



Human Flourishing, Wonder, and Education

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Accepted: 26 August 2022 / Published online: 23 November 2022
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Abstract

Various authors see human flourishing as the overarching aim to which education should contribute. We ask whether fostering *wonder* can help education attain this aim. We discuss two possibilities: firstly, it may be that having a sense of wonder as adults (possibly fostered by and/or refined due to education) contributes to flourishing itself. Secondly, it may be that fostering wonder in education increases the likelihood that education promotes flourishing, which it might do simply by increasing children's intrinsic interest in what they learn. We argue that there are many plausible connections between wonder and human flourishing (relating to its epistemic and aesthetic dimensions, among others), and that we have reason to believe that early experiences can influence adults' capacity for wonder. Furthermore, wonder increases the likelihood that education 'succeeds'; and it supports people's ability to live well by heightening their appreciation for the world, helping to uncover baseless beliefs, and increasing their awareness of possible goods. In sum, while having a sense of wonder may not be a constitutive element of human flourishing, it is hard to imagine education for human flourishing that is not also wonder-full education.

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Introduction

The view that human flourishing is or should be the overarching aim of education, is increasingly defended in the philosophy of education (e.g. Brighouse 2006; White 2011; De Ruyter 2004; De Ruyter and Wolbert 2020; Kristjánsson 2016, 2020; Reiss and White 2013; Wolbert 2018). That is to say, ‘human flourishing’ is proposed as the answer to the question what education is *for*, or what the point of it is. Whatever educational aims teachers and parents may have, the overarching aim that gives those aims their point is that education should promote children’s present and future flourishing. On this view, education can also *fail* to pursue this aim, and thus lose much of its point. To be more precise: according to this view, when the overarching aim – human flourishing – is lost sight of, education is at risk of losing its point, because the question whether what goes on in schools actually contributes, ultimately, to people’s chances of living a worthwhile and happy life is no longer asked. As a consequence, when (supposedly) ‘educational’ activities do not actually contribute to human flourishing, this fact may go unnoticed. (Apart from this, of course, this view of the overarching aim of education also implies that if teachers and parents were to pursue other aims instead, such as economic growth or a homogeneous society, education would fail to be meaningful.)

The question we ask in this paper is whether fostering *wonder* can help education attain its overarching aim, and thus help make education meaningful rather than pointless. Our focus will be on children’s *future* flourishing; we have discussed the question whether children can (be said to) flourish *as children*, and if so what role wonder could play in this regard, elsewhere (Wolbert et al. 2021). This question is prompted by the observation that wonder has various aspects, such as openness to the world and appreciativeness, that play a role in education for flourishing and seem intuitively important to human flourishing itself – an intuition that gains support from two recent publications (Pedersen 2019; Kristjánsson 2020). That we focus on children’s *future* flourishing does not imply that we see children’s present and future as unrelated.¹ Otherwise it would not even make sense to think about the connection between children’s education and their flourishing as adults. Nor does it mean that we see no connection between their flourishing as children and their flourishing in later life. But here we wish to leave aside the theoretical question whether the concept of human flourishing is applicable to children; and at the same time we wish to acknowledge the potential importance of education for how well people’s lives go, beyond childhood – i.e. in what for most people is the major part of their life.

Education that promotes a sense of wonder can, in theory, contribute to human flourishing in two ways. Firstly, it may be that having a sense of wonder as adults (possibly fostered by and/or refined due to education) contributes to flourishing itself, e.g. due to the specific form of pleasure it gives because of its connection to aesthetic appreciation, or by fostering reflection on what makes one’s life worthwhile. Secondly, it may be that fostering wonder in education increases the likelihood that education promotes flourishing, which it might do simply by increasing children’s intrinsic interest in what they learn. Both possibilities will receive attention in this paper.

We begin with a brief explanation of human flourishing. Subsequently the elusive concept of wonder takes centre stage, and we clarify what we mean by ‘wonder’. Together, this makes up Sect.2. In Sect.3 we show how and why wonder, and having a sense of

¹ We thank an anonymous reviewer for prompting us to be more explicit on this point.

wonder (and in particular a sense *for* wonder), may contribute to human flourishing, and discuss whether wonder can even be said to be constitutive of flourishing – i.e. to actually be an inherent part of what it *means* to live a flourishing life. In Sect.4 we discuss what this means for *education* for human flourishing. Should education for human flourishing also be ‘wonder-full’ education?

The Concepts of Human Flourishing and Wonder

Human Flourishing

(Striving for) a flourishing life should be considered an ultimate rather than an intermediate or instrumental aim. In an Aristotelian sense, ‘human flourishing’ is the (final) answer to the question of what human beings strive for (Aristotle 2009: 3, 1094a and 10, 1097b; see also e.g. Annas 1993). Therefore, in the broadest sense, if people aspire to become flourishing human beings, it stands to reason that education should also, ultimately, contribute to that aim; and if education fails to do so, there is something wrong with it. For Aristotle, a flourishing life is a life that perfectly balances ‘doing well, faring well, and behaving well’ (see MacIntyre 1967: 59), meaning that a flourishing life is not only a life in which someone’s basic needs are met (health, financial security, safety, etc.), but also a morally good life, a politically (socially) outstanding life, a happy life and a life in which one makes wise choices about, and wisely balances, these aspects.² According to White (2011), a flourishing life is best defined as a life filled with meaningful relationships and wholehearted engagement in worthwhile and successful activities and experiences. White defines ‘successful’ here in the broadest sense of achieving what one aspires to achieve.³

Since perfection is in principle unattainable for human beings, we tend to think of flourishing in a gradual sense – how close to this perfect life someone is tells us how ‘much’ this person is flourishing/has led a flourishing life.⁴ In this sense, if people strive for a flourishing life, and if education aims to contribute to children’s future flourishing, they aim for this ideal (perfect) life, but are content or satisfied if their lives/the lives of the children who are educated approach this ideal. In what way and how far a person is able to draw near to perfection, is agent-relative, i.e. it depends on the capacities and life circumstances of that person (see for example De Ruyter 2007, 2015). That flourishing does not require perfection is also expressed in the idea that it is a ‘threshold concept’ (see Curzer 2012) or ‘satis concept’, meaning that “for the concept C, something can satisfy it simply by being ‘C enough’ rather than being ‘absolutely C’ or ‘as C as can be’” (Kristjánsson 2020: 11).

² Naturally, a full development of a *conception* (rather than the general concept) of flourishing would entail specifying what it means to live a morally and politically good life. Aristotle’s views on this are likely to be different in one or more respects from most views on this defended today; this does not detract, however, from the value of virtue ethics as an approach to the question what makes life and particular activities worthwhile.

³ To be sure, the importance of ‘successful activities’ does not exclude the value of (some) failure. One can learn a lot from unsuccessful experiences and this might contribute to one’s flourishing. However, too little success (in the broadest sense possible) is always detrimental to flourishing.

⁴ We define ‘perfection’ here in a strict sense, as flawlessness. Human lives are human, not divine, and are in principle not flawless. This is a stricter use of the term than is common in everyday life, where we say, for instance, that someone has done ‘a perfect job’, which simply means that it meets (or even exceeds) all our expectations – not that it is impossible even in principle to conceive of an (in some aspect) even better job.

Theories of human flourishing are a subcategory of theories of well-being. While the latter also include, for instance, hedonic theories that identify well-being with particular subjective states and/or evaluations – pleasure, life-satisfaction, and/or the fulfilment of (informed) desires – theories of human flourishing posit that there is always (also) an objective element to well-being. This means that whether someone flourishes or not can be assessed, in principle, by a third person, by judging the extent to which certain objective goods are realized in someone’s life. These goods include such things as enjoying good health, having meaningful relationships with friends, family, and/or others, as well as the extent to which one lives a morally good life.

In this paper we adopt a *hybrid* theory of human flourishing, i.e. the kind of theory that argues that it is implausible to ignore a person’s own feelings about her own life when evaluating whether she flourishes or not (see De Ruyter 2004: 380), but equally implausible to simply equate flourishing with subjective well-being (see also De Ruyter 2004, 2007; White 2011; Wolbert 2018). There are different points of view within this category as well. De Ruyter (2007, 2019), for instance, argues that satisfying the objective goods, having the freedom to give an interpretation of these goods that is both subjectively meaningful and objectively valuable (see also Wolf 2010), and a positive subjective evaluation of the whole of one’s life taken together are what defines flourishing. This positive evaluation is usually interpreted as (subjective) happiness. For Kristjánsson, however, subjective happiness is strictly speaking not part of flourishing but rather ‘the icing on the cake’; but since people who are able to realize the important objective goods to a great extent, and in a way that suits them, *will* typically evaluate their life in a positive way, subjective happiness will typically be part of a flourishing life (Kristjánsson 2015: 13, 2017: 90, 2020: 7, 62).

Furthermore, exactly *which* objective goods should be satisfied in order to live a flourishing life is dependent on one’s conception of flourishing, and of course always up for debate. For the sake of connecting flourishing to wonder, we concisely discuss some (relatively uncontested) potential elements of a flourishing life.

Kristjánsson suggests that flourishing has two main *preconditions*: ‘external necessities’, and a ‘sense of meaning and purpose’ (2020: 33). These are necessary to be able to realize the external and internal goods that are constitutive of flourishing. With the term ‘external necessities’ Kristjánsson refers to “various psychological, physical, societal/political and economic aspects of what philosophers call ‘moral luck’: favourable enabling circumstances that are largely beyond the agent’s own direct control” (2020: 33). Examples are: good upbringing, good government, health, strength and ‘even minimal physical beauty’ (ibid.: 35). People need a bit of luck, to have things go well for them, in order to be able to flourish (see also Wolbert 2018). Kristjánsson also holds that in order to lead a flourishing life, people need to have a ‘sense of meaning and purpose’ in their lives.⁵

As Kristjánsson (2017: 92; 2020: 35) also notes, the distinction between external *necessities* that are preconditions for flourishing and external *goods* that are *constitutive* of flourishing can become blurred. For instance, having good friends and enjoying good health may

⁵ This is a *precondition*, a necessary condition for flourishing – not a sufficient condition – because a sense of meaning and purpose can ‘easily be amoral or even immoral’ (think of Hitler’s sense of purpose, see Kristjánsson 2020: 41). We agree that meaning and purpose are not sufficient conditions for flourishing (see also De Ruyter 2004: 383), but this is no reason to deny meaning that is *not* disqualified on such grounds as mentioned by Kristjánsson a status as a *constitutive* element of flourishing; having a sense of meaning and purpose, and experiencing meaning in life, is an important *component* of people’s flourishing, and a reason why people would say they are flourishing.

well be seen as constitutive elements of flourishing. It is also clear that the term ‘external’ can be misleading, since several of these preconditions/goods involve a combination of objective qualities and subjective evaluations and experiences. A person’s relations with other people can hardly be described as purely ‘external’ things; and that we often speak of ‘enjoying good health’ also shows that the boundary between the objective and the subjective, the outer and the inner, is blurred here.

To avoid these problems we list here only goods that we consider to be constitutive of flourishing, and we categorize these (pragmatically) as circumstantial goods, goods of character, and experiential and expressive goods. *Circumstantial goods* include such things as enjoying good physical and mental health, having meaningful social relationships (friendly and respectful relations with colleagues and one’s wider social circle, and loving and supportive relations with family and/or friends), and being able to engage in activities (professionally or in one’s personal life) that suit one’s temperament, are satisfying, and are subjectively and objectively meaningful.⁶ These goods refer to different life domains (e.g. work, family life, civil society); since realizing goods in one domain can to some extent come at the cost of realizing goods in another domain it is generally considered important to strive for a good balance between these diverse domains of our life (see e.g. Wolbert et al. 2015). *Goods of character* include moral virtues (such as justice, courage, honesty, and being caring), intellectual virtues (such as open-mindedness, intellectual humility, and love of truth), and the in-between or combined virtue of practical wisdom. *Experiential and expressive goods* include the exercise of cognitive-affective abilities like imagination, reason, creativity, and playfulness (see Nussbaum 2000, 2006); but this category may also be taken to include a part of the subjective element included in hybrid theories of flourishing, namely those subjective states that, provided they are not ‘perverse’, i.e. related to immoral activities or aims, are intrinsically valuable (pleasure and enjoyment of various kinds; see Rice 2013).⁷

Rice (2013) also mentions ‘autonomy’, ‘meaningful knowledge’, and ‘achievement’ (cf. for autonomy and achievement – as related to competence – also Deci and Ryan’s Self-Determination Theory; Ryan et al. 2013). These, too, are plausible candidates for a list of objective goods that are constitutive of – or at minimum necessary for – human flourishing. But while the latter two can be subsumed under the heading of experiential and expressive goods, and can be considered natural extensions of the goods we have already listed under that heading, autonomy rather seems to cut across all three categories, and is thus worth mentioning separately.⁸ With this addition our list may still not be complete, but it gives us enough to work with in the following sections. Some plausible connections with wonder immediately present themselves – there are for instance both moral and intellectual virtues that might be nurtured by (the ability to) wonder (e.g. humility or modesty, and the virtue of contemplation); and wonder has both aesthetic and epistemic qualities that link it with some

⁶ The term ‘circumstantial goods’ should not be taken to imply that these goods are completely beyond people’s own influence. On the contrary, people’s contribution is necessary for most of those goods to exist. We merely want to indicate that they covers goods concerned with the circumstances in which people find themselves.

⁷ If someone were to take pleasure in torturing animals, for instance, we would consider this a perverse pleasure, not to be considered intrinsically valuable.

⁸ We understand autonomy in terms of the control one has over oneself and one’s situation, not as a character trait.

of the goods mentioned above. But before we go into this it is important to first have a better grasp of the concept and the experience of wonder.

Wonder

“Wonder is a sudden experience that intensifies the cognitive focus and awareness of ignorance about a given object. It is typically an unsettling, yet delightful experience that makes one aware that there might be more to the perceived object than meets the eye.” (Pedersen 2019: 1) Whereas Jan Pedersen highlights the intensification of cognition, Jesse Prinz, in relation to the thesis that proper works of art should make us wonder, argues that wonder affects us in three dimensions; cognitive, sensory, and spiritual (see Gess 2019: 24; she refers to an unpublished manuscript by Prinz). Anders Schinkel’s definition expands on this by defining (deep) wonder as “a mode of consciousness (...) which engages us on *all* levels – emotionally, intellectually, aesthetically, and strongly existentially” (2017: 552; see also Hove 1996: 442, who describes wonder as an emotion and also a state of mind).

The term ‘wonder’ refers to a range of experiences that can vary considerably. Still, it is possible to describe a number of characteristics that are typical of wonder, and that are arguably shared by most, if not all, experiences of wonder, though to varying degrees. Schinkel (2021a: 49–50) lists the following:

1. Wonder is a mode of consciousness, thus not an isolated feeling but a total state of thinking and feeling.
2. It entails an epistemic element in the form of surprise, puzzlement, perplexity or yet another form; in contemplative wonder this takes the form of an experience of mystery (the object of wonder being beyond one’s powers of comprehension).
3. To experience wonder is therefore to experience a ‘meaning gap’. In most cases it will also contain the suggestion or promise of a new, deeper or more comprehensive, meaning, but this is not always the case; and where it is, this meaning is also elusive, thus also sensed in its absence.
4. Wonder is object-centered.
5. One’s attention is ‘arrested’ by the object.
6. The object of wonder is perceived as worth attending to for its own sake.
7. There is a strong receptive element to wonder, and contemplative or deep wonder is (phenomenologically) wholly receptive.
8. Wonder entails an intensification of the present; the experience is fuller and more vivid than ordinary experience.
9. Wonder has an ‘open’, to some extent indeterminate, character, in the sense that the attitude to take towards the object of wonder (other than one of wonder), or how to respond to it, is not fully and definitively decided.
10. It entails a certain ‘psychic distance’ from the object, a sense of being an observer, without being overwhelmed by emotion.⁹
11. Wonder involves a stirring of the imagination, which may range from a delicate probing to a wandering, restlessly searching attempt to ‘get one’s head around’ something, and again to an active ‘play’ of the imagination.

⁹ The term ‘psychic distance’ comes from Parsons (1969: 87).

Implied in this list is a distinction Schinkel (2017, 2018, 2020, 2021a; following other authors) makes between inquisitive and deep or contemplative wonder. Inquisitive wonder, as the word suggests, refers to a more inquisitive or exploratory attitude; it combines the receptivity that characterises all experiences of wonder with the activity of seeking explanations and understanding. This is often referred to in the literature as wondering *about*. This form of wonder is somewhat more closely related to curiosity and is therefore more easily linked to education and learning than contemplative wonder. Contemplative wonder (wonder *at*) refers to a predominantly receptive response to its object. It is a quiet response to mystery; though it may involve a play of the imagination there is no focused search for an answer, it does not immediately translate into (explorative) action. This type of wonder is therefore closer to awe than to curiosity. Sometimes when the moon is particularly clear you may imagine looking down from there on yourself, walking the surface of this planet called Earth, and feel a deep wonder at the sheer fact that this is real. Such an experience is seldom accompanied by, and even rarely gives rise to an immediate search for explanations or understanding; it feels obvious that we are confronted with a mystery we cannot fathom. And though such wonder may well develop into awe or be mixed with awe, this need not be the case either. Central to awe is the perception of ‘greatness’, so an evaluation that the object of awe is worthy of the greatest admiration. Wonder is less determined, more open than that; no definitive decision has been made about what our attitude towards the object of wonder should be – one’s puzzlement or sense of mystery prevent that (Schinkel 2021a: 43–44).¹⁰

It is clear that wonder *does something with/to us*, it *affects* us: we are puzzled, even amazed perhaps, and as a consequence not only our view of what triggered our wonder and/or of the object of our wonder changes, but also our view of our knowledge and understanding, which are seen to be inadequate. In wonder we experience something ‘strange’, either something actually new and puzzling or something familiar but perceived ‘as if for the first time’ – that is, as strange or remarkable. We come to realise that our current perspective on and understanding of the world is inadequate. As Paul Martin Opdal writes, in wonder we reach the limits of our current state of knowledge and understanding (of something in particular and/or the world as a whole) (2001: 332). This need not be an objectively extraordinary, rare, or life-changing situation, such as an earthquake or a childbirth; smaller things can also make us see things in a new light, for example when one wonders about (or at) the differences between one’s migrant neighbours’ conception of hospitality and one’s own, and becomes more aware of one’s own social and cultural embeddedness. The ‘otherness’ we are confronted with in wonder, as in the encounter with people with different socio-cultural backgrounds, can lead to learning new things (new ways of thinking about food and its various meanings beyond nutrition, for example, potentially leading all the way to appreciating diversity, and being inclusive), but also to fear of the other, and rejecting the other’s ways (leading all the way to discrimination and exclusion perhaps). Wonder in itself implies openness of mind, but we do not always manage to sustain that openness. When we

¹⁰ Our view of wonder, and therefore also of its relevance to flourishing, differs on this point from that expounded by Kristjánsson (2020: 88–89, 93ff.), whose discussion centres on what he describes as ‘Aristotle’s focus on the intellectual virtue of wonder’ (ibid.: 95). While we believe that there is a range of experiences, commonly and properly expressed in terms of wonder, *beyond* ‘intellectual’ (i.e. inquisitive) wonder, at least some of which are covered by terms such as ‘deep wonder’ or ‘contemplative wonder’, Kristjánsson (ibid.: 108) is “not sure whether there really is conceptual space for a notion of ‘deep wonder’ between ordinary wonder (...) and awe proper”.

do, wonder is likely to be a delightful experience; when not, we might get stuck in feeling unsettled by the shaking of our worldview, and this might lead to fear and rigidity and a closing down of wonder (see also Egan 2014: 154).

Wonder is therefore also a type of experience in which we can be *vulnerable*. In wonder we can be both epistemically and existentially vulnerable because wonder is a particular type of opening oneself to the world – we face the world with an open visor (Hove 1996: 447). The realisation that the world might not fit the boxes and categories we had, can expose our epistemic and existential vulnerability as human beings. In addition, we are socially vulnerable when we *show* our wonder, because others might not treat it with the tact it demands; they might dismiss our intimate experience of importance as naïve, childish, or insignificant.

That wonder can affect us in these different ways (delight, fear, openness, closure) has to do with the fact that the experience of wonder, initially, entails a breakdown of meaning (Schinkel 2021a: 28ff.). Our frameworks of understanding prove to be inadequate; we are incapable of attaining cognitive ‘mastery’ of what confronts us. This can be a thoroughly unsettling and upsetting experience. In wonder things are stripped of their ordinary meaning, and at the same time we are (momentarily) stripped of our implicit sense that things ‘make sense’. When the experience does not move beyond this, wonder is a ‘dark’ experience. Yet in many cases, wonder also contains the hint of a ‘new, deeper or more encompassing meaning’ (ibid.: 29). As Carson (1955: 7) writes: “Underlying the beauty of the spectacle there is meaning and significance. It is the elusiveness of that meaning that haunts us, that sends us again and again into the natural world where the key to the riddle is hidden.”¹¹

A related aspect of the phenomenology of wonder is the sense of importance implicit in it: the object of wonder is experienced as, at the very least, worth *attending* to for its own sake, but more often than not it is felt to be important, valuable, worthy of care and respect (Moore 2005). Typical of wonder is that our attention is arrested by something; and the object of wonder is attractive and compelling to us. The object of wonder takes center stage, the rest of the world fades into the background (Schinkel 2017, 2021a: 23). Ronald Hepburn writes that wonder is ‘other-acknowledging’ (1980: 14); and as Nussbaum writes, it is also ‘self-forgetting’ (2001: 10), in the sense that the whole of one’s attention is on the object one wonders at, and almost no attention goes to connecting this object to oneself – in particular, to what one might want from or do with it.¹²

Cutting across the aspects of wonder described above is a distinction between two dimensions of wonder (briefly mentioned before): an *epistemic* and an *aesthetic* one. Wonder’s epistemic dimension refers to the fact that in wonder we are always confronted in some way or another with something we cannot grasp – puzzlement is therefore always, to a greater or lesser degree, part of the phenomenology of wonder. Sometimes this leads us

¹¹ An anonymous reviewer rightly noted that Carson had a specific perspective on wonder, in which wonder and its value were intimately tied to experiencing, or being in a close relation with, the natural world. We offer this here merely as one instance of the recognition that wonder contains a suggestion of deeper meaning, without suggesting that this must be tied to the experience of nature. For Carson’s view of wonder see Carson (1965), and for discussions of Carson’s views see Moore (2005) Fuller (2006) and Schinkel (2021b). See footnote 19 for other authors that connect wonder, nature, and spirituality.

¹² Nussbaum makes an interesting point in connection with this, namely that while emotions are generally eudaimonistic in the sense that they involve a judgement concerning the value of something, which judgement also makes reference to our well-being, wonder is ‘as non-eudaimonistic as emotions can be’ (Nussbaum 2001: 54–55). If this is right, the question arises whether if we wish to promote flourishing, it could be valuable to promote a state of mind and feeling that temporarily brackets (any concern for) our flourishing.

to seek explanations, a better understanding, sometimes we are struck silent by the mystery that confronts us and cannot do anything but hold on to this; but an epistemic dimension is always present. The aesthetic dimension is certainly present in *most* experiences of wonder, though perhaps not in all. It should not be interpreted narrowly, however, as referring to experiences of beauty alone, but rather in terms of the contemplation of and delight in patterns of all kinds, as well as the sensual or perceptual overload (the sense of ‘muchness’, Horowitz 2013: 26) we experience in wonder – e.g. we stand at the seashore, the sea comes and goes, washes around our feet, the sea extends beyond the horizon in front of us, the sky infinitely above us, the earth in all directions around us, and the whole is just a moment in time from which eternity stretches both ways, and we feel both grounded in the whole of existence and groundless as being itself – we experience it all at once and yet it is impossible to take in, it is too much, we are overwhelmed, though in a calm, not a violent way.

We realise that the above analysis of wonder is brief and selective, but further elaborations lie outside the scope of this article.¹³ However, two further points are worth making here, since they are relevant with regard to connecting ‘wonder’ to ‘human flourishing’. Firstly, wonder tends to be *spontaneous* in character, in the sense that experiences of wonder cannot be summoned (Van Perlo and Wolbert 2020; see also Verhoeven 1967). This point concerns not just the phenomenology of wonder, but also the conditions of wonder’s occurrence. Typical of wonder is that it happens to us, and that we are taken by surprise by the experience (Fisher 1998). Wonder tends to come unbidden, and – unless it is of a particularly unsettling kind – as a gift. This adds to the potential intensity of the experience, and for that reason increases the likelihood that wonder indeed ‘does’ something with us. Nevertheless, people *can* aim at increasing the chance that they themselves will be struck by wonder, for example by doing something as simple as standing still, looking around and trying to pay attention to what they actually see, rather than what they immediately think they see (Horowitz 2013; see also Vasalou 2015: 94ff.). In other words: we can cultivate – work on – our own sense of wonder. And it is also possible to increase the likelihood that *others* experience wonder, and arguably to influence what they will wonder at or about. There are techniques, for instance, that one can use to ‘defamiliarize the familiar’ (Egan 2014: 153–157; Hadzigeorgiou 2014: 47; Piersol 2014: 10); and one can ask questions that expose the limits of understanding, one can stimulate imaginative engagement with familiar objects (Egan 1992), create room for ‘aimless’ exploration and experimentation, and so on (see also Conijn et al. 2021 for an overview of ‘strategies’ to promote wonder). The opposite is also possible, of course, and probably easier: one can make it much more difficult for others (or oneself) to experience wonder, and arguably a significant part of what is ‘standard’ education today has that effect.

Secondly, the following sections assume that it is useful to distinguish between *wonder* as a (unique) experience – in psychological terms: the ‘state’ – and a *sense of wonder*, which usually refers to the capacity and inclination to experience wonder (every now and then) – in psychological terms, the ‘trait’. Having a sense of wonder can, however, also be interpreted in a stronger sense, as referring to having a sense of the *wondrousness* of the world and all things in it. This stronger sense we call a *sense for wonder* (discussed further below).

¹³ For more elaborate analyses see, for example, Hepburn (1980), Hove (1996), Hadzigeorgiou (2014), Vasalou (2014), Pedersen (2019), Lloyd (2018), Schinkel (2017, 2018, 2021), Wolbert (2020).

Connections Between Wonder and Human Flourishing

How and Why Wonder Can Promote Flourishing

According to the hybrid conception of flourishing we accept, a person's flourishing entails a combination of (a) the satisfaction of objective goods interpreted by this person in a subjectively meaningful and objectively valuable way; and (b) a positive subjective evaluation by this person of the whole of her life. Among those goods are circumstantial goods, goods of character, and experiential and expressive goods; and cutting across these is the good of autonomy).

How and why might experiencing wonder – or having a sense of wonder – contribute to a person's flourishing? Our answer will inevitably be incomplete, but we will outline a number of important ways and reasons, focusing on respectively the epistemic dimension of wonder, its aesthetic dimension, the combination of both, the spontaneous or unbidden character of wonder, and the sense *for* wonder.

Firstly, we noted that the experience of wonder always has an epistemic dimension: it always involves a sense of puzzlement or mystery – the feeling of a question, even when no question is explicitly verbalized in one's mind – and it confronts us with the inadequacy of our current (frameworks of) understanding or even of our (human) ability to understand the world *per se*. Wonder, furthermore, involves a twofold openness: “Wonder opens the heart and mind, and opens these up to the world” (Schinkel 2021a: 123). Wonder is anti-dogmatic, loosening our attachments to established ‘facts’ and ways of seeing and interpreting the world; at the same time it heightens our interest in the world and often stimulates new attempts to understand it better. This highlights a connection between wonder and (epistemic) *realism* that is relevant to flourishing, mirrored in a recent book by Badhwar (2014). Badhwar makes a case for the importance of realism for human flourishing, by which she means that flourishing requires both reality-orientation and the ability to achieve understanding and to act on that understanding when circumstances permit this (Badhwar 2014: 23).¹⁴ Wonder is a mode of consciousness that can foster both. As Pedersen (2019: 187) writes, the openness to which wonder can give rise “enables us to explore different ideas and goods outside of what is known to us, and in doing so we may discover goods that we never believed existed, or that some of the goods we already have may not really (...) contribute to our flourishing”. Thus, wonder contributes to the control we can exert over our lives by increasing our knowledge and understanding of possible goods; it therefore fosters autonomy as well as a good life.

As to the second type of openness: wonder makes us receptive for what presents itself to us, drawing our attention outwards in a way that makes us forget ourselves and open up to the ‘other’. All of this seems to make wonder an ally of a range of intellectual and moral (the line is often blurry) virtues, such as humility and modesty, wisdom, and care, respect, and compassion – and thus a potential contributor to flourishing. It is plausible that when a person is capable of experiencing wonder of this kind, and actually experiences it with some regularity, this will prevent over-confidence in her own knowledge (ableness) and understanding. To the extent that a person becomes aware of this, wonder may also promote wisdom, understood as ‘the way in which knowledge is held’ (Whitehead 1962:

¹⁴ Some aspects of Badhwar's argument are less than convincing (see Schinkel 2014), but they are not crucial to our argument here.

46), because it will influence how this person relates to her knowledge, and what she does with it. As to *moral* virtue, we would claim too much if we said that experiencing wonder *necessarily* leads to or enhances a person's moral virtue (Schinkel 2018), but certainly there is an important type of experience of wonder that does lead us easily to the appreciation of the intrinsic value of other beings or of life as such (Moore 2005); and even a morally more 'neutral' form of contemplative wonder may be valuable, because it may lead to a more critical and reflective moral stance.

Secondly, wonder can be a response to what, for lack of a better word, we often call 'beauty' – as when a person takes in a sublime mountain vista, or a river winding its way silently through a valley far below. But its aesthetic dimension is not the same as, and entails more than the enjoyment of beauty; the word 'beauty' does not quite capture what one responds to, and the experience may also involve a sense of (sensuous as well as cognitive-affective) 'muchness', of myriad connections just beyond one's grasp, and an appreciation of patterns such as those found in the natural world (snowflakes, spiderwebs, complex ecological relationships). That the experience of wonder often involves a 'play of the imagination' has as much to do with this aesthetic dimension as with its epistemic dimension: the mind is trying to form a 'picture' of something that escapes the picture frame on all sides.¹⁵ Thus, from this perspective the ability to experience wonder contributes to human flourishing because it entails a unique (and non-perverse) form of enjoyment and appreciation of the world, which at the very least constitutes an intrinsically valuable subjective state (but might also be considered an objective good),¹⁶ and because it involves and stimulates the (pleasant) exercise of one's cognitive-affective abilities.

Thirdly, the combination of the epistemic and aesthetic dimension of wonder make for a link between wonder and spirituality (understood broadly as our sense of mystery and how we respond to the mystery of existence).¹⁷ Because in wonder we 'sense' something that eludes our grasp it "motivates us to contemplate the possibility that there are causal powers existing 'beyond' our immediate physical surroundings" (Fuller 2006: 14); or at least wonder reminds us of the non-absolute character of any conception we form of the world, of what matters, and of the divine. For these reasons wonder can, though to varying degrees, foster our sense of meaning and purpose.¹⁸ It can do so when experiences of (deep) wonder instill a sense of being part of a greater, valuable whole that one wishes to contribute to; but it can also be an impetus towards nuanced reflection on what makes (one's) life meaningful and what is worth striving for, and by preventing an absolutist commitment to any specific doctrine. With regard to the former the connection with nature is especially worth mention-

¹⁵ For an extensive discussion of the relation between wonder and the imagination see Pedersen (2019: ch. 3).

¹⁶ As Moore (2020: 77) writes: "It is plausible that some activities may be valuable, or more valuable than they would otherwise be, in virtue of being wondrous. The wonder instilled by astronomy, parenting, etc. might be part of what makes those activities worth valuing and doing."

¹⁷ Here, but possibly already in the previous point, Kristjánsson would probably substitute 'awe' for 'wonder'; we side with Fuller (2006) here, however, who does not hesitate to call *wonder* (not awe, though it is implicitly clear from his work that he sees considerable overlap between the two) 'the emotion most closely associated with humanity's spiritual impulses' (ibid.: 14). That said, there is clearly an overlap here between what Kristjánsson sees as the importance of awe for human flourishing – which has to do with the self-transcending urge towards ideals of truth, beauty, and goodness it embodies – and what we present here as the value of wonder for human flourishing.

¹⁸ As noted before, though, wonder – or what it reveals – can also be highly unsettling. It can sometimes lead to existential anxiety and a desire for the certainty of dogma – the opposite of wonder. This means that the promotion of wonder requires pedagogical tact (Van Manen 2015; Van Perlo and Wolbert 2020).

ing; many people with an especially strong sense of wonder (Fuller mentions John Muir and Rachel Carson, for instance) feel a strong connection with nature. Their wonder is directed at and excited by the natural world, which is for them a powerful source of meaning and of well-being.¹⁹

Fourthly, because of the often spontaneous, unbidden character of experiences of wonder, these experiences – unless they are of the darker, unsettling kind – often have the character of a gift.²⁰ Not only does this, once again, mean that wonder involves intrinsically valuable subjective states, but more importantly this opens up the possibility of a wonder-inspired appreciation of and for life – for those sufficiently favoured by good fortune, at least, though it by no means requires a life in which everything goes well. Paradoxically, to bring this about in one’s own life is likely to require the ‘cultivation’ of one’s sense of wonder (of a ‘habit of wonder’, Pedersen 2019: 123) as a kind of spiritual discipline: practicing living with a receptive kind of attention, open to how remarkable it is that we exist, that anything exists, and how remarkable all manifestations of existence and of life are.²¹ This involves a sense *for* wonder, a term that places more emphasis on the actual or supposed wondrousness and wonderfulness of the world (as that to which wonder is a response) than on the subjective response. This can take a moderate and a more extreme form; here we mean to draw attention first to its moderate form, which entails having an appropriate belief that the world contains wonder, that existence as such and all its instantiations are extraordinary (see Bynum 1997: 26: “Every view of things that is not wonderful is false”). To the extent that such a ‘discipline’ succeeds, wonder becomes dispositional in the strong sense that it becomes a “permanent tone in the background, something that influences the hue of our perception of the world” (Schinkel 2021a: 25) and in that sense when full-blown wonder strikes it will never be entirely unexpected, but always prepared-for – though it will still not come at one’s bidding.²² The relevance of all this for human flourishing is that wonder can enrich a person’s life both in the form of experiential gifts and because it may enhance one’s appreciation of other goods. And clearly, this is also likely to have an effect on one’s sense of meaning and purpose.

Finally, and building on the former point, there is the possibility that a person’s sense of wonder takes the form of a sense *for* wonder in a second sense of that term, expressing someone’s (extraordinary) capacity for looking at ‘the bright side of life’, that is, being able to see (and keep seeing) the beauty and goodness in the world, *regardless* of the extent to which this corresponds with a true and balanced picture of the state of the world. This will on the one hand contribute to a person’s flourishing in the same ways and for the same reasons as described in the previous paragraph, and arguably to a greater extent, as it will

¹⁹ This interconnection between wonder, nature, spirituality and well-being is also noted in educational literature (e.g. Judson 2010; Jørgensen 2016; Washington 2018) and child advocacy/child psychology literature (e.g. Louv 2010).

²⁰ If ‘gift’ is used in a more neutral sense (i.e. as not necessarily positive), then we might also say that dark wonder can have the character of an unwanted gift.

²¹ Louv (2010: 291) refers to Rabbi Abraham Joshua Heschel’s view of spirituality (as rendered by Rabbi Martin Levin) as living in ‘radical amazement’ – something that, as Vasalou (2015: 110–111) writes, was for Heschel not only a prerequisite of religious faith but also a religious duty.

²² The term ‘full-blown wonder’ is here used to distinguish the typical momentary experience of wonder – as a rather intense experience and something that suddenly strikes, a mode of consciousness one is thrown into – from wonder as a permanent tone in the background. I.e. the former is a sudden, momentary intensification of the latter. We thank an anonymous reviewer for urging us to clarify this.

involve a greater, more generalized appreciativeness. On the other hand, however, to the extent that such a sense for wonder is out of touch with ‘how the world is’ it also raises the possibility that it may *detract* from a person’s flourishing – a possibility we return to at the end of the next subsection.

Is Wonder a Constitutive Element of Flourishing?

Imagine a person who, after a difficult childhood and having overcome hardship, has managed, with the support of trusted friends, to make her way in the world; who has found her calling, even, and has found love to boot. She is professionally engaged in work in which she helps others in circumstances similar to those she experienced as a child to find their feet – challenging but rewarding work, that she experiences as highly meaningful. She has found an appreciation of life that in her youth she would never have thought possible, and that she shares with her partner. When she contemplates the course of her life she often experiences wonder at the contingency, the unlikeliness of it all; the memory of her childhood and the reality of her current life do not rhyme, they seem utterly incompatible, and yet somehow the latter emerged from the former. Her wonder often generalizes into a deep wonder at the whole of life, of which her own life is just one instance: a tiny detail of an infinite fractal, greatly enlarged in her everyday experience, but from which in wonder she can zoom out to marvel at the complete coincidence of significance and insignificance. Such moments are among those at which she feels most alive – most fragile and *therefore* most alive – and most appreciative of how precious life is and how lucky she has been.

It is not too difficult, therefore, to imagine lives in which wonder is an integral part of a person’s flourishing. But that does not mean that wonder, or the ability to experience wonder, is a constitutive element of human flourishing in general, or even that it is necessary to be able to flourish as a human being. Perhaps we can conceive, for instance, of someone who is not at all prone to wonder yet leads a flourishing life. In the example above, can we leave wonder out? This does indeed seem possible: we can imagine that she appreciates her own effort as well as her good fortune, the support of her friends, and so on, but that she does not stop and think about it, neither questions it nor marvels at it, but rather takes every day as it comes and grasps every opportunity with both hands. She dwells neither on the past nor on the future, but lives in the here and now. It is not that she never reflects on life – on her own, that of others, and the role of luck as well as institutions and public policy in how lives go – but her reflection does not take the specific form of wonder, nor is it inspired by experiences of wonder. It is practical, ethical, political, but it does not stem from that combination of puzzlement and a sense of importance that is typical of wonder.²³ This picture, too, seems to be plausible enough, leading to the tentative conclusion that experiencing wonder is not a constitutive element of human flourishing, nor a necessary prerequisite of it.

But aside from actually experiencing wonder, what about the *ability* to experience wonder – i.e. having a ‘sense of wonder’? What if someone would be completely incapable of experiencing wonder? Could such a person still flourish as a human being? Schinkel (2021a: 82) asks whether there would be something wrong with a person incapable of “experiencing wonder at the mystery of being, or at any particular being’s being just what it is”, whether wonder is at least sometimes “a fitting or even a required response to the world” and whether

²³ Hadzigeorgiou (2020: 188) speaks of a combination of puzzlement and admiration, *aporia* and *thaumazein* (in Greek).

there are “times when other responses would be inadequate”. In his response he points out that while someone incapable of experiencing wonder might still be able to recognize that the world exceeds our capacity to understand it (and thus avoid the vice of *hubris*), such a person’s understanding would be purely ‘intellectual’ – “as incomplete as a similar understanding of love or mortality is when neither have been *experienced* in a meaningful way”. If this makes sense, then a person utterly incapable of wonder would be cognitively-affectively impaired in a unique way; she would lack a proper *sense* of perspective on the world and her place in it. “If it has not evoked wonder, the mystery of being has not truly sunk in.” (Schinkel 2021a: 82) Earlier we noted a connection between wonder and realism, and between realism and flourishing. Here, the notion of realism reappears in a different way. The point we make here is that a ‘realistic’ or true assessment of our epistemic situation with regard to existence as such, if it is to go beyond a barren intellectual understanding, requires wonder. Furthermore, someone incapable of wonder would lack the ability to *marvel* at the world, to fully appreciate how remarkable it is, and how extraordinary the ordinary is when you stop to think about it. We think it probable that the great majority of people are capable of such wonder and do experience it at least sometimes – momentarily, until the demands of everyday life with its apparent certainties reclaim their attention – and if this assumption is correct, people incapable of wonder will be rare, and their lives will be to some extent impoverished. Still, unless it could be established that a sense of wonder is a *prerequisite* of other forms of interest in the world, with having a sense of meaning and purpose, or with other preconditions for or constitutive elements of flourishing (and we cannot see how this could be done), we have to admit that a sense of wonder is not strictly necessary to be able to live a flourishing life, and therefore also not a constitutive element of it. A wonderless person’s world would lack a particular kind of enchantment, but it would not necessarily lack enchantment altogether, and certainly not all interest.²⁴

A final question is whether wonder can also detract from human flourishing. We ended the previous subsection with the possibility that a *sense for* wonder may be out of touch with how the world really is, and that this raises the possibility that wonder may detract from flourishing. Someone with an exaggerated sense for wonder would suffer from three flaws: she would wonder at things for the wrong reasons;²⁵ she would be (relatively) blind to those aspects of existence and those things in the world that are not wonderful but painful, cruel, ugly, and so on; and she would fail to strike the balance between marveling at the world and daily functioning that is necessary for good living.²⁶ If a person’s sense of wonder is to contribute positively to her flourishing, therefore, it must as Pedersen (2019) has argued be a *balanced* sense of wonder.²⁷

²⁴ We imply a reference to Kristjánsson (2020: ch. 5) here, who argues for an extended, ‘enchanted’ Aristotelian theory of flourishing.

²⁵ We realize this raises a difficult problem: are some things ‘objectively’ worthy of wonder and others not? In one sense, of course, everything is wondrous, since everything is an instance of the mystery of existence. But in some cases wonder may be purely a function of ignorance or a lack of thinking, and certainly when this ignorance is not excusable a person’s wonder may be considered inappropriate (or ‘foolish’; Hepburn 1980). For instance, should someone experience wonder at the fact that bachelors are not married, this wonder is foolish (Pedersen 2019: 190). But also, beyond logic, should someone (who ought to know better) be wonderstruck at discovering that people with a different ethnic background can be kind, this wonder can be called inappropriate, as it is based on perverse beliefs.

²⁶ As an anonymous reviewer noted, this would move into the pathological.

²⁷ Pedersen uses this term in an Aristotelian way, as the right mean between an excess and a lack or deficit, interpreted as a situation “where one’s wonderment is directed at the right person, object, or situation in the

The Importance of Wonder-Full Education for Human Flourishing

We have argued above that the ability to experience wonder, though not strictly necessary for human flourishing, can contribute to people's flourishing in a variety of ways, linked with both the satisfaction of objective goods, people's ability to interpret these in subjectively meaningful and objectively valuable ways, and the subjective evaluation people make of their own lives. We have further suggested that a sense of wonder is crucial to having a proper *sense* of our epistemic situation in the world, not just a purely intellectual understanding but an experience-based, affectively charged understanding, of the mystery of existence.

Education (in school and by parents) can contribute to the likelihood that children will later be able to lead flourishing lives in various ways. Various authors (White 2007, 2009, 2011; De Ruyter 2004, 2007; Wolbert 2018; Pedersen 2019; Kristjánsson 2020; Moore 2020) have explained why, so we limit ourselves to a very brief summary. Education can contribute to flourishing indirectly, e.g. by giving children access to the means to provide for themselves when they are adults, but also directly, in the sense that it fosters experiences and abilities that are intrinsically connected with human flourishing. It can contribute to children's flourishing in the here and now (something we have left out of our purview in this article) and to future flourishing; and it can do both of these by allowing children to participate in worthwhile and/or pleasant activities and enabling them to exercise the whole range of their abilities. An important contribution is made by fostering the *development* of those abilities – physical, emotional, moral, and cognitive, including reflective abilities and good judgement, or practical wisdom – because this will allow for greater enjoyment of these abilities themselves, better choices and decisions, and therefore a greater chance of successful participation in meaningful and valuable activities and practices. Obviously, a key way in which we may expect education to contribute to people's flourishing (both directly and indirectly) is by deepening and broadening their knowledge and understanding of the world – though it is conceivable that certain knowledge and understanding may detract from people's flourishing as well (see Schinkel 2021a: 96).

In light of the above, should education that aims to promote human flourishing also be 'wonder-full' education²⁸ (i.e. education that is both inspired by and aims to inspire wonder, in which this is conceived as central to the meaning of education)? In the introduction we mentioned two possible reasons why this might be so: firstly, it may be that having a sense of wonder as adults (possibly promoted by and/or refined due to education) contributes to flourishing itself; and secondly, it may be that fostering wonder in education increases the likelihood that education promotes flourishing.

To begin with the second possibility: it is clear that education can contribute to flourishing in indirect ways (e.g. by equipping people with the means to sustain themselves); so if our aim is to help people flourish in life, and if, by making education more hospitable to wonder, we increase the likelihood that education 'succeeds', we have reason to do so (Moore 2020: 77). And, at least in formal education, it does indeed seem to be the case that wonder increases children's intrinsic motivation to learn as well as their capacity to remember what they have learnt (Hadzigeorgiou 2012; Hadzigeorgiou et al. 2012), perhaps in part

right amount, and in the right time, and for the right purpose, and in the right way" (2019: 190).

²⁸ We take this term from Egan, Cant and Judson (Eds.) (2014).

because it seems to increase teachers' interest in their subject, their emotional involvement, and their authentic engagement with their own teaching (Gilbert and Byers 2017).

Moreover, education can also contribute to (the capacity for) flourishing more directly, and if we try to imagine what education for human flourishing would most likely look like, it is hard to conceive of this, whether in a formal education context or at home, apart from that particular kind of enchantment (cf. Kristjánsson 2020) or that particular form of the sense of importance (Schinkel 2021a: 47) that is wonder. If we want our children to live well and to develop capacities, dispositions and understanding and an outlook on life that support their living well, then we will want them to be able to notice and appreciate what is remarkable about the world and about life, and nurturing children's sense of wonder and attempting to evoke wonder are pre-eminent, natural ways to do so – it would in fact be hard to *avoid* wonder, if promoting such attentiveness and appreciativeness were one's aim. It stands to reason that if we promote wonder at (aspects of/phenomena in) the world we will thereby, generally speaking, promote children's appreciation of the world. But at the same time it is likely that they would also value the activity (whether specific educational activities or schooling in general) more in the context of which their wonder is evoked (Moore 2020: 77), and this may also well have an enduring effect on their flourishing. Louv (2010), for instance, offers many examples of people who as adults still find deep meaning and fulfilment in activities in nature that they were introduced to as children, and this is often connected with experiences of wonder they had as a child. These people were offered occasions to experience wonder when they were young – occasions to 'exercise' their sense of wonder – and this had a formative influence.

People's capacity to flourish depends both on moral and prudential qualities, on their ability to choose and act well both in terms of the good of others and in terms of their own good; both are fostered by an ability and inclination to wonder, from time to time at least, at and about oneself (one's convictions, choices and actions) and about the meaning of 'goodness' and the institution of morality as such. As in other educational domains, in moral and political education wonder can defamiliarize the familiar and thereby uncover baseless beliefs or arbitrary practices, and stimulate the search for better-founded beliefs and practices; and in many cases experiences of wonder will provide positive inspiration for this as well (see Schinkel 2021a: chs. 4 and 5 for extensive discussions of wonder and, respectively, moral and political education).

Combining the points made in the last couple of paragraphs: a teacher or parent that succeeds in evoking wonder in a bored, disengaged or even disillusioned child – in a particular subject domain, about their own place in society, or wonder at or about something else – has thereby succeeded, if only momentarily, in lighting a spark: the sense that there is *something that matters* has been revived. The spark requires kindling, of course, but then it is just possible that a fire will blossom.

We now turn to the other possibility, that having a sense of wonder as adults (possibly promoted by and/or refined due to education) contributes to flourishing itself, and that education that aims to promote flourishing should therefore also be 'wonder-full' education. We have already discussed the connections between wonder and flourishing, and concluded that wonder can – and it does not seem far-fetched to say: is likely to – contribute to people's flourishing in a number of ways. So, since our focus is on how education may foster children's ability to flourish as *adults*, the question that remains is to what extent the education they receive as children can influence adults' sense of wonder. Is it possible to

influence people's dispositions in this area – their 'proneness to wonder', what they wonder at and about, what form this wonder takes, whether this wonder is 'balanced', and whether it becomes dispositional in the strong sense we explained? These are empirical questions, and the evidence is lacking to answer them definitively. But plausible (auto)biographical evidence (such as that offered by Louv 2010) exists to suggest that childhood experiences can make a difference to what people wonder at and about, and to whether they perceive certain phenomena as 'wonderful' – and therefore often also as valuable and meaningful.²⁹ If so, educational activities clearly have a potentially lasting influence. It is also worth noting the common and plausible view that education (or what purports to be education) can and often does dull children's sense of wonder, which suggests the possibility of a negative influence and of the obligation to try to prevent this.

Furthermore, if formal education allows space for wonder-inspired teaching and learning – the latter for instance by giving children the opportunity to explore a range of activities and practices (White 2009: 432), exposing them to unfamiliar topics that fascinate their teachers, and to become 'experts' themselves in fields that fascinate them (Egan 2010; Berliner 2014; Trotman 2014: 30) – children are more likely to end up doing things they like, find meaningful, and are good at.

Finally, it seems plausible that parents and teachers can contribute to some extent to the form that children's sense of wonder takes: whether it becomes a 'balanced' sense of wonder, how children relate to their own sense of wonder, and perhaps even whether it becomes dispositional in a strong sense. In young children enchantment with the world seems so valuable, also from an educational perspective, that apart from cruel it would also be foolish to dampen it and to separate 'legitimate' wonder from fanciful or more fantasy-based forms. But arguably at some point such a distinction does come to matter, and it becomes legitimate, even necessary, to correct overly rosy pictures of the world and to foster world-oriented rather than (or at least alongside) fantasy-oriented wonder; and it seems plausible that parents and other educators commonly succeed in this (and perhaps often overshoot the mark by dulling the sense of wonder altogether). Explicit engagement with experiences of wonder, and with wonder-inspired questions about the world, and concerning meaning and purpose in life, would also seem to be a way in which parents and teachers can have a more enduring influence on the development of children's sense of wonder. It can increase children's awareness of those experiences and of their potential significance, and help them develop emotional and reflective capacities that enable them to respond to those experiences and build on them, so that they are not just passing sensations. In principle, education may even set children on a spiritual path of in which they learn to attend to the world in a receptive way, open to its remarkableness (though without losing their sense of realism), and aware of the limitations of our understanding of it. This will be the hardest to achieve, but its benefits for children's own (future) flourishing *and* the flourishing of others would be considerable.

²⁹ An anonymous reviewer suggested that many other (artists') autobiographies could be added. Evernden (1992: ch. 7) discusses the importance of children's experiences of 'otherness' in nature, mentioning among others poet Kathleen Raine (whose work is indeed suffused with a sense of mystery and wonder), who "speaks of her childhood experience of flowers overhanging her pram, and of her realization that 'in the manifold, the innumerable I AM, each flower was its own *I am*.'" (Raine 1977: 12, cited in Evernden 1992: 112), and the work of Cobb (1977), who studied autobiographies to investigate the significance of such experiences. We found Evernden's discussion of children's wonder and their experience of nature through Judson (2008).

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