. The individual may be seen as being morally scrupulous or having a compulsive or perfectionist personality. Nevertheless, their moral anxiety may be triggered by external events and social interactions.

4) Social Communication/Interaction



Some people with autism may also be at a greater risk of experiencing moral distress because of social communication and interaction differences (Brothers, 1990). Research has shown that adults with autism score lower than neurotypical [NT] adults on social cognition (Morrison *et al.*, 2019) including the inference of other people's intentions and mental states (Spek *et al.*, 2010) and identification of others emotions (Sasson *et al.*, 2016). Deficits in Theory of Mind (ToM) may make it more difficult for people with autism to judge the intentions of others who break moral rules. ToM includes the ability to read other people and guess how they may feel or think when this is different from one's own mind state (Velikonja *et al.*, 2019) and has been linked to moral decision making (Decety and Porges, 2011). As a result of deficits in ToM, some autistic individuals may find others' rule-breaking behaviour illogical and unpredictable as they cannot decode their intentionality. For example, research has shown that people with autism judge accidental harms more harshly, arguably due to their inability to form a robust representation of another person's benign intentions due to ToM deficits (Leekham, 2016). It is hypothesized that this may be due to people with autism having high levels of affective empathy resulting in high levels of empathic concern to protect others and at the same time high appetitive motivation to prevent harm in others (Patil *et al.*, 2016). Furthermore, moral decision making has been noted to be more emotionally difficult for people with autism due to high levels of personal distress (Patil *et al.*, 2016) and for people with alexithymic traits this may be associated with a reduced cognitive understanding of about other's internal states and a higher likelihood of adopting utilitarian responses in moral dilemmas (Patil *et al.*, 2016).

Some autistic individuals may also not intuitively recognise the needs, feelings and mental states of others, who violate rules and hence may not recognise the reasons for their rule violation. This could explain the research finding that moral reasoning is more likely to be driven by outcomes of a decision rather than intention of the person making the decision in people with autism (Koster-Hale *et al.*, 2013).

Differences in social cognition also include autistic strength in processing explicit information, such as the literal or direct meanings of others' behaviour and communication (Petrolini *et al.*, 2023). However, social rules are often implicit, leading autistic individuals to either misread social rules or find them ambiguous, and to find others' behaviour unpredictable. The ambiguity of people and the rules that govern their interactions can also heighten anxiety



about one's own adherence to social rules in the absence of explicit social feedback from others. Social interactions can be experienced as a frequent source of moral distress when one finds themselves breaking rules they misread and when others break one's rules.

Some individuals with autism opt to role learn and mimic mainstream social communication and interaction behaviours in order to follow societal rules, and in doing so camouflage their difference where they feel that such difference may break rules. Adults with higher self-reported autistic traits report greater camouflaging efforts (Brown *et al.*, 2020) and self-perceived camouflaging is associated with higher levels of psychological distress (Cook *et al.*, 2021). In terms of moral distress it is argued that camouflaging may be exhausting as it not only requires energy but is itself predicated on a constant fear of breaking rules by revealing oneself. Moral confusion can ensue as it often feels unfair to have to exert so much physical and emotional resource to follow rules whilst moral conflict may be generated by feeling deceptive by concealing the authentic self. For example, Kirchener (2016) found that people with autism rated their strengths as including authenticity, and individuals who endorse the character strength authenticity speak the truth and present themselves in a genuine way (Harzer and Ruch, 2014).

Nocon *et al.* (2022) also found that autistic adults most frequently reported the character strengths of honesty and telling the truth and honesty was associated with life satisfaction (Nocon *et al.*, 2022). In this respect, camouflaging may enable adherence to social rules around behavioural norms, on the one hand, but threaten the self-valued rules of authenticity and honesty, generating more conflict and distress. Furthermore, a strong sense of social justice and fairness (Cope and Remington, 2022) are often reported to be critical rules that autistic individuals value. Personality theory suggests that fairness consists of treating all people the same according to principles of fairness and justice. Where such weight is placed on the rule of social justice and fairness, moral distress may arise when this rule is violated by others in the personal or public space. Social injustices in the home, social, school, or work spaces, as well as those more systematically reflected in society or the political world, may therefore create intense stress, in terms of both their commission by others and one's own passive bystander role in them.

Overall, social behaviour is not wholly governed by the moral logic, rigid fidelity to rules, absolutist justice, consistent application of fairness, or explicit codes of conduct, that are

strongly needed and salient to some autistic individuals. Instead, social behaviours and indeed their expected endorsement may be driven by implicit social power dynamics, unspoken self-interest of the social actors and institutions, and emotional dynamics. Morality is often tapered by social politics and applied differently based on power and interest, and social morality is rarely absolute or static. Implicit contexts for morality may not only be unrecognised by autistic individuals if not made explicit but may also seem illogical and unjust once recognised. Social injustice and inequality, hypocrisy and double standards, and social expectations that seem unfair, may all generate particularly high angst in some autistic individuals. Some may rebel against or withdraw from mainstream social life, adopt alternative or fringe identities or else settle for minimal, superficial relationships, in order to avoid infidelity and immorality, leading to loneliness and isolation. It is postulated that people with autism may be more prone to moral distress due to their social interaction and communication styles that are rule driven, making the implicit socio-moral world around them psychologically distressed. Social and moral cognition differences are key to understanding how autism may heighten propensity for moral distress, as autism is a neurocognitive difference.

### 5) Cognitive Styles

Though not diagnostic criteria in themselves, several neurocognitive styles, or ways in which the mind processes and organises information, have been associated with autism by research. There are variations of such neurocognitive styles across the autistic population and some styles may pertain more to some individuals than others. These neurocognitive styles are relevant to understanding how moral cognition (moral reasoning, appraisals, and decision-making) may operate and are likely to underpin why some autistic individuals may have a heightened need for moral absolutes and rigid adherence to categorical moral rules.

Cognitive flexibility refers to the ability to switch between different task demands and requires monitoring the environment to realize that an on-going rule is no longer valid, inhibiting previous responses, finding, and shifting toward a new rule, and finally maintaining the new on-going rule (Latinus *et al.*, 2019). Difficulties in switching rules have been linked with perseveration (Landry and Al-Taie., 2016). Furthermore, it has been argued that

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difficulties in switching for some people with autism are exacerbated by deficits in the processing of socio-emotional stimuli which requires processing of subtle social inputs as well as the rapid processing of multi-sensory aspects of the environment (Latinus *et al.*, 2019).

In terms of morals, research has found that some people with autism are stricter than non-autistic people when it comes to tolerating exceptions to rules (Shulmam *et al.*, 2012) due to cognitive inflexibility and this has been associated with co-occurring mental health difficulties (Hollocks *et al.*, 2022). Thus, it is argued that when two moral decisions appear to contradict each other, and additional layers of moral decision-making are required to navigate complex and abstract decision-making, this may be more difficult for people with autism to achieve due to cognitive inflexibility. This may also be worsened by a heightened level of processing of fine detail (local coherence) and a diminished level of processing of the bigger picture (central coherence) (Happe and Frith, 2021) or abstract context (social imagination and context blindness). One implication of this is that social or moral rules may be followed to the letter and even minor violations may trigger stress or anxiety. Thus a ‘micro-morality’ can make everyday life full of morally injurious events and lead to significant distress at others’ micro-transgressions and worrying about one’s own. Every aspect of life that deviates from moral order and expected rules may be salient even if it is inconsequential in the bigger scheme of things.

Research has also indicated that autistic individuals may have stronger ‘systemizing’ and weaker ‘empathising’ abilities than neurotypical individuals. Empathizing-Systemizing (E-S) theory (Baron-Cohen *et al.*, 2003) proposes that people make social decisions by adopting a preference for either empathizing or systemizing. Systemizing refers to the attempt to predict and control phenomena through the application of rules, laws, and determinism (Baron-Cohen, 2009). Empathising is the ability to process implicit emotional and social cues. As a result of this profile, it is postulated that some people with autism are more likely to adopt rules-based moral decision-making as opposed to decision making based on emotions (Ringshaw *et al.*, 2021). For example, they may base their moral reasoning on facts, details, patterns (e.g. comparing and contrasting behaviours across and within people). This could explain why they show a preference for absolutist rules, categorical justice, and moral purity and why a small detailed transgression or inconsistency in the moral pattern may have strong salience. Studies of people with autism have shown more concrete moral reasoning and

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3 inflexibility in rule-based decisions (Shulman *et al.*, 2012). Thus, they may overlook emotional  
4 and social reasons for rule violations and the wider social contextual variations in how  
5 morality is applied and moral transgressions evaluated. By contrast, it has been suggested  
6 that people with autism might be over-reliant on information about action outcomes  
7 compared to other factors (such as the agent's mental states) when judging moral  
8 transgressions (Margoni and Surian, 2016).  
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### 17 **Individual Differences, Heterogeneity & Complexity of Autism & Moral Distress/Injury**

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20 Whilst the current paper seeks to develop the clinical nuance of our understanding of autism  
21 and moral distress or injury, it is important to emphasise both the complexity and  
22 heterogeneity of profiles associated with autism, as well as the complexity of moral decision-  
23 making and experiences. Moral decision making and experiences in autism are complex and  
24 involve an interplay between cognitive and affective components. Research in this area  
25 continues to evolve, generating variable findings depending on the measures of autism,  
26 samples, and moral-judgement related tasks used. For example, Zalla et al (2011) found that  
27 whilst individuals with high functioning autism judged moral transgressions of different types  
28 more seriously than their neurotypical comparators, they showed more specific impairments,  
29 concluding that an impaired cognitive appraisal system renders autistic individuals highly  
30 responsive to rule violations but less aware of the violator's intentions and the affective  
31 impact of their actions.  
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43 Moran et al (2011) similarly found that accidental and intentional violations were judged  
44 similarly by individuals with high functioning autism, suggesting the focus of moral reasoning  
45 was on the rules broken rather than the intention of those who broke them. Patil et al (2016)  
46 noted however, that moral decisions themselves were unimpaired and were experienced as  
47 emotionally arousing in autistic individuals as they were in neurotypicals. However, they  
48 found that different features of autism played different roles in the decisional outcomes. For  
49 example, mutually conflicting decision-making biases associated with two features of autism,  
50 namely increased personal distress associated with social situations and alexithymia,  
51 effectively compensate for one another, leading to a normal or rather neurotypical pattern of  
52 moral judgements in spite of social cognition and emotional processing differences. They also  
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found that intellectual learning can compensate for socio-affective differences arising from autism, resulting in normal, advanced moral decision-making in autism.

Clarkson et al (2023), however, highlighted the impact of the degree of autism on moral decision-making, reporting atypical patterns of moral judgement to be exhibited by individuals with higher levels of autistic traits. Labusch et al (2024) reported that whilst autistic individuals endorsed the propriety of utilitarian judgements more than neurotypicals, they felt less calm, suggesting a complex cognitive and emotional interplay involved in moral judgments of autistic individuals. There was further complexity indicated by age-related changes in moral decision-making, which were found in both autistic and neurotypical individuals, albeit found to be more gradual in the autistic group.

It is beyond the scope of the current review to capture the wider complexity of the literature on moral reasoning and autism, but the current illustrative examples simply serve to highlight the likely complexity and heterogeneity of moral experiences, and by implication moral distress and the factors that cause it, in autistic individuals. In practice, this points to the need for individual formulation of the multitude of factors that could interact to make some moral experiences distressing in autistic individuals, and to address those idiosyncratic needs in therapy where such moral distress is impacting mental health. It is important to move away from stereotypical notions of autism that depict inferior socio-moral understanding and associated emotional reactions, and to recognise the complex moral experiences and decisions of autistic individuals and the significant psychological impact these may have on their mental health. The current paper seeks to identify a number of features of autism which could heighten the vulnerability to moral distress, complimenting the growing research on autism and moral experiences and decision-making, and informing practice.

**Conclusion**

As the aforementioned discussion highlights, individuals with autism may have neurocognitive styles that create a hyper-morality, a heightened sensitivity to right and wrong, and an acute sense of social justice and conceptual empathy for others. They apply such hyper-morality and over-critical reasoning to their own behaviour as much as they do to that of others and may be as tormented by their own moral and social errors as they are

others' moral transgressions. It is important to challenge lay assumptions about autistic moral reasoning in order to ensure that false assumptions are dispelled and that autistic individuals' susceptibility to moral distress and moral injury is fully understood.

It can be hypothesised that some autistic individuals may be more susceptible to moral distress if their traits make them more sensitised to moral violations of a smaller degree, on a more regular basis, for longer periods, with stronger bio-psycho-social responses to such moral violations.

In a digital age that exposes us to constant news of moral transgressions and places constant demands to navigate online social communications and interactions, anxiety about others and oneself breaking moral rules may be accentuated and become generalised. Thus, some autistic individuals may experience greater and more frequent social, emotional, and existential conflict when faced with others' or their own rule violations, with such conflict triggering a visceral response that has strong physiological, emotional, cognitive and behavioural correlates. They may be less easily able to dismiss, neutralise or over-ride their experiences of moral outrage, moral anxiety, or existential discomfort, and as a result such experiences may be more subjectively intense, protracted, intrusive and impactful on their lives.

In individuals with a lower threshold for moral distress even the normal moral imperfections of everyday life may expose them to frequent and protracted morally injurious experiences, including within their family and friendship groups, in the education and workplace, and in their engagement with the wider socio-political context. They and others may simply come to expect that hyper-morality and oversensitivity to wrongs is part and parcel of their personality and socio-moral functioning and indeed this should not be pathologized and may afford them personal integrity and strength of character. However, where mental health becomes impacted by such hyper-morality, consideration needs to be given to not only the mental health outcome but its aetiology. Understanding such aetiology and devising treatment, both rely on an understanding of the earlier mentioned features of autism and how they intersect with morality.

As has been noted, moral distress may present in the form of: severe generalised or social anxiety; impaired daily functioning; social withdrawal; low self-esteem; negative self-

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reprimand; worthlessness; chronic and intense guilt; anger; agitation; restlessness; irritability; fatigue; burnout; repetitive negative rumination; lack of trust and depressive-like symptoms. In addition, for people with cumulative moral distress or cumulative moral residue this may lead to a crescendo effect and increase the potential for moral injury. Thus, in some cases if intense and prolonged moral distress continues and is unaddressed, this may increase the risk of moral injury for some autistic people providing a context for emotions such as anxiety, depression, guilt, anger and even suicidality. For some people with autism moral injury may also contribute to the presence of repetitive intrusive images and physiological and sensory re-experiencing of morally injurious events, and difficulty adjusting to life after a moral transgression (by self or others) may occur. This can appear as a reactive stress response and indeed it may well be, but the moral distress itself may be its antecedent and maintaining factor.

It should also be noted that during periods of anxiety people with autism may engage in an increased intensity and/or frequency of (Sellick *et al.*, 2021) compulsive, repetitive, and prolonged rituals, routines and repetitive rumination or intense pre-occupation. Hence, this should also be considered as a potential indicator of moral distress. Furthermore, when anxiety about transgressions or distress arising from it feel intolerable leading to moral injury, people may also adopt alternative means of coping such as alcohol/substances misuse and/or self-harm as a form of self-soothing and relief. However, self-harm and suicidality may also be adopted as a form of moral reparation. In cases where the distress and anxiety of one's own or others' transgressions feels intolerable and unresolvable, suicidality may follow.

Rumination has been found to significantly contribute towards a risk of suicidal ideation in people with autism (Arwert and Sizoo, 2020; South *et al.*, 2019) whereby it is suggested that an increased tendency to persevere on a particular train of thought or behaviour and difficulty imagining alternatives could increase risk of feeling entrapped, with suicide perceived as the only possible escape route (South *et al.*, 2019; Arwert and Sizoo, 2020). Intense and prolonged rumination on moral transgression may also accentuate the moral residue and crescendo effect for people with autism leading to an increased risk of moral injury in comparison to people without autism exposed to the same stimulus. Thus the potential for moral distress and moral injury needs to be considered when assessing risk to self in autistic individuals.



All the aforementioned symptomatology is common across many mental illnesses and indeed may be reported by many autistic individuals, however recognising its distinct aetiology where it arises secondary to moral distress in autistic individuals, is key to devising effective treatment. Hence, the underlying morally distressing mechanisms need to be detected, alongside the outward symptomatology. Potential ways in which this may be achieved for people with autism are made subsequently although it should be noted these are based on tentative hypotheses as empirical research exploring the mechanisms underlying moral distress and injury in autistic populations is yet to be established.

## Recommendations

- **Formulation:** Clinicians are advised to consider how both moral events and autistic needs and features can interact to shape antecedents, behaviours and consequences associated with moral distress and in some instances injury. At least 5 features of autism may be considered when formulating the triggers and maintaining factors for moral distress. Where such distress has led to moral injury and adverse mental health sequelae, clinical formulations of the presenting mental health challenges could consider the intersections between features of autism, moral distress and mental health.
- **Strategies to Enhance Resilience:** Moral transgressions may be an inevitable part of personal and public life, with either direct or vicarious experience (e.g. through watching/reading the news) to others' moral transgressions. Where it is not realistic to reduce the moral events that trigger moral distress, autistic individuals may be supported to manage the way in which they process the events that triggered such experiences. Ways to intellectually process moral transgressions, others' motivations for them, own practical inability to prevent all transgressions and the statistical probabilities of such events as part of a predictable model of human behaviour, may allow autistic individuals to use their systemizing ability to restore a sense of order. This will enable the use of autistic strengths and natural styles of thinking as natural sources of resilience, to develop psychological tolerance for moral imperfections that the individual has little control over and to reduce their distressing effects.



- **Psychological Therapies:** Therapy may include a focus on expanding predictive models of morality to allow more variations and margins of moral errors, in order to render moral and immoral behaviours all predictable and hence tolerable. The autistic individual cannot simply alter the way they process and organise the world, and nor should this be a target of treatment. Instead, the information they process can be developed, in order to best meet their needs. For example, rather than such treatments as CBT seeking to reduce an autistic individual's need for rules and moral logic, instead the rules and logic themselves can be developed to incorporate moral variability and rationales for moral transgressions. This can turn autistic features from vulnerabilities to sources of resilience against moral distress. Autistic features can be harnessed as sources of resilience against moral distress and indeed such features as systemizing, need for rules/logic and explicit social information processing can alter cognitive, emotional, and physiological responses to moral transgressions, rather than needing (or even being able) to cognitively restructure or change one's way of emotionally or socially dealing with the world. Where rumination is a primary driving factor for moral injury therapeutic interventions such as mindfulness could be utilised in improving a broad range of symptoms (Patel *et al.*, 2017). For example, mindfulness has been shown to reduce both rumination and mood symptoms in a pilot study of adults with autism (Spek *et al.*, 2013). Such interventions could also include the use of mindfulness soothing (sensory-motor and other forms of soothing) and cognitive diversion techniques to assist in reducing the intensity and duration of pre-occupation with and rumination on moral transgressions when they arise. Finally, for clients who are prone to moral distress and injury as a result of perfectionism and rumination, Radically Open Dialectical Behaviour Therapy (RO-DBT) could be considered as an area for future investigation. This has been developed as an adapted form of DBT to directly target over-control. The therapy introduces strategies to improve social connectedness and intimacy and to reduce social isolation by improving emotional expression and the ability to respond more flexibly. Early indications are that autistic individuals who completed RO-DBT had significantly better outcomes post treatment (Cornwall *et al.*, 2021). Thus, future consideration could be given to investigating the efficacy of adopting RO-DBT for clients who are prone to moral distress as a result of perfectionism and rumination.

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- **Lifestyle Coaching:** Reducing the likelihood of exposure to moral transgressions may also be viable in some instances. This can include selecting more predictable and morally compliant social circles, tasks, and ways of life, and accessing rules and routines (e.g. policies, procedures and laws) that can assist to restore moral order. Routines can also be designed to reduce exposure to information on moral transgressions (e.g. schedule limited periods of online activity, to reduce doomscrolling and exposure to news of moral transgressions). Furthermore, communication and problem analysis skills that enable the autistic individual to better analyse others' complex intentions and moral behaviour may be helpful. This can include developing scripts to ask others about their needs and intentions, developing hypotheses about when and why others may breach expectations and moral codes.
- **Self-Help:** When an autistic individual feels that they have broken rules in ways that cause them distress, they can be supported to identify and communicate their own needs (e.g. for rules, and guilt arising from rule violation). Where an individual has engaged in self-transgression of their own moral codes, they could benefit from approaches which teach self-forgiveness, acceptance, self-compassion, and (if possible) making amends using therapies such as Acceptance and Commitment Therapy (ACT) (Williamson *et al.*, 2021).
- **Mental Health Services for Trauma:** As noted by Williamson *et al.* (2021) treating people whose mental health problems are caused by moral injuries can be challenging for clinicians. This is because trauma based interventions such as exposure-based approaches could worsen symptoms of shame and guilt. In addition CBT based interventions which seek to target cognitions (thoughts) could also be unhelpful as the moral thinking may not be distorted or pathological and hence does not require re-appraising. Rather the aspect of treatment that may be required would be coming to terms with the shame and guilt that arises from a personal transgression or the lack of trust and anger which may occur as a result of others' transgressions. Clinicians supporting people with moral distress should do so sensitively as this is likely to be linked to shame and guilt (Williamson *et al.*, 2021).
- **Cultural Support:** In instances where the effects of moral distress extend beyond psychological to spiritual harms (e.g. chronic guilt and obsessionality that operate in

the context of religious beliefs and behaviours), it may be appropriate for spiritual care providers to play a role alongside mental health clinicians (Williamson *et al.*, 2021) to ensure the individual engaging in mental health services can be supported within their own preferred spiritual and cultural frame of reference. When appraising moral distress in autistic individuals it is important to consider their social and cultural norms and assist them to alleviate negative impacts of moral distress in ways that maintain fidelity to the norms they choose to live by, be they religious, societal, or family norms. Autistic individuals may also benefit from support to decode more implicit moral and social codes (e.g. the unwritten social contextual expectations and assumptions when exposed to new social, cultural, or occupational groups).

- **Strengths Philosophy & Systemic Moral Health:** the role of moral experiences in shaping wellbeing may be important to address when working with autistic individuals, where susceptibility to moral distress and injury may necessitate clinical or wider support. Nevertheless, it is important to emphasise that such a susceptibility may arise from autistic strengths rather than impairments. It is important to adopt a strengths-based philosophy when addressing moral distress and injury, and to nurture and celebrate the moral rigour and conscientiousness displayed by many autistic individuals. At the philosophical level, it is incumbent on society to strive to become more morally diligent, rather than for autistic individuals to become less morally exacting. The current paper has focussed solely on clinical perspectives on how to understand and support autistic individuals' experience of moral distress and injury, due to its very specific clinical aims. That is not to underplay the importance of societal, systemic approaches to reducing moral injury by strengthening the moral strengths of all social structures within which autistic and non-autistic individuals live. Whilst beyond the scope of the current paper to address, improved societal moral health is the broader context in which moral distress and injury can be reduced.

**Author Biography**

**INSERT for Publication**

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Figure 1 – Proposed interaction between the five dimensions of Autism and Moral Injury

