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Overcoming Denial: The Role of Troubling Emotions in Failures to Meet Global Challenges and How Character Education Can Help

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The term *denial* covers a range of phenomena of knowing or having reason to believe something but acting as if one does not know it. These include repressing and disavowing knowledge, having sufficient evidence of uncomfortable facts but ignoring it, acknowledging that one knows but acting as if one does not know, directing one's attention elsewhere, and rationalizing one's failure to act appropriately. Stanley Cohen made a systematic sociological study of these phenomena, arguing that denial is not simply an individual psychological, self-protective response to *troubling emotions*, such as feelings of helplessness, fear, and guilt, but a repertoire of collective social processes and norms that regulate the boundaries of acceptable *conversation*, focus of *attention* (i.e., what people notice, focus on, and think about), and expression of *emotions* (Cohen, 2001). Psychologists similarly hold that emotional *self*-regulation is developmentally rooted in the internalization of soothing responses to distress provided by caregivers during infancy (Ryan, Deci, Grolnick, and La Guardia, 2006), but that the same strategies of emotion regulation that individuals use to self-regulate may continue to play roles in collective and external regulation of individuals' emotions (Gross, 2024). Emotion regulation can be more or less functional or dysfunctional with respect to mental health, achievement of goals, and acting appropriately. From an ethical standpoint, the term "denial" signifies failures to grasp and respond to situations appropriately, hence (often, if not always) failures of intellectual

and moral virtue. Denial embodies patterns of *emotion regulation* that are at odds with intellectual and moral virtue.

From the standpoint of meeting global challenges, denial is a widely recognized barrier to progress – a form of emotion regulation that paralyzes individuals just as they learn how important it is to act. It is consequently a phenomenon that character education should address as one aspect of meaningful response to global challenges. Our aim is to lay some groundwork for how character education can do this. We will begin with an introduction to the significance of denial as a barrier to progress in meeting global challenges. Next, we will compare the task of overcoming denial with Aristotelian habituation to promote courage, arguing that education that promotes virtue-enhancing emotion regulation must be integrated into subject matter learning that addresses global challenges. We will then introduce the influential *process model* of emotion regulation and the regulative strategies it distinguishes – altering the situation one is in, redirecting one's attention, reappraising the situation, and modulating the outward expression of the emotion one experiences. This is helpful to cataloguing the strategies of emotion regulation that may be involved in denial, but less helpful to understanding how management of perturbing emotions can be compatible with virtue. For the latter, we turn to research on *integrative emotion regulation*, explaining its compatibility with good character and important role in the acquisition of coherent values. We then close with some thoughts on the pedagogical promotion of integrative emotion regulation.

Denial and Global Challenges

Denial has been identified as playing a key role in mediating failures to address global challenges, such as the climate crisis (Norgaard, 2011; Bardon, 2020) and hazards of General Artificial Intelligence (GAI) (Suleyman & Bhaskar, 2023), even among those who have enough knowledge to be justifiably concerned. Kari Marie Norgaard's 2011 book, *Living in Denial: Climate Change, Emotions, and Everyday Life*, presents a detailed ethnographic analysis of the ways in which norms of conversation, attention, and expression of emotion present in the conversational spaces of a Norwegian village have steered people away from meaningful thought, conversation, and action in response to the loss of snow and ice on which their way of life is predicated. She identifies a cultural norm of optimism as one element of this dysfunctional pattern, and Suleyman and Bhaskar write similarly of "*pessimism aversion"* or the tendency of "people, particularly elites, to ignore, downplay, or reject narratives they see as overly negative. A variant of optimism bias, it colors much of the debate around the future, especially in technology circles" (2023: viii).

Suleyman recounts a presentation he attended at a technology risk seminar before the COVID-19 pandemic, in which a speaker outlined the risks associated with inexpensive DNA synthesizers that could be used by anyone with graduate-level knowledge of biology to create synthetic pathogens with the potential "to kill a billion people" (Suleyman & Bhaskar, 2023: 13). "No one [in the audience] wanted to believe this was possible," he writes (13). "No one wanted to confront the implications of the hard facts and cold probabilities they'd heard," and "the presentation gnawed at me for months afterward" (13):

> Why wasn't I, why weren't we all, taking it more seriously? Why do some get snarky and accuse people who raise these questions of catastrophizing or of "overlooking the amazing good" of technology? This widespread emotional reaction I was observing is something I have come to call the pessimism-aversion trap: the misguided analysis that arises when you are overwhelmed by a fear of confronting potentially dark realities, and the resulting tendency to look the other way. . . . It's almost an innate physiological response. (13-14)

What Suleyman is describing is a form of denial triggered by troubling emotions, and he sees it as both common and an obstacle to urgently needed regulatory *containment* of the destructive potential of synthetic biology, AI, and other powerful technologies.

Accusing people who are concerned about the climate crisis of "overlooking the amazing good" brought about through the use of fossil fuels is similarly misguided. Visiting the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania in November 2024, I toured its Fossil Fuels Café and viewed exhibits celebrating the coal and petroleum deposits that have been foundational to the city's industrial wealth. In doing this, I experienced all of the mixed feelings appropriate to a former resident of Pittsburgh and doctoral student beneficiary of the philanthropic generosity of Andrew Carnegie and Andrew Mellon – mixed, because what fossil fuels have built, they are also destroying. It is, of course, because we so value the opportunities created through the use of fossil fuels that we must face with clear eyed realism the prospect of these opportunities being destroyed by unrestricted further reliance on fossil fuels. [Exiting the café, a sign reads without a hint of irony: "Protect our collections. NO FOOD OR DRINK IN THE GALLERIES. Please eat in the Fossil Fuels Café.]

We are all entangled in this – in the reality that we need to believe in a world of opportunity for all but are collectively living in ways that are diminishing opportunities to live well in the future. It is no more than ordinary virtue to recognize this truth and work together to overcome it. So, I was disappointed to see that the Carnegie Museum's Arctic life exhibit has not been updated since the 1970s. Its visually stunning polar bear is accompanied by a map of the Arctic Ocean, bounded by Canada, Greenland, and *the USSR*, bearing the label "Permanent Pack Ice." Arctic ice is, sadly, no longer "permanent." Only about 5% of what remains is old ice, and in March 2021, at that year's winter ice pack maximum "only a small strip of very old ice remained tucked up against the islands of the Canadian Arctic" (Lindsay & Scott, 2022). Meanwhile, the cost of wildfire destruction in the U.S. from 2017 to 2021 was *eighty billion dollars*, a tenfold increase from the previous five years (Kormann, 2023), human exposure to dangerously hot days has increased by *six weeks* annually on average owing to climate heating (Carrington, 2024), and fossil fuel emissions across the globe are still rising.

Denial has also been identified, at least implicitly, as playing a central role in the consolidation and abuse of authoritarian power. Boston College historian Heather Cox Richardson's depiction of this is worth quoting at length:

> Authoritarians rise when economic, social, political, or religious change makes members of a formerly powerful group feel as if they have been left behind. Their frustration makes them vulnerable to leaders who promise to make them dominant again. A strongman downplays the real conditions that have created their problems and tells them that the only reason they have been dispossessed is that enemies have cheated them of power.

> As a strongman becomes more and more destructive, followers' loyalty only increases. Having begun to treat their perceived enemies badly, *they need to believe their victims deserve it*. Turning against the leader who inspired such behavior would mean admitting they had been wrong and that they, not their enemies, are evil. This, they cannot do.
>
> . . . Those studying the rise of authoritarianism after World War II believed these patterns were universal (xvi-xvii; italics added for emphasis).

Richardson does not use the word "denial" to describe this pattern by which complicity in treating perceived enemies badly – in violations of rights, infliction of suffering, and commission of atrocities – induces people to believe that their victims deserve it, but it is a paradigm of denial as Cohen defines it.

Nothing is more essential to addressing global challenges than: (1) a widespread clear-eyed grasp of the nature of these challenges and possible solutions; (2) a disposition to pursue global cooperative solutions through democratic means. The important question for character education is how it can contribute. Where can character education fit into the wider education that would be helpful? Cultivating virtues of civic cooperation is clearly essential (Curren, 2023), but our present concern is the promotion of emotion regulation that is compatible with the exercise of intellectual virtue in facing global challenges.

Habituation, Emotion, and Intellectual Virtue

Plato and Aristotle believed education must address the perturbing emotions that distort people's perceptions of situations, blind them to what they know, and corrupt their judgment. It must habituate people to the situations that engender these emotions *as they engage in the related acts they must perform well*, to develop their capacity to act appropriately and not be derailed. The paradigm for this in Plato and Aristotle's world was the promotion of soldiers' courage in battle through practice in fulfilling their responsibilities in the face of danger, so that soldiers who know they should stand their ground do not lose sight of this and find themselves fleeing. The ideal outcome of this habituation would be a taming of fear that *safeguards* intellectual virtues of perception, knowledge, and judgment and related dispositions to act appropriately. If we consider fear in contemporary terms as a quasi-perceptual felt evaluation of an object and related action tendency (Tappolet, 2020, 2023) – e.g., a felt evaluation of an assault on one's position as unstoppable and a related tendency to flee – then the ideal outcome of habituation in courage would be for the resulting fear responses to embody evaluations and action tendencies that align with what is rationally and ethically warranted. In Aristotelian terms, the courage produced by proper habituation would facilitate accurate evaluations of dangers and ethically appropriate actions, avoiding both reckless insensitivity to danger and excessive sensitivity to danger.

Fear is one of the troubling emotions that plays a role in the phenomenon of denial, but denial typically occurs in response to troubling information rather than danger present in one's immediate environment. Courage in processing and responding to troubling information might be one aspect of what is needed as a safeguard against denial, but fear is not the only relevant

emotion and courage is not the only related virtue. It is also worth noting that current conceptualizations of *intellectual courage* are typically not wide enough to address the phenomenon of denial. We agree with Jason Baehr that, "We need intellectual courage when fear threatens to interfere with our efforts to learn or to believe what is true" (Baehr, 2021, p. 48), but Baehr's account of intellectual courage limits its scope to contexts in which a person judges or believes that the intellectual *activity* in which they engage is dangerous (Baehr, 2011, p. 170). Yet the contexts in which fear and other troubling emotions interfere with students' efforts to learn and believe what is true are rarely ones in which the *activities* of learning are dangerous. Rather, they are ones in which the *content* of what is learned presents students with disturbing facts about their world – such as facts about climate destabilization, risks of weaponized AI, civic polarization, and other systemic hazards for which there are presently no collective solutions. These are undeniably hazards that should evoke fear, among other emotions, but it is essential to collective progress in mitigating these hazards that the regulation of fear "hit the mean" – inviting neither reckless disregard for the importance of mitigation, nor escapist flight from doing one's part.

The term *intellectual courage* might be extended to cover the ways in which fear and related emotions trigger denial, interfering with students' efforts to learn or believe what is true about global challenges, but we need more than a name for the aspect of good character that preserves accurate perception, knowledge, and judgment in the face of these emotions. We need to understand how character education can *address* denial as a dysfunctional form of emotion regulation.

One starting point for what is needed is the premise that character education should address denial as a dysfunctional form of emotion regulation *in the very curricular contexts that*

are likely to evoke the relevant emotions, just as Aristotelian habituation would. Aristotelian habituation involves habituating people to the situations that engender the troubling emotions *as they engage in the related acts they must perform well*, to develop their capacity to act appropriately and not be derailed. Character education to strengthen response to global challenges should accordingly occur across the curriculum, as students engage in learning about the unsolved problems and potential solutions that are shaping the world in which they live. Educators – all of us, in fact – surely owe rising generations the truth about these matters and the wherewithal to address them more adequately than their elders have.

For this kind of infusion of character education across the curriculum to work, it will be essential to create a toolkit of pedagogical maneuvers for fostering emotional regulation that is consistent with intellectual virtue and can be adopted by diverse educators with little or no background in SEL. It will also be essential for educators to recognize when norms of conversation, attention, and expression of emotions within their classrooms and schools encourage denial, and to collectively establish norms that are more consistent with fostering intellectual virtues when this is the case. Our working hypothesis is that the pedagogical elements would heavily overlap with ones that are already familiar to may teachers at different levels and across different subjects as aspects of autonomy-supportive instruction that sustains students' intrinsic motivation and deep learning.

A related starting point for the required character education is contemporary psychological research on different emotion regulation strategies and their outcomes. We argue that a lesson of this research is that character education will need to promote *integrative emotion regulation*, which is consistent with intellectual virtue, rather than more familiar forms of emotion regulation (e.g., redirecting attention away from the troubling stimulus, reappraisal of

the situation, and suppressing the expression of negative emotions), which are often inconsistent with virtue.

Regulative Strategies of the Process Model

With better psychological understanding of denial, virtue, and their relationships to emotion regulation, it may be possible to make character education more effective in nurturing patterns of emotion regulation (ER) that are consistent with ethically appropriate responses to global challenges. In this vein, we argue that a fundamental task for character education in an age of global challenges is to nurture *integrative emotion regulation* (IER), which is both healthier and generally more consistent with grasping and making use of the information associated with negative emotions than redirection of *attention*, *reappraisal* (i.e., maneuvers in which situations are reassessed as less worrisome), and *suppression* of the characteristic behavioral manifestations of emotions (Curren & Park, 2024a; Roth, Vansteenkiste, & Ryan, 2019; Schultz & Ryan, 2015; cf. Gross & Ford, 2024).

The dominant approach to ER, pioneered by psychologist James Gross, classifies regulative strategies by their applicability to different stages in the generation and expression of emotions (Gross, 1998, 2015; Gross & Ford, 2024). This *process model* relies on a "response evaluation theory" of emotion that sees emotions as arising "during person-situation transactions that have particular meaning to the individual in light of currently active goals" (Gross, 2024, p. 3, citing Moors, 2017, 2022). According to this theory, emotions arise "through a series of iterative cycles comprising four elements. . . . (1) a *situation* . . . (2) *attention* that determines which aspects of the situation are perceived; (3) *evaluation* or *appraisal* of the situation in light

of currently active goals; and (4) a *response* to the situation" (Gross, 2024, pp. 3–4). Negative emotions are seen as arising from "the detection of a discrepancy between a stimulus and a goal," and ER is seen as initiation of "action control cycles" intended to diminish or eliminate the discrepancy (Moors, 2017, p. 72). Building on this iterated four-stage model, Gross's *process model of emotion regulation* (1998, 2015) distinguishes five related families of ER strategies: situational (i.e., changing the situation or choosing to be in a different situation), attentional (e.g., redirection), cognitive (e.g., reappraisal), and response modulation (e.g., suppression).

Any and all of these kinds of ER may figure in denial. Focusing on the educational contexts in which learning about global challenges may occur, situational strategies may include suppression and avoidance of the troubling subject matter. Attentional strategies would involve presenting or engaging the subject matter in ways that deflect attention away from its troubling aspects, ethical significance, related responsibilities, or need for moral response. "Cognitive" or reappraisal strategies (Uusberg & Uusberg, 2024) could involve countless forms of self-deception, wishful and muddled thinking, obfuscation, and failures of moral clarity. By and large, these attentional and reappraisal strategies would decouple exposure to information from any impetus to action that an associated negative emotion might prompt. Situational strategies intended to diminish or eliminate the discrepancy between the stimulus and a goal would only be consistent with good character to the extent that the ethical significance of what is encountered – in the case at hand, information about a global challenge – remains clearly in view and the "strategy" is to act appropriately in response to the challenge, doing for one's part what one can to make the state of the world less bad.

A curious aspect of "response modulation" strategies, such as emotion suppression, is that they occur too far into the process of emotion generation to be much good in diminishing or

eliminating the discrepancy between the stimulus and the goal. Suppression is usually seen as maladaptive, however it can be socially constructive at times and take the form of efforts to enact a more socially acceptable emotion (English, 2024). In this respect, a suppressive ER strategy could involve experiencing the troubling emotion but acting as if one did not and managing to act appropriately. It could be a way to avert denial, which over time might constitute a pattern of self-controlled action that might yield the relevant virtues.

This is possible, but Self-Determination Theory's concept of *integrative emotion regulation* (IER) offers a more promising alternative to the process model framework. It is more promising, first, because it acknowledges the value of the information conveyed by emotions, rather than regarding painful emotions as simply experiences to be avoided. Emotions involve quasi-perceptual representations of the world and related action tendencies, the latter of which may or may not be appropriate, depending on the accuracy and adequacy of the representations. Conceptualizing ER as efforts to mitigate a discrepancy between a stimulus and a goal places the mitigation of emotional pain front and center, ignoring the vital role of emotions as prompts to action that are often associated with accurate representations of the world.

IER is also a promising framework for addressing the relationships between denial, emotion regulation, and virtue because it conceives of healthy ER as an aspect of the integrative processes through which people acquire coherent values.

Integrative Emotion Regulation

As defined in SDT, IER involves taking interest in one's own negative emotions, tolerating and accepting them, and integrating them with other aspects of the self (Roth, Vansteenkiste & Ryan, 2017). It is "a way of assimilating emotion-laden experiences" that is "facilitated by basic need supports, both developmentally (Brenning et al., 2015) and situationally (Roth et al., 2017)" (Ryan & Vansteenkiste, 2023, p. 19). Importantly, SDT regards emotions as sources of information bearing on the significance of events for a person's needs, values, and goals, "awareness of which allows for greater autonomous regulation and the positive consequences associated with it (Schultz & Ryan, 2015)" (Roth, Vansteenkiste & Ryan, 2019, p. 2). "The combination of freedom to experience emotions as they are and to use emotions as a guide for adaptive behavior is precisely what characterizes emotional integrative functioning," write Benning et al. (2015, p. 573).

Freedom to experience emotions as they are and use them as guides, rather than controlling or being controlled by them, is associated in IER research with metacognitive processes of *mindfulness* and *interest taking* (Deci, et al., 2015; Ryan & Donald, in press). *Mindfulness* is understood in SDT, as elsewhere, as "an open and receptive attention to what is occurring in the present" (Deci et al., 2015, pp. 112–113), while *interest taking* is defined as a similarly open and receptive but attentive to "specific phenomena that are salient in the individual's experience" (p. 113). Deci et al. write that environments are often "structured in ways that distract or fracture experience, or that pressure [individuals] to experience only certain feelings or ideas" – environments are often *controlling*, in short (p. 118) – and mindfulness and

interest taking are metacognitive aids to the integrated self-regulation that is essential to acting responsibly and characteristic of virtue (Curren & Ruyan, 2020).

The psychological integration foundational to people acquiring coherent systems of values has cognitive, motivational, and emotional dimensions, which must be coordinated in order for a person to value something, as *valuing* is defined by philosophers. These defining conditions include conceiving of something as good, being motivated to pursue it, and experiencing related positive emotions in achieving it (Scheffler, 2010; Callard, 2018; Tiberius, 2018). From an SDT perspective, values are acquired as individuals identify values they encounter as their own and integrate them into a cognitively, emotionally, and motivationally coherent self. IER is thus *an aspect* of the integrative process through which coherent values and good character are formed.

This is not to say that ER strategies of redirecting attention, reappraising situations, and suppressing behaviors associated with emotions are never consistent with virtue or avoiding denial. It is to say, rather, that such strategies can be deployed in ways that are more or less controlled and more or less autonomously integrative (Roth, Vansteenkiste, & Ryan, 2019), and it is in their integrative use that these strategies are more apt to direct attention, appraise situations, and modulate action in ways consistent with intellectually and morally virtuous functioning. IER involves metacognitive sensitivity to cognitive and motivational functioning as well as emotional functioning, rather than being narrowly focused on the mitigation of emotional pain.

Towards An IER Pedagogical Toolkit

There is a large body of SDT research on the role of psychological need support in educational contexts, which identifies specific teacher behaviors that are conducive to students experiencing satisfaction of their basic psychological needs for autonomy, relatedness, and competence. We know that these need-supportive behaviors, and need-supportive contexts generally, are conducive to deep learning, sustaining intrinsic motivation, and facilitating integrative processes generally. This implies that pedagogical strategies that foster cognitive and motivational integration could also be effective in fostering IER. Pending further research, it is thus reasonable to suppose that autonomy supportive learning environments would be more successful than emotionally controlling learning environments in enabling students to process the emotions elicited by learning about global challenges and escape the patterns of denial.

Much as character education was seen by Plato and Aristotle as equipping individuals to keep sight of what reason requires in the face of pain and danger, on the one hand, and enticing pleasures, on the other, we have argued that character education should equip individuals to grasp and keep sight of what reason requires in the face of the troubling emotions that trigger denial. This should occur across the curriculum wherever instruction pertaining to global challenges occurs, and it should involve practice in integrative emotion regulation that begins in mindful awareness and interest in what we feel and why. Denial is a failure of intellectual (and other) virtue associated with maladaptive emotion regulation, so promoting a form of emotion regulation that safeguards intellectual virtue is likely to be beneficial.

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