'Not to escape the world but to join it':

Responding to Climate Change with Imagination not Fantasy

Summary

The work of climate scientists, demonstrating human-driven climate change, has not provoked the wide-spread and far-reaching changes to human behaviour necessary to avert potentially catastrophic environmental trajectories. It has not yet sufficiently been able to engage the individual and collective imagination. Drawing on Samuel Taylor Coleridge (1772-1834) and Iris Murdoch (1919-1999) we can distinguish two modes under which the human imagination can operate: in Murdoch's terms, these are 'imagination' and 'fantasy'. To relate imaginatively is to be willing to allow one's internal image of the world to be changed by what one encounters, while an outlook characterised by fantasy relates to the world as one would wish it were, rather than how it actually is. Fantasy, therefore, operates not only among those who deny climate change, but also among those who entertain the promise of a technological solution too optimistically. An imaginative outlook, in contrast, evaluates actions and patterns of behaviour in terms of their relation to a wider whole. This is necessary for providing the degree of agency required to step out of a cycle of ever accelerating production, which

*Author for correspondence

†

is explored in terms of an analogy to a discussion of revenge and forgiveness by Hannah Arendt (1906-1975). Ultimately, the need to engage the imagination is an opportunity as well as a challenge. To live imaginatively is fulfilling, and that is precisely what the challenges of climate change require.

Main Text

The STEM disciplines (science, technology, engineering and mathematics) rightly prize the quest for intellectual detachment and objectivity as part of their methods. Upon that rests much of their remarkable achievement in their respective domains. Among the recent findings of the natural sciences, little has greater bearing on the future of human wellbeing than work to measure and predict human-driven climate change and to discern its likely consequences, not least upon weather patterns, sea levels, the availability of drinkable water, crop and marine yields, human migration, and shifts in the prevalence of diseases. Engineers and technologists, for their part, are working on responses to reduce emissions of greenhouse gases and to sequester carbon dioxide. Some go further, proposing grander 'geo-engineering' interventions. In all of this, the commitment to intellectual detachment and objectivity is rightly valued, and yet, since a widespread response is called for in general human outlook and behaviour, the results of detached study need to translate into engaged action. The

findings of the sciences, and the proposals of engineers, need to enter into the human imagination, and that is the subject of this paper.

A colossal shift is called for. Participants at the twenty-first session of the Conference of Parties of the United Nations Framework on Climate Change (UNFCC COP 21), meeting in Paris in November 2015, forged a commitment hold 'the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels' [1]. They recognised that this will require a move to net zero emissions by sometime in the second half of the twenty-first century.[1] Writing in 2011, Anderson and Bows calculated the necessary change as a reduction in emissions of the order of 4-5% per annum, aggregated across all nations, following a peak in 2025 [3]. That would call for a reduction among developed nations of as much as 6-10% per annum [4]. As Allwood and others have demonstrated, a full gamut of responses will be necessary, including far reaching changes in the use and demand for

[1] 'In order to achieve the long-term temperature goal set out in Article 2, Parties… undertake rapid reductions… so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century' [2].

Phil. Trans. R. Soc. A.

materials, rather than improvements to efficiency that nonetheless remain within current patterns of life [5].

Coleridge on Imagination and Fancy

The human faculty of imagination has been a longstanding topic of philosophical fascination, not least because it stands at the intersection of perception, understanding and action, and for its capacity to relate past, present and future. To speak about imagination in that way, however, is already to identify it as something wider and more fundamental to human function than would be suggested by how we typically use the word today. In its contemporary, more restrictive sense, 'imagination' would belong to the domain of artistic creativity. On that view, a novelist would be 'imaginative' while she is writing her fiction but not, for instance, while she is driving her car. A sculptor would be imaginative in sculpting, but a member of the public would not necessarily be imaginative in viewing what he had made.

In contrast, within the broader philosophical account discussed in this paper, imagination is not seen as the preserve only of those working in the creative arts. Rather, imagination would be integral to every act of perception or decision. From that perspective, any claim for a clear divide between creative and non-creative enterprises (as employed above), would be dubious. The philosophy of imagination presented here would stress, instead, that every act of perception or understanding, and the inception of every action, is a creative matter.

Within English language writing, the pivotal figure for setting out such an account of imagination is Samuel Taylor Coleridge (1772-1834). Known as a writer of both poetry and prose, his 'The Rime of the Ancient Mariner' was published in 1798, as, with William Wordsworth, was the collection *Lyrical Ballads*. The *Biographia Literaria* of 1817 illustrates Coleridge's standing as one of the principal early mediators of Kantian and Romantic German philosophical traditions into British writing, in a work that spans literary criticism and autobiographical exploration.

Precedent for Coleridge's perspective on imagination is found in the work of Immanuel Kant (1724-1804),[2] but the Englishman stands as more than simply a conduit for that Continental thinker. Coleridge's contributions have remained a matter of fascination and inspiration to writers on the topic to this day.[3] Not least, Coleridge proposed his own distinctive terminology, distinguishing between the 'primary' and the 'secondary' imagination. The classic, although undeniably dense, discussion of this pairing comes in the thirteenth chapter of his *Biographia Literaria*:

> The imagination then I consider either as primary, or secondary. The primary imagination I hold to be the living power and prime agent of all human perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I AM. The secondary I consider as an echo of the former, co-existing with the conscious will, yet still as identical with the primary in the kind of its agency, and differing only in degree, and in the mode of its operation. It dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered

[2] As discussed in footnote below.
[3] In my own field, for instance, among contemporary philosophical theologians, particular attention to Coleridge on the imagination has been paid by John Milbank [6] and Douglas Hedley [7].

impossible, yet still at all events it struggles to idealize and to unify. It is essentially vital, even as all objects (as objects) are essentially fixed and dead [8].

By means of this distinction between the 'primary' and 'secondary' imagination, Coleridge was able not only to relate imagination to creative endeavours (closer to his secondary sense), but also to point to its role in all human perception, even calling imagination, in this 'primary sense', the 'living power and prime agent of all human perception'. Coleridge made this all-pervasive function of imagination foundational, and labelled 'secondary' what we might more narrowly associate with artistic imagination. He acknowledged its importance, but saw it as grounded in something far more constitutive of the human mind, namely that 'primary' sense of the imagination.[4] Important in both

---

[4] Kant was an important influence here, although Coleridge adapted his scheme creatively and considerably. In the *Critique of Pure Reason* (1781, second edition 1787, known as the *First Critique*), Kant described imagination (*Einbildungskraft*) as 'a faculty for representing an object even *without its presence* in intuition' – which is to say, even while it is not currently directly apprehended [9]. He distinguished between imagination in a 'reproductive' (*reproduktive Einbildungskraft*) and a 'productive' sense (*produktive Einbildungskraft*). The reproductive imagination is associated with the recall of what we have experienced but which no longer stands before us. As he put it in *Anthropology from a Pragmatic Point of View* (1798), this involves the 'derivative presentation' of an object 'which brings back to the mind an empirical apprehension' [10]. In this way, it is 'merely recollective'. In contrast, the productive imagination is 'inventive', and is the wellspring of creative

senses is the human imaginative ability to see a gathered whole among, and out of, an otherwise overwhelming diversity of perceptions and possibilities. As J. Robert Barth put it, 'we instinctively – even the least orderly or artistic of us – order our experience, creating meaningful wholes… We are,

thought. It too, however, is grounded in prior experience, in that it obtains 'the material for its images from the senses', through prior experience [11]. All the same, while the productive imagination draws upon prior experience, what it produces is 'original' [12], in a way in which that which is presented by the reproductive imagination is not. Beyond such empirical or psychological considerations, Kant's mature writing is centred around consideration of what might stand as the conditions for thought as such. Here (in this 'transcendental' register, in the first *Critique*), he again called upon imagination, as being able to bridge the gap between empirical sensation and the *a priori* categories and structures within which thought unfolds [13]. Significantly, Kant described this act of imagination, which undergirds the possibility of experiencing and understanding the world, as an exercise of *productive* imagination [14]. Finally, we should note the importance of imagination for Kant in the process of drawing together the 'manifold' aspects of the appearances of things into our unified 'image' of the whole [15] [16]. For a survey of Kant's approach to the function of the imagination, see Samantha Matherne's recent account [17]. With this sketch of Kant's account of the imagination in place, we can see that Coleridge drew more upon Kant's productive, rather than reproductive, imagination in writing about both his 'primary' and 'secondary' senses of imagination. Beyond that, his 'primary imagination' seems function in a fashion analogous to Kant's transcendental operation of the productive imagination.

all of us, shapers of our experience of what would otherwise appear a chaotic world around us' [18]. Following from that, in the 'secondary' sense, 'imagination allows the artist not only to perceive the world in an orderly way, but also to express that order in a new medium, be it paint or marble or, for the poet, words' [19].

This account of imagination, drawn from Coleridge, provides the foundation for what follows in this paper. In particular, we will consider what it offers for understanding how human beings respond to scientific and technological conjectures in relation to climate change, and to material demand reduction more specifically. Crucially, while the above discussion of imagination has focussed on how this faculty animates perception, thought and action, this tradition also identifies an attenuated form of imagination, which can impede them. Here, again, Coleridge provides terminology that has been adopted, with a little modification, by subsequent thinkers. Immediately after the discussion of primary and secondary imagination quoted above, he turned to what he called *fancy*. His definition there provides relatively little precision. Fancy resembles imagination but it lacks the creativity of imagination at its fullest. In particular, Coleridge saw fancy as confined within the bounds of what one has had already encountered: within the 'fixities and definites' of the 'ordinary memory' from

which fancy 'must receive all its materials ready made'.[5] Fancy, for Coleridge, is an enervated form of imagination. It is a shuffling of the deck of memory, rather than something genuinely creative. Here, Coleridge acknowledges some of what previous philosophers had identified in imagination as a cause of distraction and error,[6] but by giving it a separate name ('fancy'), distinct from imagination,

---

[5] Capitalisation modernized. There is again a precursor to this discussion in Kant, who wrote about 'fancy' in *Anthropology from a Pragmatic Point of View* as 'the power of imagination' to produce images in an 'involuntary' fashion [20]. His contrast is between the choice involved in the imagination properly so called [21], and the wandering of fantasy, such that while we gladly play with the imagination, fantasy plays with us [22]. In this, he considered fancy to bear at least a trivial level of association with dishonesty and lying [23].

[6] Perhaps surprisingly, Kant stands as an example. After having allocated such a significant place for imagination in his primarily epistemological *First Critique*, Kant significantly underplayed its significance in the more specifically ethical *Second Critique* (of 'Practical Reason', 1788) [24]. Bernard Freydberg notes that Kant, on several occasions, 'choose to exclude or to denigrate imagination's role in key sections of the *Critique of Practical Reason*' [25], citing two passages in particular (V, 69 and V, 121). He interprets Kant's motivation here as wishing to avoid misunderstanding. The passages involving imagination in the earlier *Critique* were some of those Kant considered to have been most significantly misunderstood. Because of that, he distanced himself from a comparatively expansive invocation of imagination in the later ethical work, both by means of those 'denigrations' and, more generally, by giving the subject of imagination 'no textual

Coleridge was also able to emancipate what he took to be the positive senses and roles of imagination from previous criticisms.

As a term, however, 'fancy' has an archaic ring to it and, in any case, what we might understand by this poor relation to the imagination requires further exploration. At this point, therefore, we can update our terminology, and expand our definitions, by turning to Iris Murdoch, who distinguished not between imagination and fancy, but between imagination and *fantasy*.[7]

Murdoch on Imagination and Fantasy

Like Coleridge, Murdoch (1919-1999) also spanned the worlds of philosophy and literature, as the author of more than twenty-five novels (starting with *Under the Net*, published in 1954) and several works of philosophy, *Metaphysics as a Guide to Morals* (1992) being her most extended work.

prominence'. All the same, Freydberg argues, given the prominence of imagination in the first *Critique*, and in as much as the second *Critique* is part of the same intellectual project, the ethics of the second *Critique* must also rest upon an important role for the imagination. Not least, 'Judgement *must* involve synthesis if it to effect either morality or experience of nature, so it *must* involved imagination; the Kantian philosophy requires this conclusion' [26].

[7] Roger Scruton is another, a more recent, philosopher who has deployed a distinction between imagination and fantasy [27] [28].

Educated at the Universities of Oxford and Cambridge, she was fellow in philosophy at St Anne's College, Oxford from 1948 until 1963. Also like Coleridge, and Kant before him, Murdoch located imagination in every act of perception. 'The world which we confront is not just a world of "facts"', she wrote, 'but a world upon which our imagination has, at any given moment, already worked' [29]. In saying this, she was not reducing our understanding of the world to mere fiction or projection. Her point is that we only understand the world in as much as it has entered into our apprehension: in as much as it has been taken up into our imagination, or overarching image of reality. In this way, and again like Coleridge, Murdoch did not see the exercise of imagination as an overlay that obscures the world, but as a matter of entering into reality, so that it may enter into us, as represented by internal images.

Fundamental to Murdoch's vision here is her contention that to know and act imaginatively is to be willing to turn towards the world, so as to receive from it. She saw this as far more demanding than we might immediately suppose. She recognised that the exercise of imagination, although ubiquitous,

is not always so healthy and truth-seeking. Its 'working' can easily veer towards fantasy, which would then 'constitute a barrier to our seeing "what is really there"' [29].[8]

---

[8] A note is due on J. R. R. Tolkien's strikingly different use of the word fantasy in his influential essay 'On Fairy Stories' [30], which is widely considered to be his theological prose masterpiece. It constitutes a *defence* of fantasy, and may therefore seem to be at odds with Murdoch (for instance), and an account of imagination as productive and fantasy as obscuring. This, however, turns out to be a distinction without a difference. For her part, Murdoch recognised the possibility of fluidity in labelling what she set out to praise and to warn against, and was willing, for instance, to describe fantasy as 'bad imagining' [31]. Tolkien, in turn, recognised that his positive use of the word fantasy was provocative: 'Imagination has often been held to be something higher than the mere image-making, ascribed to the operations of Fancy' [32]. In order to reclaim 'fantasy' as a name for the positive power of imagination, or some aspects of it, Tolkien wrote that he may need 'to arrogate to myself the powers of Humpty-Dumpty, and to use Fantasy for this purpose' [33]. All the same, he favoured 'fantasy' because of the sense that it flagged 'a quality of strangeness' of a sort that could arrest our attention (on which, see Alison Milbank [34]). Having chosen this term, in his essay Tolkien discusses under the banner of 'fantasy' both what Murdoch claimed positively for the imagination (such as seeing things 'apart from ourselves' – as 'freed from the drab blur of triteness and familiarity' and 'possessiveness' [35]) and negatively for fantasy (in her sense): without attention to truth, Tolkien wrote, fantasy will 'languish… [and even] perish, and become Morbid Delusion' [36]. That is to say, fantasy in his sense can become fantasy in Murdoch's. Etymologically, we might note, the English word 'imagination' derives from the Latin *imaginatio* and 'fantasy' from the Greek *phantasía*. In their original use in those languages, the two words are largely cognate, *imaginatio* being the natural Latin word with which to translate *phantasía*.

Imagination involves a disposition *towards* that which is other than us, and a certain honesty before it. In contrast, to operate according to a mode of fantasy is to be turned inwards.[9] Human beings, Murdoch thought, are often 'fabricating' and are 'usually self-preoccupied'. That subverts the proper operation of the imagination, tending instead towards the weaving of a 'falsifying *veil* which partially conceals the world' [41]. Instead of the humble curiosity about reality (characterised by 'objectivity and realism'), associated with imagination, we can be occupied in 'fantasies and reveries'. Which way one is disposed, one way or the other, is 'profoundly connected with our energies and our ability to choose and act.'

The language of construction here – of 'fabricating an anxious, usually self-preoccupied, often falsifying *veil*' – is significant. Like Coleridge, Murdoch saw all perception and thought as a

---

[9] One can see here a parallel with the persistent tradition among Christian theologians to describe the human flaw as a turning in upon oneself. The roots of the idea are in Augustine of Hippo [37] [38]. The classic description comes from Luther, who associated an evil inclination with the human heart as *incurvatus in se*: curled in upon itself [39]. The pagan neo-Platonist Plotinus, a significant influence on Augustine, had already diagnosed evil as springing from people 'wishing to belong to themselves' [40].

profoundly active matter. The difference between its operation according to imagination and fantasy is the difference between something active in its imaginative embrace of reality, with an associated willingness to be challenge by it, and something active in the fabrication and veil-weaving of fantasy. That, in turn, makes a life of 'dull fantasy' therefore an enclosed one, of one's own construction: it is to '*make* a small personal world' [42]. Imagination, on the other hand, involves willingness to 'see and take pleasure' in what is precisely other than oneself. These themes recur, entwined, across Murdoch's body of essays, for instance when she distinguishes between 'obsessive, self-enclosing' fantasy, and imagination, as 'the ability to see the other thing, what one might call, to use those old-fashioned words, nature, reality, the world' [43].

Imagination, Fantasy and Techno-optimism

Neither the findings of the natural sciences, nor the offerings of technology, as available now or as anticipated in the future, stand before us, as Murdoch put it, simply as 'a world of "facts"', but rather as 'a world upon which our imagination has, at any given moment, already worked' [44]. They are received by the active mediation of imagination, either honestly or fantastically, both at the level of the individual and of the wider culture. We might ask, then, what it would mean to react to proposed technological responses to climate change (including ones relating to patterns of demand for materials) in a mode of either imagination or fantasy.

The most obvious example of the power of imagination and fantasy may be climate change denial. The findings of climate science, however objective they may be, clearly do not settle the matter for many. By some, certainly, these findings are received into their image of reality and come to inform it; for others they are not. Following Murdoch, we can call the human power to paint an internal picture of external reality *imaginative* if it is willing to be determined by what we encounter. In contrast, we can call *fantastic* if it tends to paint an internal representation of external reality according how one wishes that reality was. Climate change denial, on the judgement of the overwhelming majority of authorities in this field, would be an exercise in fantasy. It has a dream-like quality, which aligns with another comment of Murdoch's:

> We are not isolated free choosers, monarchs of all we survey, but benighted creatures sunk in a reality whose nature we are constantly and overwhelmingly tempted to deform by fantasy. Our current picture of freedom encourages a dream-like facility; whereas what we require is a renewed sense of the difficulty and complexity of the moral life and the opacity of persons [45].

To speak of those who deny human-driven climate change as 'dreaming' is obvious, but it may serve as too easy and comforting an example of imagination-become-fantasy in these matters. A dream-like attitude to reality is potentially just as much at play among those who take the reality of man-made climate change entirely seriously, but whose practical outlook is rendered quietist by a hope in future scientific and technological 'fixes' for those threats.

Murdoch associated fantasy with dreaming. Earlier in the twentieth century, C. S. Lewis (1898-1963) similarly related daydreaming to moral achievement. In a letter written in 1930, he considered the danger of fantasising about doing the right thing, or about having done it, as too easily substituting for the action itself.

> We read of spiritual efforts, and our imagination makes us believe that, because we enjoy the idea of doing them, we have done them. I am appalled to see how much of the change which I thought I had undergone lately was only imaginary. The real work seems still to be done. It is so fatally easy to confuse an aesthetic appreciation of the spiritual life with the life itself – to dream that you have walked, washed, and dressed, and then to find yourself still in bed [46].[10]

Lewis noted the self-satisfaction that can belong to the fantasy of a daydream, and can provide a psychological reward without having undertaken the act for which the commendation would properly be due.[11] This underlines the point that the well-intentioned person, indeed perhaps especially the person who is aware of the need to respond to climate change and is enthusiastic about technological developments in that area, may be especially prone to substitute the daydream for reality. Rather than moving us to action, 'fantasising' about some putative promised or envisaged capability for

---

[10] Lewis discusses the distinction between imagination as daydream or fantasy, and imagination as invention in *Surprised by Joy* [47], adding a third category ('joy'), and which features prominently in that work.

[11] Lewis's attention to the deleterious effects of fantasising about doing *good* is unusual. Work on fantasy in ethics and moral psychology has typically concentrated on the effects of fantasising about harming others. For a consideration of the moral status of fantasing about wrongdoing, see Aaron Smuts [48], where he distinguishes 'willful imagination or fantasy', 'guided imagination via representations: fiction, narrative, and pornography', and 'dreaming' [49].

mitigation can serve as a distraction from making the kinds of changes that are demanding and yet also within one's power. Such changes would require significant shifts in patterns of behaviour, and this again distinguishes imagination from fantasy. Sociologists have labelled this phenomenon as one of techno-optimism. In the words of John Barry, it is the belief that technology will function today as the lance of Peleus functions in Greek myth, which could 'heal the very wounds it inflicted' [50]. This techno-optimist outlook may be as simple as taking ones bearings from all that is most hopeful in discussions of technological possibilities for mitigating climate change, while not paying equal attention to the less hopeful, or indeed simply most likely, trajectories that technology, politics and the economy might take.

Characteristically, as defined here, the response of fantasy is to suppose that one can maintain the status quo: fantasy is a path of least resistance. Approached in this way, the prospect of a solution in the future will be taken as justification for a lack of change to behaviour now. It is to live according to the way we would like the world to be, with technological solutions delivering what we would want them to deliver, rather than according to how things currently are, and may well remain. We see here the tendency of fantasy to invest highly in the will: to imagine that the world is (or soon will be) malleable to human intention (as 'monarchs of all we survey' as we have read from Murdoch). In such ways, then, the dangers of fantastic thinking apply just as much to the well-meaning, green-thinking person, as to someone who denies climate change altogether.

Imagination, Fantasy and Agency

Imagination and fantasy, then, are involved with action, and not only with perception. They therefore offer two different characterisations of what it means to act. To meet the world with imagination is to meet it in such a way as to be drawn on to engagement with it. Murdoch wrote on this territory in 'The Sovereignty of Good over other Concepts': 'We use our imagination not to escape the world but to join it, and this exhilarates us because of the distance between our ordinary dulled consciousness

Phil. Trans. R. Soc. A.

[i.e. one operating according to fantasy] and an apprehension of the real' [51]. In terms of involvement with the world, fantasy is associated with sloth and disengagement. It is important to appreciate, however, what this does *not* mean in relation to our topic. A 'fantastic', disengaged outlook does not correspond to a reduction of human action – or of producing and polluting – but to a lack of attention to the setting and consequences of those actions, and to a corresponding lack of self-criticism.

Fantasy tends to project and paper over, while imagination receives and responds. For Kant, as for Coleridge, as we have seen, a capacity to survey and integrate is central to the power of imagination. It relates, for instance, to the ability to envisage what is before us as an integrated entity, say as a book and not simply as smudges of colour, and as a whole that exceeds what I can take in at any moment, for instance in apprehending the book not only in terms of the cover and sides that I can see, but as also having a back and other sides, which I cannot. More generally, imagination is integrative in the sense of conceiving of one's actions within the web of a greater whole, while the impulse of fantasy is to view them as isolated and cut off. Imagination understands perceptions and actions in terms of their connection to a whole, while fantasy does not.

One way into this relation of imagination or fantasy with divergent forms of agency is to consider them in terms of associated forms of creativity and freedom. As a start, drawing on Murdoch, as we have seen, an exercise of creativity and freedom characterised by fantasy will tend to take the form of an imposition of the will upon what is external to us. In contrast, an imaginative exercise of creative freedom will be cognisant, even respectful, of the material with which it works. Approaching this in terms of an 'artistic' sense of imagination, the exercise of freedom encountered there, with its genuine spark of novelty, typically sits alongside a simultaneous attention to the 'material' with which one is working, whether we interpret 'material' in terms of stone and the chisel, or words and grammar, or in the sense of working with the 'material' of the tradition that one has inherited [52] [53]. Imaginative creativity is deeply attentive, for all it is also concerned with creating that which is new.[12] In a more general sense, as we have seen, (relating to the primary imagination, as common to

---

[12] Murdoch discusses this briefly, writing both that 'This sense of distance and otherness belongs to the good artist as it belongs to the religious man… Imagination is a kind of freedom, a renewed ability to perceive and express the truth' [54] and that 'Freedom is not strictly the exercise of the will, but rather the experience of accurate vision which, when this becomes appropriate, occasions action' [55].

all human perception, thought and action), to proceed with imagination rather than fantasy is to attend to, think through, and act in terms of, what is real, rather than what one might wish were real. To perceive, think and act imaginatively, rather than fantastically, is therefore *both* to let what lies beyond the ego make a greater claim upon oneself, and to offer that reality something more creatively transformatory in return: it is to be simultaneously both more faithful to reality as it currently stands, whether we like that or not, *and* more able to transcend the status quo. Crucially for our purposes, the ability to take a step back, to assess, and consequently to change or stop, belongs more to imagination than to fantasy.

Action that is driven by fantasy, which carries on relentlessly because the mind absorbed in fantasy does nothing to check it, is obviously active and yet in another sense it is peculiarly passive. Fantasy may be characterised by a certain disengagement, but our problem is not, in fact, that we live lives of calm and restful retreat from action, or even lives of indolent lack of activity – would, in a sense, for the good of the planet, that we did – but rather that we are *incessantly* building, consuming, travelling, and so on. A fantasising outlook is frequently today one of living frantically but without attention. In contrast, it falls within the domain of true imagination to be capable of a form of restraint that is nonetheless strikingly *inceptive*, for all it is a stepping back from action.

A passage of Hannah Arendt (1906-1975) throws light on this. Arendt was a Jewish philosopher born in Germany, who spent much of her immensely productive writing life in the United States of America. In her treatment of forgiveness and agency in *The Human Condition* (published in 1958), she contrasts forgiveness with revenge, and in this we see something profoundly similar to the distinction between the passive activity of fantasy and the potentially active restraint of the imagination:

> vengeance… acts in the form of re-acting against an original trespassing, whereby far from putting an end to the consequences of the first misdeed, everybody remains bound to the process, permitting the chain reaction contained in every action to take its unhindered course. In contrast to revenge, which is the natural, automatic reaction to transgression and which because of the irreversibility of the action process can be expected and even calculated, the

act of forgiving can never be predicted; it is the only reaction that acts in an unexpected way and thus retains, through being a reaction, something of the original character of action. Forgiving, in other words, is the only reaction which does not merely re-act but acts anew and unexpectedly, unconditioned by the act which provoked it and therefore freeing from its consequences both the one who forgives and the one who is forgiven [56].

Vengeance, Arendt comments, would seem to be supremely active, and it is taken as such by those who inhabit its 'macho' ambit. However, as an action it is always a 're-action' and, as such, it 'remains bound to the process' to which it belongs. In contrast, although forgiveness is a form of cessation, it always possesses 'something of the original character of action'. Consequently, forgiveness (which refrains from carrying out the act of revenge) requires and exhibits an even higher pitch of agency than does revenge, for all such revenge issues in an act – a violent act in some sense – while forgiveness forgoes that action.

The parallels with imagination and fantasy are not difficult to see. Imaginative agency has something of the same character of novelty and creativity – of the irruption of the new – which is so clearly seen

in the person who forgives.[13] The rut of fantasy, like revenge, is characterised by an action is robbed of its agency, while imagination, like forgiveness, is characterised by an agency capable of restraining action. Similarly, people fantasise about revenge, while forgiveness requires a form of moral imagination.

Considered in terms of forms of agency, the company, the CEO, the architect, who builds a skyscraper ten stories higher than the previous local record may be engaged in a Herculean labour, but in another sense (as opened up by Arendt's analysis), such labour is not as creative, or as much characterised by agency, as that of the person who is able to think beyond the deeply-worn groove of the pursuit of tallness. The acts most characterised by agency today, in view of impending climatic disaster, would be those characterised by restraint, for instance by simplicity, and the innovativeness that could take us beyond a paradigm of 'more is better', or the use of the same materials, in the same

---

[13] When Arendt writes that 'the act of forgiving can never be predicted' we might want to add a caveat, in that forgiveness need not have a 'from nowhere' quality: it need not spring from unconditioned will and, indeed, is not likely to do so. The note of radical newness that comes with forgiveness is radical also in the sense of being 'rooted' in a life and character that can properly be said to have prepared for it. The act of forgiveness cannot be 'predicted' in the sense that it remains unnecessitated and free, but it is typically 'fitting' to the person from whom it comes, not random. Here, moral freedom is akin to the freedom of the trained artist: perhaps a dancer for instance, who can dance freely because of, and not in spite of, arduous preparation.

way as before, only in larger quantities. This requires agency guided by the imagination, both in the sense of the capacity for the new, and in the sense of a willingness to let the reality of things bear upon us – to let it form its image within us – rather than to remain in the cocooned internality of fantasy, be it ever so busy in its 'productivity'.

The Significance of Artistic Imagination

Across Murdoch's various discussions of the themes we have considered, a broadly artistic frame of reference is usually in play. As herself a prolific and successful writer of fiction, her concern was frequently with imagination and fantasy as they operate in the labours of the novelist, expressed in what he or she produces. Nonetheless, over and beyond that literary background, Murdoch saw the capacity for imagination and fantasy as fundamental parts of the human makeup. While, for instance, she could write about 'creative imagination and obsessive fantasy' as 'very close almost indistinguishable forces in the mind of the writer' (who must, therefore, always 'play with fire') [57], in other discussions she clearly saw these two tendencies at play in all human dealings with the world. Indeed, one of the reasons that she though that it matters what sort of imaginative (or fantastical) literature someone reads is its influence on his or her all-pervasive imaginative engagement with the world the rest of the time. As she put it, if the 'quality of consciousness matters, then anything which alters consciousness in the direction of unselfishness, objectivity and realism is to be connected with virtue' [58]. Imagination involves attention to other people (and other places, cultures and outlooks) in their genuine otherness, while fantasy works so as to assimilate them to ourselves and our own purposes.

> I think good art is good for people precisely because it is not fantasy but imagination. It breaks the grip of our own dull fantasy life and stirs us to the effort to true vision. Most of the time we fail to see the big wide real world at all because we are blinded by obsession, anxiety, envy, resentment, fear. We make a small personal world in which we remain enclosed. Great

art is liberating, it enables us to see and take pleasure in what is not ourselves. Literature stirs and satisfies our curiosity, it interests us in other people and other scenes, and helps us to be tolerant and generous [59].

The artistic products of imagination are significant, therefore, and not least for their power to educate the clear-sighted operation of outward-turned imagination, over inward-turned fantasy. Fiction can open the reader to other points of view, not simply in the sense of furnishing new ideas to consider, but also in the sense of educating us that other people are genuinely *other*, and occupy alternative vantage points. As Martha Nussbaum has written, even something as basic as being a competent and decent citizen requires the 'narrative imagination' to be able 'to think what it might be like to be in the shoes of a person different from oneself' [60]. This has traditionally been fostered through literary fiction and other forms of storytelling, as an integral part of education [61].

This is primarily a philosophical essay, and it is not the purpose of this paper to explore the role that works of creative imagination might play in relation to climate change and material demand reduction. That there is a role for them, however, is clear, since simply presenting the facts of the case has clearly not been enough to win thoroughgoing assent: not, for instance, in the United States

[62].[14] One response would be to use imaginative forms to present an anticipated vision of the potentially cataclysmic results of further climate change, as seen in the sub-genre of 'climate change fiction', which is often apocalyptic in tone [64]. There is an argument to be made, however, that the human will is better stirred to radical change by positive attraction than by negative aversion. Such a proposition lies behind Augustine of Hippo's provocatively framed moral injunction of *Dilige, et quod vis fac*: 'love [rightly], and do what you will' [65]. Changes of behaviour, on this view, stem more fundamentally from a reorientation of what one loves or esteems, rather than from a string of commands or threats. The challenges is to find ways to present alternative ways of living (not least in terms of material consumption), with lower impact on the climate, as genuinely attractive, rather than simply as a bitter pill to swallow.

Conclusion

---

[14] In a recent study, James Painter described reluctance to attribute climate change to human actions as 'predominately an Anglo-Saxon phenomenon' [63].

Phil. Trans. R. Soc. A.

Scientific and technological responses to climate change are by no means deserving of dismissal: far from it. They are, however, only part of the solution, and they can be received as much in a spirit of fantasy as of imagination. Fantasy would seize upon them as a 'magic bullet', lying just around the corner, absolving us from the sort of action now that would require a substantial change of life, not least in the form of restraint. That, as we have seen, demands imagination.

The need to engage the imagination when it comes to mitigating climate change faces us as a challenge. Widespread shifts in patterns of behaviour, for instance in patterns of consumption, will only follow if the imagination is won over. This is a challenge – indeed a difficult challenge – and yet the role of the imagination here is at the same time an opportunity. We might recall three aspects of imagination which this paper has considered: that to respond to the world imaginatively is to be open to reality around us, that the imagination tends towards action, and that we are talking here about a fundamentally integrative faculty, able to consider matters as a whole. Fantasy might shy away from such dispositions, but there is also reason to suppose that embracing them makes for human fulfilment. In this sense, whatever the resistance we might find in the tendency towards fantasy, behaving imaginatively is ultimately more rewarding.

The work of writers such as Matthew Crawford [66] and Kate Fletcher [67] [68], who has contributed to this number of *Philosophical Transactions A*, attests to the satisfaction that people find in what the former calls 'working with your hands' and the latter 'the craft of use'. Theirs is a vision of a regained proficiency in dealing with the objects and materials that support our lives, and of their repair and reuse. It is imaginative in each of the senses just mentioned: it pays attention, it involves agency, and it is fundamentally integrative. This local dimension, worked out at the level of individual households, is not the only level where imagination is called for. Properly imaginative responses, in the sense described here, are needed at national and international levels, and in the corresponding democratic decisions of the populous who endorse or reject particular parties and their platforms. It is, however, at the level of the individual and household that people can take what the scientist and the engineer is saying, quite literally, into their own hands. Far from delegating responsibility for dealing with climate change to engineers, the perspective that Crawford and

Fletcher advocate seeks to appropriate a little of the engineers' ingenuity for the population more widely. This offers what the quotation from Augustine above suggested we need: a vision that is genuinely attractive, and not simply a burden or a duty. It is attractive because it calls for imagination, since the exercise of imagination, in the broad sense described in this paper, is so integral to what it means to be human.

References

1. 'Paris Agreement' 2015. Article 2.1a. United Nations Treaty Collection. (https://treaties.un.org)

Phil. Trans. R. Soc. A.

2. 'Paris Agreement' 2015. Article 4.1. United Nations Treaty Collection. (https://treaties.un.org)

3. Anderson K, Bows A. 2010. Beyond 'dangerous' climate change: emission scenarios for a new world. *Phil Trans R Soc A* **369** 20-44. 37. (http://dx.doi.org/10.1098/rsta.2010.0290)

4. Anderson K, Bows A. 2010. Beyond 'dangerous' climate change: emission scenarios for a new world. *Phi. Trans R Soc A* **369**, 20–44. 33-36. (http://dx.doi.org/10.1098/rsta.2010.0290)

5. Allwood JM, Ashby MF, Gutowski TG, Worrell E. 2011. Material efficiency: A white paper. *Resources, Conservation and Recycling* **55**. 362–81. (http://dx.doi.org/10.1016/j.resconrec.2010.11.002)

6. Milbank JA. 1987. Divine Logos and Human Communication: A Recuperation of Coleridge, *Neue Zeitschrift für Systematische Theologie und Religionsphilosophie* **29**, 56-74.

7. Hedley D. 2009. *Coleridge, Philosophy and Religion: Aids to Reflection and the Mirror of the Spirit*. Cambridge: Cambridge University Press.

8 Coleridge ST. 1907. *Biographia Literaria*. Shawcross J, editor. London: Oxford University Press. Vol. 1. 202.

9 Kant I. 1998. *Critique of Pure Reason*. Guyer P, Wood AW, translators. Cambridge: Cambridge University Press. B151. 256. Emphasis in original.

10. Kant I, Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:167. 278.

11. Kant I. Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:168. 278-9.

12. Kant I. Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:167. 278.

13. Kant I. 1998. *Critique of Pure Reason*. Guyer P, Wood AW, translators. Cambridge: Cambridge University Press. B151-2. 256-7.

14. Kant I. 1998. *Critique of Pure Reason*. Guyer P, Wood AW, translators. Cambridge: Cambridge University Press. B152. 257.

15. Kant I. 1998. *Critique of Pure Reason*. Guyer P, Wood AW, translators. Cambridge: Cambridge University Press. A101. 229-30.

16. Kant I. 1997. Metaphysics L1 Lectures. In: *Lectures on metaphysics.* Ameriks K, Naragon S, translators and editors. Cambridge: Cambridge University Press. 28:235-6. 53-5.

17. Matherne S. 2016. Kant's Theory of the Imagination. *Routledge Handbook of Philosophy of Imagination*, Kind A, editor. London: Routledge. 55-68.

18. Barth JR. 2001. *The Symbolic Imagination: Coleridge and the Romantic Tradition*. New York: Fordham University Press. 18.

19. Barth JR. 2001. *The Symbolic Imagination: Coleridge and the Romantic Tradition*. New York: Fordham University Press. 19.

20. Kant I. 2007. Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:167. 278.

21. Kant I. Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:175. 284.

22. Kant I. Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:175. 285.

23. Kant I. Anthropology from a Pragmatic Point of View. In: *Anthropology, History, and Education*. Zöller, G, Louden, RB, editors. Gregor M, translator. Cambridge: Cambridge University Press. 7:180. 289.

24. Kant I. 1999. Critique of Practical Reason. In: *Practical Philosophy*. / Gregor MJ, translator and editor. Cambridge: Cambridge University Press.

25. Freydberg B. 2005. *Imagination in Kant's Critique of Practical Reason*. Bloomington: Indiana University Press. 126.

26. Freydberg B. 2005. *Imagination in Kant's Critique of Practical Reason*. Bloomington: Indiana University Press. 127. Emphasis in the original.

27. Scruton R. 2000. *Modern Culture*. London: Bloomsbury.

28. Scruton R. 1983. Fantasy, Imagination and the Screen. *Grazer Philosophische Studien*. **19**, 35–46. (http://dx.doi.org/10.5840/gps19831918).

29. Murdoch, I. 1997. The Darkness of Practical Reason. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 199.

30. Tolkien JRR. 1983. On Fairy-Stories. In: *The Monsters and the Critics and Other Essays*. Tolkien C, editor. London: George Allen and Unwin, 1983. 109-161.

31. Murdoch I. 1997. The Darkness of Practical Reason. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 198.

32. Tolkien JRR. 2001. On Fairy Stories. In: *Tree and Leaf*. London: HarperCollins. 47.

33. Tolkien JRR. 2001. On Fairy Stories. In: *Tree and Leaf*. London: HarperCollins. 139.

34. Milbank A. 2009. *Chesterton and Tolkien as Theologians*. London: T&T Clark.

35. Tolkien JRR. 2001. On Fairy Stories. In: *Tree and Leaf*. London: HarperCollins. 146.

36. Tolkien JRR. 2001. On Fairy Stories. In: *Tree and Leaf*. London: HarperCollins. 144.

37. Augustine of Hippo. 2003. *City of* God. Bettenson H, translator. London: Penguin. Book 14, chapter 28.

38. Augustine of Hippo. 2002. Literal Commentary on Genesis. In: *On Genesis*. Hill E, translator. Hyde Park, NY: New City Press. XI.15.20.

39. Luther M. 1938. *Der Brief an die Römer* [Lectures on the Epistle to the Romans]. In: *Martin Luthers Werke*. Vol. 56. Ficker P, editor. Weimar : Böhlau. 356.

40. Plotinus. 1984. *Ennead*. Vol. 5. Armstrong AH, translator. Cambridge, MA: Harvard University Press. V.1(10).1.

41. Murdoch I. 1997. The Sovereignty of Good over other Concepts. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 369. Emphasis in the original.

42. Murdoch I. 1997. Literature and Philosophy. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 14-15. Emphasis added.

43. Murdoch I. 1997. Art is the Imitation of Nature. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 225.

44. Murdoch I. The Darkness of Practical Reason. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 199.

45. Murdoch I. 1997. Against Dryness. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 293.

46. Lewis CS. 1979. *They Stand Together: The Letters of C.S. Lewis to Arthur Greeves*. Hooper W, editor. New York: Macmillan.

47. Lewis CS. 155. *Surprised by Joy: The Shape of my Early Life*. London: G. Bles. 15-16.

48. Smuts A. 2016. The Ethics of Imagination and Fantasy. *Routledge Handbook of Philosophy of Imagination*, Kind A, editor. London: Routledge. 380–91.

49. Smuts A. 2016. The Ethics of Imagination and Fantasy. *Routledge Handbook of Philosophy of Imagination*, Kind A, editor. London: Routledge. 384-9.

50. Barry J. 2016. Bio-fuelling the Hummer? Transdisciplinary thoughts on techno-optimism and innovation in the transition from unsustainability. In: *Transdisciplinary Perspectives on Transitions to Sustainability*. Byrne E, Mullally G, Sage, C, editors. London: Routledge. 106-123. 109.

51. Murdoch I. The Sovereignty of Good over other Concepts. *Existentialists and Mystics*. Conradi P, editor. 374.

52. Collingwood, RG. 1925. *Outline of a Philosophy of Art*. London: Oxford University Press.

53. Collingwood, RG. 1938. *The Principles of Art*. London: Oxford University Press.

54. Murdoch I. 'Art is the Imitation of Nature', *Existentialists and Mystics*. Conradi P, editor. 225.

55. Murdoch I. 'On "God" and "Good"', *Existentialists and Mystics*. Conradi P, editor. 354.

56. Arendt H. 1998. *The Human Condition*. Second edition. Chicago: University of Chicago Press, 240-41.

57. Murdoch I. 1997. Literature and Philosophy. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 11.

58. Murdoch I. 1997. Sovereignty of Good. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 369.

59. Murdoch I. 1997. Literature and Philosophy. *Existentialists and Mystics*. Conradi P, editor. Harmondsworth: Penguin. 14-15.

60. Nussbaum MC. 2010. *Not for Profit: Why Democracy Needs the Humanities*. Princeton: Princeton University Press. 95-6.

61. Nussbaum MC. 1995. *Poetic Justice : The Literary Imagination and Public Life*. Boston: Beacon Press.

62. Ipsos Mori. 2014. 'Global Trends 2014' (http://www.ipsosglobaltrends.com/environment.html). Cited in 'Where in the World is climate change denial most prevalent?'. *New York Times*, 11 December 2011.

63. Painter J. 2011. 'Poles Apart: The international reporting of climate scepticism'. Oxford: Reuters Institute for the Study of Journalism.

64. Ullrich JK. 2015. 'Climate Fiction: Can Books Save the Planet?' *The Atlantic*. 14 August 2015.

65. Augustine of Hippo. 2008. *Homilies on the First Epistle of John*. Ramsey B, translator and editor. Hyde Park, N.Y.: New City Press. 7.8. 110.

66. Crawford M. 2010. *The Case for Working with Your Hands: Or Why Office Work is Bad for Us and Fixing Things Feels Good*. London: Penguin.

67. Fletcher K. 2016. *The Craft of Use: Post-Growth Fashion*. London: Routledge.

68. Fletcher K. 2017. INTERNAL REFERENCE TO HER PAPER IN THIS NUMBER OF *PHILOSOPHICAL TRANSACTIONS A*.