# How might moral emotion develop in KS2 (7-11 years)?

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# 1. Introduction

I have always been interested in human behaviour and happiness: what motivates us and how we can live in a way that not only facilitates our own wellbeing but also supports the flourishing of others. Wanting to help children grow into happy and balanced individuals, as a young adult I became a primary school teacher and worked in this role for several years in England and China. Whilst my experiences working with children were rewarding, I felt that the demands of the job were not conducive to my personal nor professional happiness. To support myself during this challenging period, I aspired to lead a mindful lifestyle which led me to work for a time as a mindfulness facilitator in international schools. Alongside this role I began a masters in Character Education to broaden and deepen my knowledge and understanding of how schools can improve the way they support student flourishing. More recently, I became a mother to very sweet but demanding twins, urging me to reflect on my own character. Ultimately, my background and present life motivate me to write my masters dissertation on a theme concurrent with improving the wellbeing of young people and society. The most poignant concept that has come to a fore through my studies is Aristotle's *phronesis* (practical wisdom) as it holds much promise for helping individuals to manage their emotional life and decision making processes in a way that leads to a fairer and kinder world.

Since research on the cultivation of practical wisdom's is lacking, especially in children, I have decided to focus my efforts on a literature review on how moral emotion - a key component of practical wisdom - may develop in the primary classroom, specifically in KS2 (7-11 years). This will include an attempt to elucidate the concept of a moral emotion as well as an in-depth look at what existing theory and research indicates about its development. My reasons for this non-empirical approach to the dissertation are twofold. Firstly as a stay at home mum living in the Netherlands, my access to English speaking primary age participants is very limited. Secondly, I feel that there is a need to get a better grip on what has already been written on the development of moral emotion in the chosen age group in order to facilitate further research.

The age group of KS2 has been selected as there is already a wealth of evidence that shows that other-oriented emotions are in development from an early age (Davidov et al. 2013; Hoffman, 2000). As such, there is fair potential that moral emotion (emotion fused with right reason) and other inherently moral emotions (sympathy and compassion) will be at a key point of development in this later stage of childhood. Occasional exceptions from younger or older age groups may be included when the theoretical point or empirical evidence is particularly elucidating. Moreover, since my own teaching experience has been largely in KS2, I hope that I will be better able to understand the possibilities of how moral emotion may develop in a classroom setting as well as provide well considered practical applications of the suggested approaches.

Before looking at the nature and value of moral emotion in depth, it will first be necessary to consider its parent concept of practical wisdom in order to understand the important role it has to play in education and deal with some of the common rejections it faces. This will be followed by a large section for the conceptual clarification of moral emotion, considering how it is perceived in the fields of philosophy and psychology and trying to draw some neat lines of how it can be viewed as a construct for development in the KS2 classroom. Once the conceptual work is complete, a detailed overview will be given on the possible development approaches for moral emotion along with a critical commentary of what the more salient ideas may be. It is hoped that the findings can inform empirical research in the KS2 age group and that they may inspire teachers' exploration of how to foster moral emotion in their classrooms.

# 2. Practical Wisdom

## 2.1. What is practical wisdom and why is it important in education?

Aristotle's virtue ethics has been granted a recent resurgence within education and other fields, offering fitting, theoretical guidance for the current challenging educational and professional climate (Bohlin, 2022; Schwartz and Sharpe, 2010). Within the many virtues that support a flourishing life, practical wisdom is seen as a central, overarching meta-virtue, guiding all others towards moral action. When one or more virtues conflict, practical wisdom plays an adjudicating role (e.g. in situations that call for both kindness and honesty); it helps us to exercise virtue in the right amount (as too much or too little may lead to vice), at the right time and with a corresponding, fitting emotion (Annas, 2011; Kristjánsson, 2018; Schwartz and Sharpe, 2010). Whilst the function of practical wisdom is relatively easy to describe, breaking it down into smaller parts that can be targeted for development is a more complicated task. A recent four-component model of practical wisdom offers clarity: moral moral perception; moral reasoning; moral identity; and moral emotion (Darnell et al. 2019). Firstly, moral perception is the ability to notice whether a situation is morally relevant so that a suitable course of virtuous action can be determined. Once the moral aspects of a situation have been perceived, moral reasoning, the process of considering all details and deciding the best way to act, supports the navigation of complex moral dilemmas. Moral identity, an in-built sense of what is 'good', and moral emotion, the fusion of emotion with reason, work together to provide motivation towards right action. For the purpose of this literature review, moral emotion has been selected due to the likelihood that it is already in development and is malleable in the selected age group of KS2 (7-11 years) (Davidov et al. 2013; Hoffman, 2000). Moral perception will be touched upon briefly in the review as it tends to go hand in hand with moral emotion - perception can precede the feeling of a certain emotion and emotion can also colour our perception (Sherman, 1991) - but the cultivation of this component in KS2 requires more thorough consideration elsewhere. Whilst moral reasoning and moral identity are also key motivators in moral action, it is widely believed that the development of these components is foregrounded in adolescence and early adulthood (Hardy3, 2006; Nucci, 2004), so examining their cultivation would be better suited to a separate project.

There is substantial concurrence between the fields of education, philosophy and psychology that practical wisdom offers promise as a guiding theory for the development of human flourishing (Arthur et al. 2017; Grossmann, Dorfman and Oakes, 2020; Kristjánsson, 2018). Firstly taking the concept from its Aristotelian origin, practical wisdom is seen as a meta-virtue that not only ensures we enact virtues in accordance with each new situation, but that we are able to develop knowledge of what the good life entails, aspire towards it and deliberate wisely to reach it (Annas, 2011; Kristjánsson, 2018; Schwartz and Sharpe, 2010). From an educational perspective, the Jubilee Centre for Character and Virtues in the UK has stimulated theory and research that illustrates the potential of practical wisdom as a central pillar of character education (Arthur et al. 2017).

In acknowledgement of the complex task of reaching a psychological consensus on the more general concept of wisdom, Grossmann et al. (2020) elucidated two central elements: moral aspirations and PMC (perspectival metacognition), which resonate substantially with practical wisdom. PMC can be viewed as a form of practical wisdom's moral perception as it enhances the ability to see situations clearly. For example, PMC helps us to: recognise the limitations of our own knowledge; be open to different perspectives; and be willing to explore ways to integrate them (Grossmann et al. 2020). As a result one can grasp the moral resonance of a situation more clearly, leading to a better informed emotional response and subsequent virtuous action. Moreover,

Grossmann et al. (2020) report on empirical findings that highlight wisdom's dependency on sociological and ecological factors, matching the way that practical wisdom helps to discern the particulars of a situation, informing the enactment of corresponding virtues.

Adding to the above parallels between wisdom as a psychological construct and practical wisdom's moral perception, there is growing acknowledgement that emotions play an essential role in guiding our ability to make wise decisions - as is central to practical wisdom (Darnell et al. 2019; Kristjánsson, 2018; Sherman, 1991). Notably from a philosophical standpoint, the idea that emotions share a close relationship with our thought processes and actions is nothing new. Aristotle, unlike his predecessor Plato, prioritised the training of reason infused emotion in his theory of moral development. For Aristotle, "…the solution is not to quiet the passions, as Plato might have suggested through his notion of a rationally ordered soul, but to appeal to them, to be aroused by their sensitivity, to see with the heart" (Sherman, 1991, p.48). Subsequent philosophers such as Thomas Aquinas (Lombardo, 2012) and Jean-Paul Sartre (Hatzimoysis, 2010) continued to argue for a greater focus on the role of emotions in decision making. In the last few decades, as a result of dominating politically liberal ideologies, schools have strived to remain morally neutral, even with regard to emotion education, for fear of indoctrinating their students. More recently however, there is a growing realisation of the need to address emotion education from a moral point of view in order to help students become ethically wise and flourishing individuals (Maxwell and Reichenbach, 2005). Adding empirical evidence to boot, metacognitive elements of emotion and the ability to regulate emotion have been found to be malleable from a young age (Lombardi et al. 2022), giving hope to the potential of moral emotion development in schools, which will be further explored in the development approaches section.

## 2.2. What are the issues with practical wisdom?

Despite its promise as a leading conception of wisdom, there are nonetheless some issues with practical wisdom that require attention, foremost with Aristotle's unity of virtue theory. On the strictest readings of Aristotle, in order to have any proper (fully developed) virtue, one must become a *phronimos* - someone who consistently and accurately applies practical wisdom in their life - as practical wisdom is required to ensure a virtue is enacted through an 'all things considered' lens. But this would mean that once we have one proper virtue, we would then have them all (Annas, 2011). Always finding the right balance of every virtue and never succumbing to vice seems a very tall order, and indeed it is not difficult to imagine individuals who are strong in one virtue but weak in another (e.g. someone who is genuinely and consistently generous but lacks temperance with alcohol). Ferkany (2020) suggests that the development of proper virtues and practical wisdom are in fact separate processes and that it is possible to have developed one or more virtues in full without having a complete grasp of practical wisdom. "Having full virtue may not necessarily mean always getting it right and even fully virtuous persons can have need of self-improvement guided by practical intelligence" (p.119). Sherman (1991) tackles the unity of virtue issue by highlighting how practical wisdom requires the agent to live a life in social relation to others in which "…the experience and expertise required for virtuous action…can be borrowed from others" (p.54). In this way, the individual does not need to have perfected all virtues to be able to exercise practical wisdom, but may draw on what has been called collective phronesis (pooling resources from friends, colleagues, mentors, etc.).

If we stick with the unity of virtue theory, it would seem almost impossible for even many adults to ever develop full virtue or practical wisdom, let alone children. Yet many theorists have been charitable enough in their readings of Aristotle to see ways in which he may have been too harsh

with his moral development theory, offering the possibility that the seeds of practical wisdom are nourishable from a young age (Burnyeat, 2012; Curzer, 2012; Sherman, 1991). Sherman (1991) holds that virtue development is an ongoing critical and reflective process that begins in childhood. She suggests that whilst the ability to deliberate and resolve complex dilemmas will only be fully developed in later life, a child may begin to reason and discriminate and their cognitive capacities will gradually pair up with their emotions towards moral action (providing some hope for the task at hand of cultivating moral emotion in KS2). Furthermore, Sherman suggests that the discernment of the particulars of an ethical situation is trainable in children and that they should be "…encouraged to learn and pay attention to what they see and discriminate differences in order to react accordingly with fitting emotions and actions" (1991, p.9). Finally, even if Aristotle saw the child as undeveloped and lacking self-control and good judgement, he considered that it is possible for a child to be guided by his morally wise elders. Sherman interprets this as the possibility for Aristotle to adhere to a developmental model of the child who is on the way towards full humanity.

As mentioned above, a more general complaint about moral education comes from dominating liberal voices that consider the school to be a morally neutral place where children should be given total freedom in their emotional development (Arthur, 2020). This distaste for moral training in schools thus includes deliberate attempts to cultivate practical wisdom. What is being overlooked here is that at the very heart of practical wisdom is a highly conscious and reflective process that does not hinder an individual's ability to make up their own mind on the right way to act, and to some extent on how to feel. The impetus to reflect and become aware of one's thought processes and emotions may very well come from external forces (e.g. teachers), but the point is to develop independent moral agents who can think and decide for themselves (Kristjánsson, 2018; Sherman, 1991). Later it will be considered how metacognitive and metaemotional strategies can help to shine a light on thought processes and emotional experiences from childhood so that they can be motivated towards moral ends.

## 2.3. What is a moral emotion? How is it relevant in KS2?

With the difficulties of practical wisdom hopefully sufficiently resolved, the task remains to elucidate one of its key components, moral emotion. In an Aristotelian conception of human flourishing, the importance of emotions in the good life is hard to miss. It is only possible to have proper virtue if the enactment of that virtue is furnished with a fitting emotion, otherwise it has likely been performed for the wrong reasons and not out of a genuine feeling and knowledge of what is good (Curzer, 2012). As moral development progresses, through a process of critical reflection, emotions become fused with right reason, leading to more finely tuned virtuous action. This fusion of emotion with right reason will be referred to in what follows as 'moral emotion'. In addition to this general view of how emotions can become moral, empathy, sympathy and compassion will also be considered. This set of 'fellow feelings' have been widely theorised and empirically found to play an important role in motivating towards moral action, along with moral identity and moral reasoning (Darnell et al. 2019). Moreover, empathy and sympathy and the beginnings of compassion have been identified as in development from infancy (Davidov et al. 2013; Hoffman, 2000; Peplak and Malti, 2021). Since this trio of other-oriented emotional capacities are already maturing along a developmental trajectory, and are likely malleable within the chosen age group of KS2 (7-11 years), they will be given priority in this review alongside the more general Aristotelian view of moral emotion.

# 3. Moral Emotion

## 3.1. What is a moral emotion for the scope of the review?

From an Aristotelian point of view, emotion can be regulated and fused with reason through a process of outside guidance, reflection and critical refinement, towards moral ends. It is important to note that this is different from the way emotion regulation is commonly conceived as the policing or suppression of emotion, but stems from a more neutral stance; any emotion can have moral worth if it helps to motivate towards moral action (Kristjánsson, 2018). There are several key emotions that are particularly important in the formation of practical wisdom. But for the sake of the review, empathy, sympathy and compassion have been singled out due to their developmental salience in the selected age group (7-11 years). From a psychological perspective, the development of empathy from infancy - the capacity to feel what others feel - paves the way for sympathy, an emotion which is more indicative of other-helping behaviour (Davidov et al. 2016; Eisenberg, Van Schyndel and Spinrad, 2016; Hoffman, 2000). Building upon sympathy, compassion, through its incorporation of a more reasoned and global perspective, provides stronger motivation for prosocial action (Peplak and Malti, 2021; Roeser and Eccles, 2015). In Darnell et al. (2019) empathy, sympathy and compassion are clustered together as a set of 'fellow feelings' and are viewed as key motivators of moral action (alongside moral perception, moral identity and moral reasoning). However, as it will be demonstrated, the moral nature of empathy remains ambiguous and it is instead better viewed here as a precursor to the more morally salient emotions of sympathy and compassion.

## 3.2. Moral emotion from a philosophical standpoint

In order for emotion education to be deemed appropriate or effective, it needs to come from a soft rationalist perspective that views emotions as malleable and subject to reason: unlike hard sentimentalism in which emotions are uneducable through reason; or hard rationalism in which rules and beliefs are sufficient for moral action, rendering emotions irrelevant. Aristotle, as a soft rationalist, placed great emphasis on the role of emotion in guiding virtue: he believed that moral values are tracked by and constituted by emotions, and that these emotions can become subject to reason (Kristjánsson et al. 2021). From this position, the more rationalist view that emotions are unreliable as a guide to moral action is too simple; Aristotle claimed that emotions can become moral through guidance and habituation, tethered by rational judgement, towards moral ends (Sherman, 1991). This subtle notion of emotion regulation (contrasted with a less subtle view of regulation as mere suppression), increasingly upheld today in the fields of psychology and education as a key element in leading a flourishing life (Brophy-Herb et al. 2016; Darnell et al. 2019; Kristjánsson, 2018), is about rationally assessing emotions following objective judgements to ensure they are fitting to a situation: emotions must have the right 'shape' and 'size' (Kristjánsson et al. 2021). Ultimately, being able to feel one's emotions and pair them with rational judgement can reveal what is morally salient in a situation as well as provide guidance and motivation on the right way to act. In this sense, any emotion can become virtuous if it helps an individual to identify the right course of action towards a moral outcome, e.g. when feeling anger in the face of injustice and using its heat to motivate finding and enacting an ethical resolution.

From a strict Aristotelian point of view however, the notion that children could furnish their emotions with reason is somewhat difficult, since emotions that aim at doing good develop before the moral learner has come to understood what exactly the good is or why something is good (Burnyeat, 2012). In Aristotle's stages of moral development, humans are endowed with natural capacities for developing virtues from birth, and only become more critical and stable (proper) virtues later in adolescence, as a result of guidance, habituation and life experience (Curzer, 2012).

However, as previously mentioned, more charitable accounts of Aristotle view that the process of bringing one's emotions in line with reason to discern the particulars of a situation and figure out the right way to act can already begin in childhood, even if it will not reach its full potential until later (Curzer, 2012; Sherman, 1991). Sherman (1991) highlights the importance of critical and reflective repetition and refinement in the process of developing virtue, including the education of emotions. Hopefully then, with the right classroom approaches and guidance, the process of bringing emotions in line with reason can already begin in childhood. Later, evaluative research on the development of metacognition and metaemotion in KS2 will be used as a means of exploring potential strategies for the conception of moral emotion as emotion fused with reason.

When looking at how empathy, sympathy and compassion contribute to a conception of moral emotion, there is a need to turn to a more modern and psychological understanding of moral emotion since Aristotle gave little definition or clarification of these terms. By examining empathy, sympathy and compassion through a mainly psychological lens, their development can be better understood, facilitating the task of finding fitting educational approaches. First however, it is worthwhile reviewing Aristotle's use of empathy, sympathy and compassion as they still bear resemblance to how psychology generally views these emotional capacities.

As the weakest link, empathy is virtually absent in Aristotle's work, apart from in the way he refers to compassion as requiring the capacity to imagine that we or others can suffer (Kristjánsson, 2018). Sympathy, from a philosophical perspective, can be defined as: "pain at another person's bad fortune" (Kristjánsson, 2018, p.76), but it was not a prominent feature of Aristotelian theory. However, sympathy has been identified as similar to Aristotle's concept of *philanthrōpia,* an emotion that is directed towards people in pain, regardless of whether their suffering was deserved or not. *Philanthrōpia* can be interpreted as a developmental precursor to compassion that has not yet matured sufficiently to determine the source and circumstances of a person's suffering (Kristjánsson, 2018), which echoes the psychological view of how the maturation of a child's cognitive faculties lead them to develop a more discerning form of sorrow towards others (Malti and Krettenauer, 2013; Spinrad and Eisenberg, 2017). Importantly, unlike empathy and sympathy, compassion played a clear and central role in Aristotle's conception of how moral emotion can motivate moral action. Aristotle defined compassion as "pain at another's undeserved bad fortune" (Kristjánsson, 2018, p.73). Nussbaum (1996) elucidates Aristotle's conception of compassion further as requiring the suffering to be serious rather than trivial and similar to one's own background and situation. In what follows, parallels will be drawn with psychological perspectives on compassion to help indicate how it may be developed in KS2.

## 3.3. Moral emotion from a psychological standpoint

Empathy, sympathy and compassion can be viewed within psychology as moral emotional capacities as they have been widely evidenced as key motivators of prosocial behaviour (Davidov et al. 2016; Eisenberg, Van Schyndel and Spinrad, 2016; Hoffman, 2000; Maxwell and Reichenbach, 2005). Briefly put, empathy can be understood as "…an affective state that stems from the apprehension of another's emotional state or condition, and that is congruent with it" (Eisenberg and Miller, 1987, p.91). Therefore, whilst empathy is key in noticing the emotions of another, it does not necessarily lead to doing the right thing. Sympathy on the other hand can be viewed as: "…an emotional response stemming from another's emotional state or condition that is not identical to the other's emotion, but consists of feelings of sorrow or concern for another's welfare" (Eisenberg and Miller, 1987, p.92). Here, sympathy holds a greater chance of prosocial action than empathy due to the enhanced feeling of concern for the other. More likely still in its capacity to lead

to moral action, compassion follows on from empathy and sympathy to include motivational and behavioural components (Peplak and Malti, 2021; Roeser and Eccles, 2015).

Other positively valanced emotions - e.g. love, joy, gratitude - are also worthy of consideration as they too likely motivate towards moral action, but since it has been evidenced that empathic concern (later leading to sympathy and compassion) is already present from the end of the first year of life (Davidov et al. 2013), the other-oriented trio of empathy, sympathy and compassion will take priority in this current exploration of how moral emotion develops in middle childhood. Moreover, whilst negatively valanced emotions - e.g. shame, guilt, remorse - have also been suggested as key motivators of moral action (Burnyeat, 2012), there is little consensus on this theory, and in psychological research, shame has been commonly found to be negatively motivating (Kekes, 1988; Maxwell and Reichenbach, 2005). Nonetheless, for a comprehensive account of how moral emotion may develop in childhood, further work is required to explore the role that other emotions have in motivating moral behaviour.

# 4. Empathy, Sympathy and Compassion

## 4.1. What is empathy?

In modern psychology, empathy can be viewed as a general emotional capacity rather than a discrete emotion that whilst being an important prerequisite of moral action, does not necessarily lead us to do the right thing. To give a recent definition, empathy is "…an affective response that stems from the apprehension or comprehension of another's emotional state or condition, and that is identical or quite similar to what the other person is feeling or would be expected to feel" (Eisenberg, Spinrad and Knafo-Noam, 2015, p.611). From a neuroscientific perspective, Davidov et al. note how empathy "…is rooted in the brain - observing another individual experiencing an emotion or sensation activates some of the same neural substrates that are operative when the self experiences that same emotion or sensation first hand" (2016, p.1659), matching somewhat the Aristotelian view of empathy as a natural virtue - an innate capacity - in need of guidance and critical refinement.

Whilst empathy does not conceptually contain a motivational or behavioural component, many studies show that empathic concern leads to prosocial action even at one's own cost in both children and adults (Batson, 1991; Eisenberg, Spinrad and Knafo-Noam, 2015; Knafo et al. 2008). Recent research suggests that empathic concern leading to sympathy is present from the first year of life - not just the second as previously thought (Davidov et al. 2013). Moreover, empathy is not automatic or indiscriminate - it has been shown to be dependent on interpersonal processes and contextual details. For example, even toddlers show less empathy if the other's suffering is unjustified (Chiarella and Poulin-Dubois, 2013; Vaish, 2016). This would suggest that improved interpersonal and environmental awareness would lead to more suitable empathic responding. Later it will be considered how metacognition and metaemotion may facilitate this.

Hoffman (2000) champions the role of empathic distress as a fundamental prerequisite of prosocial action. Whilst it has been pointed out that empathy is often enacted instrumentally (to make ourselves feel better) (Bloom, 2016), research suggests that empathy is ultimately fundamentally prosocial (Eisenberg and Fabes, 1998; Knafo et al. 2008). If we helped only because it felt good, it would not matter if the end result helped or not because the act of helping alone would be enough to make us feel good. But when we try to help but fail for reasons beyond our control, we continue to feel distressed. In the end, even if we do feel better by helping as a result of a reduction in our own distress, the end goal is to alleviate the distress of the victim.

Empathy remains problematic however as a reliable motivator of moral action. As elucidated by Hoffman (2000), bystander effects can inhibit responding in a way that helps the victim. These include: pluralistic ignorance - no one else is helping so I guess it is not an emergency; and diffusion of responsibility - I am sure someone else will help. When others are not present, individual bystanders may also not help as a result of selfish motives (e.g. financial cost). Even those with kind and compassionate dispositions may not end up helping when the costs are high (e.g. helping the Jews during the Holocaust). An additional factor is that people may try to avoid feeling empathy towards others because they know it will cause them to feel empathic distress and its motivational consequences (Hoffman, 2000).

Critics of empathy have cautioned its use in moral deliberation as it focuses too much on relieving the suffering of an individual rather than considering the greater good and that it blinds our rational faculties from our biases (Bloom, 2016; Prinz, 2011). Both authors largely take issue with empathy's affective component - feeling the same emotion as another - and claim that this can do

more harm than good. Whilst often referred to as an emotional capacity that leads to helping others, Bloom (2016) points out that empathy can also be used intentionally to do harm; when understanding another's emotions is used for deception and manipulation. Moreover, echoing the work of Hoffman (2000), Bloom highlights how empathic distress may be exhausting and overwhelming, inhibiting our ability to take moral action. Ultimately, he suggests that since cognition and affect are, in his view, separate processes, emotions are not necessary for moral decisions which can be better informed by reason. But both Bloom (2016) and Prinz (2011) do single out one emotion as a key motivator of moral action: compassion. Since compassion does not require us to feel the pain of another and tends to be more impartial, it allows us to demonstrate sustained concern and support to a wider group of people.

Such criticism may seem to render empathy pointless and even dangerous as a guide to moral action, but empathy can still play an important and helpful role in motivating prosocial action when combined with reason (Morris, 2019). As will be further illustrated below, from early childhood empathy becomes more balanced, nuanced and discriminating, leading on to sympathy and compassion which are far more likely to be successful in wise and moral decision making and action. This developmental transition from empathy to sympathy and compassion will later be explored through a lens of metacognition and metaemotion (especially emotion regulation), in order to pick out specific approaches that may assist in the process.

## 4.2. How does empathy develop in childhood?

First off, it is important to establish how empathy develops from an early age in order to understand its starting point for further cultivation. From infancy, involuntary empathic responses - e.g. conditioning, association and mimicry - develop which enable the automatic detection of distress in others resulting in corresponding emotions (Hoffman, 2000). Additionally, from around 18 months, top-down processes that are slower and more effortful, requiring self-awareness and cognition, begin to emerge (Vaish, 2016). These include mediated association (when distress is communicated through language e.g. speech or written text) and self or other focused role-taking. However, these more advanced pathways to empathy are still not guarantees of moral responding as they can lead to "egoistic drift": the experience of overly identifying with another's pain (Hoffman, 2000).

Most evidence indicates that involuntary empathic responses remain the most powerful triggers of empathic distress until children develop a more sophisticated awareness that other's have different life situations, around 9 or 10 years old (Hoffman, 2000). This would suggest that within the KS2 age group (7-11 years), empathy is largely present as a result of automatic responding, and as such would require the support of the teacher to help students become aware of their empathy and fine tune it towards more stable and reflective moral emotions, namely sympathy and compassion.

## 4.3. What is sympathy?

Confusingly, empathy and sympathy are commonly referred to interchangeably. A significant difference however is that sympathy infers a greater likelihood of taking action towards helping the other who is in distress, whilst empathy tends to precede sympathy and does not always result in moral action, due to a number of issues as indicted above. Eisenberg, Spinrad and Knafo-Noam describe sympathy as: "feeling sorrow or concern for the distressed or needy other (rather than feeling the same emotion as the other person is experiencing or is expected to experience)" (2015, p. 611). This likely enables sufficient distance from the others' distressing emotions leaving space for taking action without getting overly emotionally involved nor fleeing the situation for fear of becoming distressed oneself. Generally speaking, sympathy follows on from empathy and is a fairly

reliable indicator of altruistic motives and behaviour, including children of primary school age (Eisenberg, Van Schyndel and Spinrad, 2016).

## 4.4. How does sympathy develop in childhood?

Hoffman (2000) hypothesises that once children have developed a sense of self and separateness to others (usually beginning later in the second year of life), they are able to transform their own feeling of empathic distress into sympathetic distress. Consequently, whilst they still may feel some level of egoistic concern for their own distress, they start to be able to offer help towards the other. This can be viewed as the child's first truly prosocial motive, which continues to develop in later childhood and into adulthood. A large, longitudinal study of 6 year old children revealed that as levels of sympathy increased, participants were more likely to feel morally motivated, leading in turn to prosocial action. Interestingly, the study showed that this is more likely in children who previously showed lower levels of moral motivation (Malti et al. 2009), suggesting that classroom interventions for developing sympathy may be very effective.

Assuming that the classroom already provides a suitable environment for empathic arousal, likely through pre-existing conditioned responses, or possibly through more mature pathways of mediated association or role-taking, it seems likely that sympathy can also be fostered. This may involve teacher-led activities or conversations that aid reflection and awareness of their emotional experience, and by supporting emotion regulation so that students can learn to feel at ease with their empathic distress and begin to offer help towards the suffering other.

## 4.5. What is compassion?

Within psychology, compassion is a widely contested concept and ideations range from a synonym for love to a secretly self-centred motivation (Roeser and Eccles, 2015). In an attempt to bring some simplicity, compassion can be viewed as the capacity to feel the suffering of others coupled with the wish to relieve it (Miller, 2006). It has also been framed within the concept of kind orientation - the general desire to care for others - but made unique in how it occurs in response to the suffering of others, unlike other kind orientations which do not require suffering e.g. generosity and gratitude (Peplak and Malti, 2021). Looking back at Aristotle's version of compassion as pain at the serious and undeserved suffering of another (Kristjánsson, 2018; Nussbaum, 1996), modern definitions seem to be less discriminate - a more general desire to relieve the suffering of others - which may suggest that in order for compassion to be fully moral, it should be informed by a comprehensive awareness of the other's situation.

Together with empathy and sympathy, compassion forms a family of 'other-oriented emotions'. But unlike empathy, compassion is less likely to lead to personal distress and therefore more reliably results in the desire to take action to relieve the suffering of others. Compassion also involves more complex cognitive processes. Whilst sympathy brings feelings of concern for another, it may be affected by situational details and does not always result in emotional tolerance and a desire to help, whereas compassion is comprised of a stronger behavioural component, leading to a greater chance of acting with moral intent. In short, compassion can be viewed as a more fully developed form of empathy and sympathy that is fully regulated and more consistent in relieving the suffering of others.

Peplak and Malti (2021) expand compassion with three main components:

a) feelings of concern towards a suffering other or group (an affective component stemming from empathy and sympathy);

b) tolerance of one's own distress and non-judgment of the other (an attitudinal component);
c) the desire to alleviate the pain of the sufferer.

It seems likely that any development approaches that aim to enhance empathy and sympathy in children would already cover the first component of compassion - feelings of concern for another. To further cultivate compassion, emotional tolerance (or emotional regulation) would need to be fostered, so that the initial desire to help is not diminished by other factors such as: the cost of helping; becoming overwhelmed by one's own distress; or the familiarity (or lack thereof) of the suffering other.

In an earlier model of compassion, Roeser and Eccles (2015) indicated four components: cognition - awareness of suffering; affect - feeling the suffering; intention - desire to help alleviate suffering; and behaviour - preparedness to alleviate suffering. However the first two (cognition and affect) would already be covered by the preceding emotions of empathy and sympathy, and so it seems sensible to place more focus on compassion's additional components of intention (motivation/ desire) and behaviour (actually helping where possible). Parallels can be quickly drawn with Peplak and Malti's (2021) model with 'intention' or motivation being comparable with 'tolerance', since if one has the ability to accept and be present with one's own distress, the motivation to help can be sustained. Missing however from Peplak and Malti (2021) is the crucial behavioural component, ensuring the right actions are taken to alleviate the suffering of the other. Looking ahead, approaches for the development of compassion should attempt to stimulate and maintain both a child's motivation and resulting helping behaviour (e.g. through emotion regulation strategies).

It is worth noting here two main type of compassion: familial and global. With familial compassion, care is readily expressed towards those who are closest to us (Frakes, 2010). This also echoes Aristotle's compassion - directed towards those who share a similar situation to one's own (Nussbaum, 1996). In this sense, global compassion is more widely prosocial than Aristotle's conception, as care is desired and offered towards anyone regardless of one's relationship to them or their background and may include strangers and enemies. In order to develop global compassion, one must recognise that everyone wants to avoid suffering (Frakes, 2010; Neff, 2009). Roeser and Eccles also refer to the possibility of cultivating global compassion: "…a wider scope of perception, empathic concern, intention, and action aimed at the alleviation of the suffering of "all beings"" (2015, p.3). Since it has been found that the KS2 age group (7-11 years) are in the process of expanding their awareness of the situations and needs of others (Denham et al. 2005; Eisenberg, 1983), it seems possible that global compassion can be fostered from middle childhood.

## 4.6. How does compassion develop in childhood?

From early childhood, empathy and basic forms of compassion are already identifiable, which likely lead to later experiences of global compassion from middle to late childhood (Peplak and Malti, 2021). Children's social and cognitive skills are also advancing during this period, enabling them to understand different perspectives and ethical principles which would further support the cultivation of global compassion (Malti and Krettenauer, 2013; Spinrad and Eisenberg, 2017). Adding to this, from middle childhood children become better able to accept the backgrounds and situations of others (Denham et al. 2005) and broaden the group they deem worthy of help when in need (Eisenberg, 1983), likely supporting their exercise of compassion towards strangers or enemies. When considering development strategies in KS2 (7-11 years) that help to move empathy and sympathy on towards compassion, practices that enhance emotional tolerance (or emotion regulation) would likely strengthen the motivation and behavioural components of compassion

(Flook et al. 2015; Schonert-Reichl, 2015), as children learn to be more resilient in the face of empathic distress.

The emotional capacities of empathy, sympathy and compassion are far from the full story of moral emotion. However, as explained above they have been singled out for consideration here due to their suitability for the selected age group (7-11 years). Curzer's (2012) concept of Aristotelian *aidos*: guilt, shame and remorse, also provide great food for thought in how these more negatively valanced emotions play a central role in motivating moral action. Similarly, Jackson (2020) puts forth a wide range of moral concepts that hold emotional relevance (e.g. resilience, vulnerability and mindfulness), which likely also share a part in moral motivation. These other ideations of moral emotion are also worthy of consideration in order to gain a more comprehensive picture of how they may contribute to the cultivation of practical wisdom. Moreover, it would be important to integrate any potential development approaches for moral emotion with educational efforts for practical wisdom's other components (moral perception, moral reasoning and moral identity), in order to fully support the growth of practical wisdom from a young age.

# 5. Development Approaches

Having established a conception of moral emotion, we can now turn our attention to how it may be fostered in the KS2 classroom. So far, the present conceptualisation of moral emotion seems to resonate substantially with metacognition and metaemotion as will be further clarified below. These will be used as a lens through which to identify more specific strategies and variables because they share many parallels with moral emotion (as it is defined here) and because their development in schools has been more widely explored, hopefully providing greater insight into specific intervention strategies for moral emotion. These include: structured thinking activities (STA's); achievement emotions (AE); teacher-student interactions (TSI); mentalising; mindfulness; and professional development (PD). Each one will be considered for its potential efficacy in developing moral emotion as well as how practical they may be for application in schools. A table is provided in the conclusion (figure 1) to provide a summary of approaches that can be taken forwards for further exploration and evaluation.

It should be acknowledged that substantial theory and research has already demonstrated that the arts (music, drama, literature) can foster empathy (and by extension sympathy and compassion) (Kidd and Castano, 2013; Mogro-Wilson and Tredinnick, 2020). Moreover, the effects of the arts, especially music, on their ability to regulate emotion has been widely acknowledged (Sloboda and Juslin, 2001). Whilst the impact of the arts on moral emotion is certainly worthy of further research, the focus here is instead on how improving our awareness of thoughts and emotions can foster moral emotion, as this has not been explicitly explored and may have a broader reach and greater impact. Another important topic for future research is exposure to real life, complex moral situations. This may support the fine tuning of reason with emotion through guided reflection as well as stimulate empathy, giving rise to the cultivation of sympathy and compassion. But since it is yet another research area that does not strictly fall under the lens of metacognition and metaemotion, and also more simply due to insufficient space, it needs to be considered in a separate project.

## 5.1. Metacognition

Metacognition, having awareness of and the ability to manage one's thoughts and mental processes, can be seen as central in the Aristotelian version of moral emotion. The over-arching virtue of practical wisdom requires metacognition in order for emotions to become fused with reason: "…the aim of emotion education is the cultivation of phronesis-guided emotional traits, hence autonomous and critical, and that any efforts at the indoctrination of traits are essentially inimical to that aim" (Kristjánsson, 2018, p.174). In this sense, metacognitive abilities would support the development of intrapersonal and interpersonal awareness, critical reflection and better informed judgements, helping emotions to become moral and in turn leading to moral action. Similarly, this awareness and self-regulation would likely aid in the transformation of the often blind and indiscriminate empathy into a more nuanced and regulated emotion (sympathy or compassion). As such, metacognition seems a fitting lens through which to consider possible development approaches for moral emotion.

Looking more closely at metacognition, it has been defined as a "…second or higher-order thinking process which involves active control over cognitive processes" (Mevarech and Kramarski, 2014, p.36) and can also be recognised under the terms: "self-regulated learning", "thinking skills", and "Learning to Learn" (Perry, Lundie and Golder, 2019). Despite its recent rise in popularity - largely thanks to the pioneering work of John Flavell (1979) - the concept can be traced back as far as Plato, who first mentioned cognising about cognition. Interestingly, Aristotle subsequently wrote

about the psyche's awareness of what we see and hear, which is not surprising considering Aristotle's conception of the virtue of *phronesis* (practical wisdom) as an overarching awareness of the particulars of moral situations that helps to inform our decisions towards moral ends (Kristjánsson, 2019). It is widely accepted that metacognition is comprised of two key parts: metacognitive knowledge (e.g. knowledge of persons, tasks and strategies; Flavell, 1979) and metacognitive regulation (e.g. planning, monitoring and evaluating; Brown, 1987; Schraw and Moshman, 1995).

In his review of metacognition, Georghiades (2004) expands on the reflective component of metacognition, describing it as: "…the critical revisiting of the learning process in the sense of noting important points of the procedures followed, acknowledging mistakes made on the way, identifying relationships and tracing connections between initial understanding and learning outcomes" (p.371). As such, he states that it is not possible to develop metacognitive competences without being critical and judgemental of the self and that this requires a lot of affective support for learners since they will need to feel comfortable with acknowledging their mistakes in order to take responsibility for their learning. This suggests there is a need to integrate emotional regulation alongside metacognition, en route to the development of moral emotion which will be reflected later in the section on metaemotion.

## 5.2. How do children learn metacognition?

For a long time, it was maintained that metacognition does not develop until between 8 and 10 years old (Whitebread et al. 2010). But it has now been widely established that non-conscious metacognition begins in early childhood (Beran et al. 2012; Lyons and Ghetti, 2010; Whitebread et al. 2010). From as young as 3 years old, children can solve complex tasks using specific strategies, but are unable to explain the mental processes they used, suggesting that they already possess some level of metacognition, albeit a less conscious version (Whitebread and Neale, 2020). From 5 years old, children start to become aware of their mental processes; they can describe sophisticated metacognition strategies, such as changing thoughts or goals (Davis et al. 2010). Between 9 and 12 years old, children become more skilled in awareness of their own abilities and control of their thinking processes (Roebers et al. 2009). These rapid changes in metacognition in middle childhood would suggest that interventions may help to stimulate and guide further development at this time.

A significant difference has been identified between the developmental trajectories of two key aspects of metacognition: metacognitive monitoring (awareness of one's knowledge and mental processes) and metacognitive strategic control (applying this knowledge to make decisions and solve problems). Monitoring improves steadily throughout childhood regardless of environmental or social influences, resulting in little individual difference in children of the same age, whereas strategic control has been found to be sensitive to and dependent on the environment and experiences of early childhood (Bryce and Whitebread, 2012). This finding explains why young children's metacognitive knowledge is not predictive of academic success, since the latter requires the application of the knowledge gained from monitoring processes in order to complete tasks and solve problems. This suggests that focusing on helping children to learn metacognitive strategic control may be more fruitful for the purpose of fostering moral emotion.

Generally speaking, metacognition has been predominantly documented as beneficial for academic learning. In their rigorous meta-analysis of research carried out with primary school pupils, Dignath, Buttner and Langfeld (2008) found an average effect size of .69 on pupil outcomes, adding an equivalent of eight months academic progress. Perry, Lundie and Golder (2019) identified that whilst metacognition seems to have the greatest impact on outcomes in mathematics and science,

there is evidence that its benefits span the whole curriculum. Research has also indicated that student confidence can be improved by learning to use metacognition independently (Maclellan, 2014; Stankov, Morony and Lee, 2014) and that this autonomous ability to overcome challenges can also enhance their wellbeing (Waaler et al. 2013). Whilst this sense of motivation and agency comes a little closer to the present focus of metacognition on moral emotion development, there seems to be a complete absence of research exploring a direct link between the two. This needs to be acknowledged and addressed by conducting subsequent evaluative research on the relationship between metacognitive ability and moral emotion.

The question remains what effective metacognitive strategies might look like for the cultivation of moral emotion in KS2 (7-11 years). Even in the more general use of metacognition for academic success, owing to its conceptual complexity there is no agreed typology of metacognitive strategies, but most educators would include helping students to plan, monitor, evaluate and manage their performance as well as supporting the solving of new and challenging problems with tools such as: writing frames (Myhill and Newman, 2016); Mind Maps (Buzan and Buzan, 2000); concept maps (Hay and Kinchin, 2006). Branigan and Donaldson (2020) explored the impact of STA's (Structured Thinking Activities) on metacognition, which include written documentation such as: learning journals; thoughts and feelings books; Pupil View Templates. Usually these activities are accompanied by student-teacher discussion and are considered helpful in the way they create time for intellectual space and reflection on affective aspects of learning and complex problems. Moreover, through this guided reflection, it should be possible to target the development of metacognitive strategic control (application of metacognitive knowledge to solve problems).

STA's have been identified as one of the main ways that teachers try to engage children in metacognition (Branigan, 2019), but little is known about their specific use in the classroom (Branigan and Donaldson, 2020). In their case study of a class of 8 to 9 year old children, Branigan and Donaldson (2020) identified a number of 'do's' and 'don't's' for the effective application of STA's for metacognition. The authors highlighted the way the classroom teacher created a supportive learning environment, already regarded as an important factor in the development of metacognition (Georghiades, 2004) and was in line with the characteristics of such an approach outlined in literature: not directly comparing students; not insisting that students share their lack of understanding; ensuring that students do not become embarrassed or overly frustrated (Robson, 2010). But despite the safe learning environment, students were not motivated to take part in STA's. Students commented that they had to sit in silence and write; they found them tiring and boring. The teacher insisted that they completed them or else do other school work, contrasting the desired empowering nature of metacognition. Timing didn't help either: STA's were left until Friday afternoons when students were tired and felt they should be offered more exciting activities. Possibly the lack of prioritisation of the STA's by the teacher also affected students' attitudes towards them. Upon completion, responses were largely superficial, commenting on the topic of learning and whether they enjoyed it rather than related skills or elements of the thinking process. The nature of the STA prompts could be in part to blame as they may not have been specific enough to elicit more appropriate and detailed answers (Desoete, 2008).To sum up, students need to be earnestly motivated to take part in STA's and their wording should be carefully considered.

What stood out in the case study was the important role the teacher played in developing metacognition (Branigan and Donaldson, 2020). The researchers noted that metacognition was more evident when the teacher used questioning, scaffolding and modelling to help the children learn how to reflect on their thinking. The importance of modelling for metacognition was previously identified by Wall and Hall (2016) who described teachers as having a dual role:

modelling and sufficiently scaffolding metacognition; encouraging and eliciting metacognition through questioning and leaving space for independent reflection. In order to get the right balance between these roles, it is important for teachers to know their students very well, highlighting the socio-cultural and relational factors of metacognition. Scaffolding that is sensitive to the needs of students reflect Vygotsky's Zone of Proximal Development (1978), in which students are given just enough support to enable them to do something that they could not do unassisted. The importance of the teacher-student relationship and differentiated scaffolding has been identified elsewhere; low achievers need more specific support from the teacher whereas high achievers typically develop metacognition more independently (Davidson and Sternberg, 1998; De Jager, Jansen and Reezigt, 2005). This suggests that future programmes for metacognition may benefit from ensuring teachers know their students well enough to effectively differentiate the support they provide for metacognitive development.

Branigan and Donaldson (2020) concluded that STA's in themselves were not sufficient to stimulate metacognition but they acted as a catalyst when paired together with the teacher's interactions. A supportive classroom environment, whilst important, would also not have been sufficient in isolation. Since the sample size of this research is rather small - one class - the findings are not generalisable - however the case study was conducted over a full school year which allowed for depth and breadth in their observations. Therefore it may still be worthwhile taking the suggestions forward into subsequent evaluative research on the use of STA's for metacognition and consequently their use for the development of moral emotion.

Broader and more general advice has been offered for the effective cultivation of metacognition: metacognitive strategies must be embedded across the curriculum; the purpose of their learning must be made clear to students; and the learning process needs to be extended over a long period of time (Veenman and Beishuizen, 2004). In a similar vein, it has been suggested that metacognitive skills can be used before, during, and after learning activities; before - task orientation and planning; during - monitoring, testing, making a diagnosis, repairing; after - evaluation and reflection (De Jager, Jansen and Reezigt, 2005). Then there is the question of group work: whilst this has been found to improve the learning of metacognition, effective group work may be tricky in primary schools as first children need to learn how to work in a group effectively (Perry, Lundie and Golder, 2019). Nonetheless the development of group work in KS2, as widely recognised as valuable to many other areas of learning, can also be promoted in view of supporting the ongoing cultivation of metacognition. Lastly but importantly, a significant difference was found between teachers who have experience and knowledge in metacognition instruction and a control group without such expertise, suggesting that specific teacher training for metacognition is necessary (De Jager, Jansen and Reezigt, 2005).

From the above research into metacognition, several potentially effective moral emotion development strategies can be highlighted. As indicated, whilst STA's are a popular way to try to stimulate metacognition in the classroom, their efficacy is likely reliant on a number of factors, most importantly the strength of the student-teacher relationship. Teachers need to know their students very well in order to provide tailored support and be able to foster a supportive learning environment, reflecting metacognition's malleable component of strategic control. Ideally, teachers should be provided with training to help them understand metacognition and how to use STA's and other metacognitive strategies effectively. It would also likely be beneficial for the whole school to develop a greater awareness of the importance of cultivating metacognition, so that its learning can be prioritised. Whilst the practical implications of this may prove challenging in the face of other competing priorities for schools, if improving moral education with practical wisdom at its heart is

to be taken seriously, steps need to be taken to ensure teachers can develop the knowledge and skills required to foster it in their students.

## 5.3. Metaemotion

Alongside metacognition, metaemotion provides another helpful lens for exploring how moral emotion may develop, as it also shares many parallels with moral emotion as it is conceived here. The term metaemotion (also referred to as meta-affect) was first introduced by Gottman et al. (1996) and has been defined as having emotional reactions about one's emotional self (Mitmansgruber et al. 2009). For the Aristotelian fusion of emotion with reason, one would need to have awareness of one's emotional states, and the ability to manage them effectively in order to bring them in line with reason, based on the details of a situation. Furthermore, through the critical reflection required of this kind of moral emotion, challenging emotions may arise requiring emotion regulation, a key component of metaemotion (Bartsch et al. 2008). As such, findings from evaluative research on metaemotion interventions may indicate some effective approaches for the development of moral emotion.

It should be noted that metaemotional and metacognitive experiences are sometimes combined. For example, metaemotion can be accompanied by metacognition; when losing one's temper, one may then feel sadness about the display of anger (metaemotion) and subsequently reflect on what caused the emotional outburst (metacognition). Moreover, many structural similarities between metaemotion and metacognition have been identified by Norman and Furnes (2014), suggesting strategies that help to foster metacognition may also promote metaemotion.

Both metacognition and metaemotion share knowledge components; metaemotional knowledge is an organised set of thoughts about emotions which can be viewed in parallel with metacognitive knowledge - knowledge about cognitive processes (Norman and Furnes, 2014). Metacognitive knowledge includes: knowledge of self and others; knowledge of task and context (Tarricone, 2011). Likewise, metaemotional knowledge can be subdivided: knowledge of ones' own and others' emotions; knowledge about specific emotions; knowledge about general emotions; knowledge about situational factors that may influence others' emotions. Similarities can be drawn here between this type of knowledge (metacognitive and metaemotional) and the moral perception component of practical wisdom - the ability to discern the interpersonal and environmental particulars of a moral situation that colour our reasoning and emotions (Sherman, 1991). This type of knowledge (or perception) would likely lead to better informed decisions and actions regarding moral situations, and as such can be viewed as a worthwhile development target alongside moral emotion.

Similar to metacognitive strategies that manage cognition, metaemotion also has a regulatory function in its ability to lead to a change in the first-order emotion (Bartsch et al. 2008). As explained by Mendonça (2013), the defining nature of metaemotion is its reflexivity; the way that having an emotion about a first-order emotion can change one's initial emotional experience. For example, when noticing another's suffering, one may experience empathic distress and as a result feel the metaemotions of anxiety and frustration about one's distress. By becoming aware of this emotional experience and learning to regulate one's emotions, it may become possible to transform them into something more constructive, e.g. compassionate action. Koven (2011) proposes that metaemotion enables us "…to pay attention to emotions, discriminate among emotions, verbally label emotions, and regulate emotions" (p. 1256). When viewing moral emotion as emotion fused with reason, the ability to manage one's emotions in this way would also help us to keep track of our emotional experience and balance emotion with reason in a way that is fitting to the situation.

Moreover, if empathy needs to be guided towards an emotional response that is more motivated towards helping another (sympathy or compassion), being able to regulate one's own emotions that may come up in the process would likely improve the chances of acting in a morally favourable way.

## 5.4. How do children learn emotion regulation?

The regulatory function of metaemotion (emotion regulation) is prioritised in exploring how moral emotion can be fostered as it is undergoing major developmental changes in the chosen age group (7-11 years), as demonstrated below. Additionally, the knowledge component of metaemotion is more closely related to practical wisdom's moral perception, which whilst not unimportant, is of less relevance here due to the focus on moral emotion. Therefore the relationship between metaemotion and moral perception would be better explored elsewhere. Emotion regulation (ER) has been defined as the "…ability to inhibit, enhance, maintain, and modulate emotional arousal to accomplish one's goals" (Eisenberg et al. 1997, p.642) and refers to the management of both positive or negative emotions (Schlesier, Roden and Moschner, 2019). Gross (2015) claims that the defining feature of ER is the activation of a goal to influence the emotion trajectory" (p.239). In other words, we need to know why we should want to feel a certain way (relating to the moral identity component of practical wisdom), otherwise we have nothing to aim towards, which should also be held in mind when seeking to support ER development in children.

Before seeking strategies to enhance ER, a brief rehearsal of its normal development is necessary. In infancy, children are unable to independently regulate their emotions and depend entirely on interpersonal regulation; caregivers help to serve the infants' motives by responding with fitting coping actions. Between 1 and 4 years old, children become increasingly able to use self-initiated distraction strategies such as playing with a toy when their needs cannot be immediately met. Between ages 3 and 6, children begin reducing the support of their caregivers and become more independent in their ER; they start to develop intrapersonal ER. They become more self-aware; the self-evaluating emotions of pride, shame and guilt help children to conform to social norms and rules. Additionally, they start to understand the importance of their motives and how to prioritise them, and they can delay and even suppress their gratification. From around age 6 onwards, intrapersonal ER becomes more internalised. For example, physical and verbal outputs become mental expressions: a smile becomes an inner smile; audible speech becomes inner speech. Children also develop the ability to imagine how they would feel in certain situations (Holodynski and Friedlmeier, 2006). From a neuroscientific perspective, ER requires maturation in the prefrontal cortex, the area of the brain responsible for inhibition, which takes place in early childhood and continues until adolescence (Sabatier et al. 2017). Middle childhood is a particularly transformative period; children advance from earlier strategies such as distraction and relying on support from caregivers to more sophisticated strategies such as problem solving and cognitive reappraisal (Band and Weisz, 1988; Thompson and Meyer, 2007). This suggests that KS2 (7-11 years) may be a sensitive period of development that would benefit from ER interventions.

In a comprehensive and systematic review of emotion regulation (ER) interventions in primary schools (published during a peak period between 2011 and 2016), Schlesier, Roden and Moschner (2019) pinpointed several ER strategies for further evaluative research. The popular theory of social-information-processing (SIP) (Crick and Dodge, 1996) has given rise to intervention strategies and incorporates a range of cognitive strategies: encoding, interpretation, mental representation of environmental cues, goal clarification or selection, response access or construction, response decision and behavioural enactment (Smith et al. 2014). Based on SIP, Tools

for Getting Along (TFGA) takes a structured approach by learning, rehearsing, reviewing and practising a series of steps to solve problems (Daunic et al. 2012) as well as incorporating modelling of behaviours by the teacher through direct teaching as well as by role play from students. A further SIP based programme, Making Choices (MC) (Fraser et al. 2005), includes recognition of one's own feelings and the feelings of others (Terzian et al. 2015). An additional approach, Social Emotional Learning (SEL) (Cook et al. 2015) is a world renowned ER strategy that helps children to cultivate skills such as: social competence, self-regulation, emotions management, empathy and interpersonal problem solving (Cook et al. 2015; Zins et al. 2004). Possibly complementary to child-focused SEL strategies, Positive Behavioural Interventions and Support (PBIS), a teacher-focused ER intervention, focuses on the use of extrinsic rules and positive gains (Schlesier, Roden and Moschner, 2019).

In their review of the research, Schlesier, Roden and Moschner (2019) identified that achievement emotions (AE) are a key variable of ER. AE can be both negative and positive (e.g. boredom and enjoyment), they can refer to past, present and future learning experiences, and can be focused on a range of academic activities. However, the authors could not locate any previous research into the implications of AE on ER. Unsurprisingly, Schlesier, Roden and Moschner (2019) found a negative correlation between boredom and anger ER, as well as the avoidance of coping mechanisms. Also, they identified a negative relationship between boredom and palliative ER i.e. bored students are less able to tolerate and manage their own negative emotions (Vierhaus, Lohaus and Wild, 2016). Conversely, a positive and stable relationship between the AE of enjoyment (in school lessons) and ER (Vierhaus, Lohaus and Wild, 2016) was found, specifically regarding a preference for problem solving and palliative ER in the face of academic related stress. Kwon, Hanrahan and Kupzyk (2016) found that enjoyment of learning has a positive correlation between exuberance, sadness and anger ER, whereas Vierhaus, Lohaus and Wild (2016) identified a negative link between enjoyment of learning and anger ER. But Kwon, Hanrahan and Kupzyk (2016) were not able to identify ER development in the long-term. Additional AE related hurdles for students' learning of ER have been identified: relationships with friends and peers, managing screen time and academic pressure (Petrovic et al. 2022). Whilst it seems clear there is a relationship between AE and ER which may prove interesting for how to develop moral emotion, further research is required to establish more specifically how AE contribute to the regulatory function of metaemotion in children.

Research has evidenced a link between teacher-student interactions (TSI) and self-regulation (e.g. Birch and Ladd, 1998; Wilson et al. 2007) and a few studies have been able to demonstrate a relationship between TSI and ER. Hirvonen et al. (2015) found that teachers show more positive affect towards students who show less impulsive behaviour, suggesting that teachers need to have more awareness of how students' levels of impulsive behaviour effect their attitudes and actions towards them and adjust accordingly. Merritt et al. (2012) found a positive correlation between emotional support and behavioural self-control. All results in the meta-analysis (Schlesier, Roden and Moschner, 2019) showed that TSI is important for ER development (similar to findings Branigan and Donaldson's (2020) case study on metacognition). But it should also be remembered that there is a fair chance that students with poor ER attract negative attention from teachers. Ultimately, this relationship needs to be brought to the attention of teachers through training so that ER can be fostered with care.

In sum, Schlesier, Roden and Moschner (2019) identified a few potentially effective intervention programmes for the development of ER in primary schools. *Tools for Getting Along* (TFGA) greatly improved problem-solving and also enhanced behavioural regulation, proactive aggression and rational problem solving (Daunic et al. 2012). But after one year in a follow-up study (Smith et al.

2014) no positive findings were reported for problem solving knowledge, proactive aggression, and rational problem solving, and even negative effects of TFGA on behaviour regulation were found, therefore further research is required to establish whether extensions of the programme would improve the long-term gains. Furthermore, in many of the ER intervention studies reviewed by Schlesier, Roden and Moschner (2019), only performance outcomes were measured, rather than ER specific outcomes, so it remains vague what impact these interventions are actually having on ER development.

Whilst the efficacy of specific programmes with theoretical underpinnings have been developed to foster ER in schools, so far evaluative research has been unable to successfully demonstrate their efficacy and more than anything, Schlesier, Roden and Moschner's (2019) review identified gaps in the ER intervention research. However, what has been established is a link between achievement emotions (AE) and ER, suggesting that children's general enjoyment and performance at school can help them to manage their emotions. Additionally, the importance of the student-teacher relationship (or teacher-student interactions, TSI), as with metacognition, is also key in helping children to develop ER, but that teachers need better training to ensure that students with poor ER receive appropriate support. These indications will be further reflected upon below.

Professional development is an additional focus for supporting the cultivation of ER in children. In a survey of teachers, Petrovic et al. (2022) found that they are enthusiastic about helping students to learn ER but are limited by misconceptions on effective strategies. For example, teachers favoured telling students to "take a deep breath" without sufficient understanding of how breathing techniques can support ER. Furthermore, the researchers classified this as an unhealthy strategy as it has not been documented as an effective way of regulating emotions and may also come across as dismissive. Interestingly, meditation was highly endorsed by teachers as an effective ER strategy, as reflected in findings on mindfulness interventions on ER (Flook et al. 2015; Schonert-Reichl, 2015), but very few reported using it in the classroom. The authors concluded that a lack of knowledge and expertise on effective ER strategies led teachers to use more accessible but less effective methods, highlighting the need for improved teacher training. A study by Kim et al. (2021) suggested that teachers who are trained properly in ER can also improve their own self-efficacy, self-care and sense of agency, which would likely further improve their classroom practice. Ultimately, because teachers spend so much time with their students, they are in the best position to develop trusting relationships with them. Therefore classroom teachers who receive sufficient ER training may have more impact and be more cost-effective than bringing in external programmes from unfamiliar outside instructors.[1]

## 5.5. Mentalising

A further approach for moral emotion's development may lie in the construct of mentalising. Comprised of both metacognitive and metaemotional elements, mentalising is the ability to read and reflect on one's own and others' thoughts and feelings, so as to better understand and interpret human behaviours. Mentalising has also been referred to as "holding mind in mind" and "attending to states of mind in oneself and others" (Allen and Fonagy, 2006, p.328). It includes both cognitive components (Theory of Mind and metacognition) and affective components (attachment relationships and emotion management, including ER) (Greenberg et al. 2017). A large study

[1] At this stage in the review it is clear that professional development is a central and potentially highly effective approach for cultivating moral emotion that requires in depth exploration elsewhere. Especially when viewing the concept of moral emotion through the lens of metacognition and metaemotion, it should be considered to what extent teachers would need to understand the theory of these constructs and how they can be guided to apply metacognitive and metaemotional strategies effectively in their classrooms.

showed that ER was predicted by mentalising, independent of demographic variables (Schwarzer et al. 2022). Furthermore, Greenberg et al. (2017) argued that mentalising helps children to understand their emotions and reflect on how to regulate them. Since it is plausible that metacognition and ER may support the development of moral emotion, it seems likely that improvements in mentalising would do the same.

An intervention study by Valle et al. (2016) showed that training teachers in the Thoughts in Mind Project (TiM Project) could enhance children's mentalising ability. Lombardi et al. (2022) evaluated the impact of TiM-Child (TiM-C) on children's ER, metacognition and Theory of Mind. TiM-C is a conversational training for school children that involves children in conversations about objects of mind such as desires, beliefs and social situations, within the school context. Children ages 7-8 years old took part in group conversations about mental states, which encouraged them to elaborate on their comments and justify their responses, enhancing their awareness of different viewpoints. This structure was previously proven successful in other studies (Bianco et al. 2019, 2021; Lecce et al. 2014; Lombardi et al. 2021). The training aims to help students improve their metacognition by supporting them to reflect on how the mind works in stress free situations and offers both cognitive and metacognitive tools to help them regulate their thoughts when experiencing stress.

The results showed significant improvement in metacognition; through conversation and reflection on their thoughts and emotions, children became more aware of themselves as individuals with their own minds and how others may see things differently. ER strategies were also enhanced; by using stories and activities that help children to reflect on emotions and what happens in the mind when experiencing an emotion, children were encouraged to apply metacognitive skills to help them manage their emotions in ways that are considered positive. Moreover, the TiM-C includes conversation on emotions with the whole class, so children also have the chance to learn from each other by listening to their peers' affective experiences and sharing strategies on how to regulate emotion. The findings of this study are limited due to a small sample size and lack of long-term follow up, but they hold promise that a structured, conversational approach may help to enhance both metacognition and ER. Fortunately TiM-C is easy to implement in schools therefore providing a straightforward way to further investigate its efficacy on the development of moral emotion.

## 5.6. Mindfulness

An additional and persuasive approach for the development of moral emotion lies in the practice of mindfulness: "…paying attention, on purpose, in the present moment, non-judgmentally" Kabat-Zinn, 1994, p.2). Evaluative research has shown that mindfulness can support metacognition and ER (Zoogman et al. 2014; Zenner, Herrnleben-Kurz and Walach, 2014). Brain imaging research (in adults) has demonstrated that practising mindfulness increases executive functioning (EF) which underlies cognitive capacities such as attention control, inhibition and perspective taking; all are linked to ER (Hölzel et al. 2011; Tang et al. 2012). The apparent influence of mindfulness on these top down cognitive control processes (e.g. attention and perspective taking) paired with its ability to reduce or balance bottom up affective processes (e.g. automatic arousal; Zelazo and Lyons, 2012) indicates the potential for mindfulness to impact on both metacognitive capacities and ER.

Research on the impact of mindfulness on children and adolescents is relatively sparse, but initial studies suggest that it improves wellbeing (Zenner, Herrnleben-Kurz and Walach, 2014; Zoogman et al. 2014), including metacognitive and ER outcomes. Two studies that looked at the impact of mindfulness on metacognition in children (Flook et al. 2010; Weijer-Bergsma et al. 2012) both identified a positive impact. Despite the inclusion of metacognition and emotional wellbeing themes in UK education policy and curricula (DfE, 2011), there is a lack of evidence based school

programmes that directly aim to develop metacognition in primary schools and it has been suggested that mindfulness programmes could be very helpful in filling this gap (Vickory and Dorjee, 2016). In a study of 71 children ages 8-9 years old (33 training group; 38 control group), classroom teachers were trained to deliver an 8-week mindfulness based programme (paws.b) in order to examine its impact on students' metacognition and ER (Vickery and Dorjee, 2016). Teachers reported improvements in metacognition at follow-up with a large effect size. This was significant since participants received only a modest 'dosage' of mindfulness, it was the first time teachers had delivered a mindfulness training and children had no previous experience of the practice. However the study is limited due to non-blind teacher reports so further research is needed to validate the findings. If it can be evidenced that teachers can be trained to pass on mindfulness to their students, this could be a cost-effective and sustainable approach as it supports the needs of a busy school life and can lead to ongoing wellbeing.

Mindfulness training may more directly promote moral emotion; studies have shown that it can support ER (Davidson et al. 2012; Teper, Segal and Inzlicht, 2013; Zelazo and Lyons, 2012), which is likely central in the development of sympathy and compassion (Eisenberg et al. 2006; Goetz et al. 2010). In an intervention study with pre-school children (3-5 years), Flook et al. (2015) characterise mindfulness as a set of practices that include response inhibition and mental flexibility which may prevent children from becoming overwhelmed by empathic distress and lead them to act with compassion (Eisenberg, Spinrad and Knafo-Noam, 2015). In a study with upper elementary children (9-12 years) Schonert-Reichl et al. (2015) refer to mindfulness in a similar way: as a set of skills that help children to focus on present moment thoughts, feelings and sensations in an emotionally non-reactive way. Both Flook et al. (2015) and Schonert-Reichl (2015) show promise that effective mindfulness interventions for children exist and may support the cultivation of self-regulation and prosocial dispositions including compassion in early and middle childhood. Since mindfulness and related practices such as loving-kindness meditation aim to enhance the capacity to offer compassion to a wider group of people (Roeser and Eccles, 2015; Hofmann, Grossman and Hinton, 2011), it is possible that mindfulness may also support the development of global compassion from middle childhood.

As it has been shown, the efficacy of specific ER interventions has not been sufficiently evidenced, but the review of the research (Schlesier, Roden and Moschner, 2019) does indicate some promising avenues that are worthy of further evaluation: achievement emotions; teacher-student interactions; and professional development. In addition, existing research indicates that mentalising and mindfulness practices support the cultivation of both metacognition and ER in childhood (Flook et al. 2015; Schonert-Reichl et al. 2015), highlighting these as valuable development approaches for moral emotion.

# 6. Conclusion

## 6.1. Review summary

In this dissertation, moral emotion has been conceptualised philosophically as emotion fused with reason, together with the psychological emotional capacities of empathy, sympathy, and perhaps most importantly, compassion (Bloom, 2016): all of these elements seem plausibly malleable within KS2 (Curzer, 2012; Hoffman, 2000; Malti et al. 2009; Peplak and Malti, 2021). Subsequently, metacognition and metaemotion were selected as lenses through which to view the development of moral emotion since they support the critical and reflective abilities required to blend emotion with reason and also help empathy and sympathy to mature towards the more strongly prosocial emotion of compassion. As a result, a number of potentially effective approaches have been identified. More than anything, it seems that the relationship between teacher and student is key for cultivating moral emotion. Indeed, Aristotle held that children's moral development is guided by morally wise elders (Sherman, 1991), matching the emphasis on the role of the teacher in the findings.

When considering specific practices, mindfulness stands out due to its ability to enhance both metacognition and metaemotion. Mentalising also holds promise in this regard. However, due to the challenging nature of considering moral emotion in a relatively complex and theoretical manner, professional development has also been emphasised as necessary for cultivating moral emotion. This raises many practical questions of how schools would be able to provide training for teachers to be able to sufficiently and effectively understand and use metacognitive and metaemotional approaches in the classroom. Fortunately, since metacognition and ER are already viewed as valuable abilities for students to learn from a young age (Dignath, Buttner and Langfeld, 2008; Schlesier, Roden and Moschner, 2019), hopefully this review in the name of moral emotion adds further support to improving how they are fostered in the classroom.

The table included below gives a summary of moral emotion's development approaches as indicated in the findings, together with their potential efficacy and practicality. Hopefully these suggestions can offer inspiration to how teachers and school leaders can explore supporting moral emotion in their schools and also provide a strong basis for further research into moral emotion and practical wisdom.

## 6.2. Moral emotion development approaches

| Development approach | Potential efficacy | Practicality |
|---|---|---|
| **Structured thinking activities (STA's)**<br>*E.g. Learning journals; thoughts and feelings books; pupil view templates*<br>Construct target: metacognition | ▸ STA's offer a dedicated opportunity for reflection on cognition and affect.<br>▸ They may provide an effective tool when paired with scaffolding, modelling and questioning from the teacher to help students to elicit responses relevant to metacognition (Branigan and Donaldson, 2020). | ▸ STA's can be delivered by the classroom teacher and scheduled as a regular activity in the timetable.<br>▸ Some training is likely required to make sure teachers can create suitable STA's with sufficient knowledge of how to deliver them effectively to develop metacognition. |

| Development approach | Potential efficacy | Practicality |
|---|---|---|
| **Achievement emotions (AE)**<br>*Negative and positive emotions that are related to academic learning*<br>Construct target: ER | ▸ Bored students are less able to regulate their anger and other negative emotions (Schlesier, Roden and Moschner, 2019).<br>▸ Students that enjoy learning are better able to solve problems and manage academic related stress (Vierhaus, Lohaus and Wild, 2016).<br>▸ Current research is inconclusive on the specific effects of AE on ER. | ▸ Improving AE would be highly practical and cost-effective as most teachers are already focused on ensuring their students have positive learning experiences. |
| **Teacher-student interactions (TSI)**<br>*Teachers' knowledge of their students' needs and how this is used to inform supportive teacher-student relationships*<br>Construct target: metacognition and ER | ▸ A safe learning environment supports both metacognition (Branigan and Donaldson, 2020) and ER (Merritt et al. 2012).<br>▸ Teachers interact more positively with students who show less impulsive behaviour (Hirvonen et al. 2015), suggesting that there is a need for teachers to improve their awareness of students' ER abilities. | ▸ Helping teachers to improve their relationships with students would likely be a popular and relatively straightforward endeavour, especially since it would likely also improve AE and other important related variables. |
| **Mentalising**<br>*The ability to read and reflect on one's own and others' thoughts and feelings, so as to better understand and interpret human behaviours*<br>Construct target: metacognition and ER | ▸ TiM-C improves children's metacognition and ER (Lombardi et al. 2022).<br>▸ Due to a small sample size and lack of follow up further research is needed to validate the findings. | ▸ Mentalising would require specific training for teachers which could be expensive but based on the findings, would be worthwhile.<br>▸ TiM-C is a conversational training takes place in the classroom environment and makes use of the whole class dynamic by encouraging peer learning. |
| **Mindfulness**<br>*Paying attention to the present moment, on purpose and without judgement*<br>Construct target: metacognition and ER | ▸ Mindfulness has been demonstrated as beneficial for metacognition in children (Flook et al. 2010; Weijer-Bergsma et al. 2012).<br>▸ It also supports the development of ER (Davidson et al. 2012; Teper, Segal and Inzlicht, 2013; Zelazo and Lyons, 2012). | ▸ Mindfulness training for children could be provided by external specialists but delivery by classroom teachers would likely be more practical and cost-effective.<br>▸ Specific teacher training and a committed independent practice would be required, thus creating substantial challenge for student mindfulness. Yet based on current research heading in this direction may be highly beneficial. |

| Development approach | Potential efficacy | Practicality |
|---|---|---|
| **Professional development (PD)**<br>*Ensuring ITT (initial teacher training) and CPD (continuing professional development) helps teachers to develop knowledge and skills for cultivating moral emotion*<br>Construct target: metacognition and ER | ▸ Research on all of the above approaches has indicated that they require some degree of professional development to ensure teachers can cultivate metacognition and ER effectively in their classrooms.<br>▸ Teachers are enthusiastic to help their students develop ER, but guidance is needed to ensure that ER strategies are used appropriately and safely (Petrovic et al. 2022). | ▸ PD may be time consuming and expensive, but if the development of moral education with a focus on practical wisdom is to be taken seriously, it would very likely be a worthwhile investment. |

## 6.3. Reflection on findings

Despite an already jam-packed agenda for the professional development of teachers (DfE, 2016), when reflecting on what is important in education today to equip children for a complex and challenging future (Brooks, 2022; Harrison, Morris and Ryan, 2016), it can be argued that nothing is more important than helping children to become morally wise adults who can discern what matters in complicated moral situations, make difficult decisions and enact virtues towards societal flourishing. In other words, moral education with practical wisdom at its heart should be given far greater priority in teacher training. Of course the realities of making this happen are far from easy but it is hoped that research such as the present review can act as steps towards helping policy makers, headteachers and other professionals to find ways to improve provision for moral education in professional development. Specifically, teachers should be helped to develop an understanding of metacognition and metaemotion and how these play a role in supporting moral emotion (and practical wisdom's) cultivation. Based on the findings above, training could include workshops that help teachers to improve their delivery of STA's, enhance TSI and continue to do their best to support AE. As indicated by Petrovic et al. (2022), specialised training would be required to enable teachers to sufficiently learn ER strategies such as mindfulness, in order for them to be effectively passed on to their students.

It may be helpful to highlight how KS2 teachers can already begin to improve the moral emotion of their students. Time and support allowing, teachers can find ways to improve their use of scaffolding, modelling and questioning to enhance the use of writing activities (e.g. STA's) that aim to develop metacognition. It would also be beneficial for teachers to reflect on their relationships with students and how their interactions with them may support or be detrimental to how they regulate emotions. Since there seems to be a correlation between AE and ER, teachers should feel reassured that they are already on the way to helping their students manage their emotions - and by extension develop moral emotion - by continuing to do their best to ensure that students have a positive experience at school. Within their capacity as professionals, teachers should feel empowered and backed by current research to push for sufficient and effective training on practices such as mindfulness and mentalising to help them support their students' metacognition and ER in an informed and skilled manner.

In general, a road map of how to cultivate practical wisdom in childhood is as of yet far from well defined. Even for practical wisdom in adults, little is known about how it can be deliberately fostered. This review hopefully provides some well considered practical approaches for how to develop moral emotion - an important component of practical wisdom - in the targeted KS2 age group. Moreover, it is hoped that the well researched and understood constructs of metacognition and metaemotion offer an innovative way of tackling moral emotion's development, instead of relying on other (potentially less direct) approaches (e.g. the arts). Additionally, metacognition and ER likely also impact on the other key components of practical wisdom: moral perception (through metacognitive knowledge and metaemotional knowledge, also impacting on PMC - Grossman et al. 2020); moral reasoning (through metacognitive strategic control); moral identity (awareness and regulation of one's in-built sense of morality and through ER's goal activation - Gross, 2015), helping to support the development of practical wisdom as a whole.

Hopefully this paper has demonstrated how it is possible to cultivate an important component of practical wisdom - moral emotion - through a range of approaches that whilst requiring considerable professional development for teachers, are not out of reach. Looking ahead, there are a number of research areas that would help to further our understanding of how to develop moral emotion in childhood. For example, moral emotion could be explored as a broader construct to include other relevant emotions e.g. joy, shame, guilt. In the same vein, wider consideration of how moral emotion develops (e.g. real life experience; exposure to suffering; the arts) may offer a comprehensive view of effective development strategies. Evaluative research that looks at how the above highlighted approaches (e.g. mindfulness) may impact on the cultivation of moral emotion may help to build a picture of how practical wisdom can be fostered in childhood, thus further undermining the assumption that practical wisdom development does not take off until adolescence. Specifically, examining the relationship between professional development and moral emotion would likely be extremely valuable. Overall, it is hoped that this review, together with other research efforts in the field of moral education, can help pave the way for the cultivation of practical wisdom in schools, towards human flourishing.

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