COMMENTARY

Building Perfectionist Ethics into Action-theoretic Accounts of Function: A Beginner's Guide

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Abstract

In her paper "Human Flourishing and Technology Affordances", Avigail Ferdman argues that our descriptions and analyses of the relationship between digital technology, and the capacities approach to human flourishing, can be enriched by building 'affordances' into those descriptions and analyses. This commentary article serves as a supplement to Ferdman's paper. Here I argue that, in building affordances into the capacities approach, Ferdman has developed the foundations of a method by which perfectionist ethics can be built into action-theoretic accounts of technical function. However, this is possible only if she is willing to expand the ambit of her theory beyond digital technologies and into technology more generally.

Keywords Perfectionism · Affordances · Function · Capacities approach · Action theory

1 Commentary

In her paper "Human Flourishing and Technology Affordances", Avigail Ferdman advocates for a 'capacities approach' to perfectionism: one "that takes the human good to be the excellent exercise of our innate human capacities" (2014, 4). This approach differs from more conventional virtue or Aristotelian approaches to perfectionism in that it concerns the cultivation and application of innate capacities (such as knowledge, friendship, creativity, and so on) rather than the cultivation of virtuous dispositions.

Working within Gwen Bradford's 'tripartite framework' (2015, 2016, 2021), Ferdman then argues that human beings flourish when we engage in activities that produce appropriate outputs. It's not simply enough to have the capacity for

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creativity, for example. Instead this capacity has to be applied—that is, it has to be put to some kind of meaningful use—in order for that capacity to contribute to human flourishing. The virtue of this account is that it possesses normative traction. Ferdman argues that not exercising capacities leads to the privation of flourishing, whether because a) a well-resourced capacity is not properly exercised, b) a capacity cannot be properly exercised, and is thus wasted, on the grounds of impoverishment, and/or c) an impoverished capacity leads to bad outcomes. These cases all contribute to the deprivation of flourishing.

Conventional approaches in this literature determine that deprivation is a matter of personal choice. However, Ferdman avers, this is not always the case. Instead, the features of a person's external circumstances also play a key role in determining whether a capacities is well-resourced or impoverished. External circumstances are thus non-neutral when it comes to the development of perfectionist capacities.

Key to this claim is Ferdman's use of 'affordances'. Ferdman argues that affordances furnish us with (or afford, if you prefer) a descriptively robust way of conceptualising the ways in which external circumstances can influence the development of perfectionist capacities. This influence can be negative— "An environment that includes constraints," Ferdman writes, "may restrict the development and exercise of capacities, thereby leading to a robustly bad privation of flourishing" (2014, 12)—or it can positive, in the case where an environment encourages, stimulates, or causes (and so on) the exercising of some capacity. Armed with affordances, Ferdman then poses an extension to Bradford's tripartite framework. An agent's ability to exercise a given capacity is not simply a matter of personal choice. Instead, capacities are the consequence of both personal choice *and* affordances working in concert.

This, moreover, is where digital technology enters the picture. Technologies, as constitutive parts of our environments, are affordance-giving: they, to quote Ferdman, "shape what we are able to do, how we are able to do it and what we see ourselves as being able to do" (2014, 12). Digital technologies, and the affordance that they furnish human users, are thus an integral part of the set of conditions that determines if a capacity can be exercised by a given agent, and thus are an integral part of the conditions that lead to privation or flourishing.

Ferdman is careful to make explicit that her analysis of how technological affordances relate to the realisation of perfectionist capacities only really refers to *digital* technology. For reasons that are not obvious to me, Ferdman's argument does not extend to non-digital technologies. It is clear that she takes there to be something special about digital technologies—perhaps due to what she describes as "the rapid development of digital technologies is transforming the world and influencing human flourishing" (2014, 1)—but what exactly grounds this specialness remains unexamined.

I think this a shame, for two reasons. First, I find the purported distinction between digital and non-digital technologies poorly motivated; I am entirely unconvinced that the affordances furnished by digital technologies differ in kind from those furnished by non-digital technologies. Second—and more importantly for this exercise—by focusing solely on digital technologies, Ferdman is blunting the analytical potential of her own framework. What is, I think, most exciting

about Ferdman's work is that it can be used to build normativity into areas of philosophy of technology where axiological questions (moral, political, or aesthetic) otherwise lie unexamined.

I will offer an example. In philosophy of design and engineering, there is a rich seam of literature that deals with the functions of technological artefacts: what function is, the grounds upon which function is designed, how function is intrinsic to our assessments of design goodness, and so on. Within this literature, among the prevailing approaches are action theoretic accounts of function. Drawing upon the work of Michael Bratman (1987), Setiya, (2014), and others, these approaches—pioneered by Pieter Vermaas and Wybo Houkes, along with a small group of collaborators—try to make sense of artefact function by embedding within the broader context of human intention and action (cf. Houkes, 2006; Houkes & Vermaas, 2004; Houkes et al., 2002; Vermaas & Houkes, 2003, 2006). These theories are premised upon the assumption that function can only be fixed by some designer or maker: some agent that is responsible for generating not only what the artefact *does*, but also how agent should use the artefact in order to achieve that outcome: what is called the 'use plan'.

One of the earliest, and certainly one of the most influential, action-theoretic accounts of function is known as 'ICE-theory'. ICE-theory can be summarised as follows:

An agent *a* ascribes the capacity to ϕ as a function to an artefact *x*, relative to a use plan *p* for *x* and relative to an account *A*, iff:

I. the agent *a* has the capacity belief that *x* has the capacity to ϕ, when manipulated in the execution of *p*, and the agent *a* has the contribution belief that if this execution of *p* leads successfully to its goals, this success is due, in part, to *x*'s capacity to ϕ;

C. the agent *a* can justify these two beliefs on the basis of *A*; and

E. the agents *d* who developed *p* have intentionally selected *x* for the capacity to ϕ and have intentionally communicated *p* to other agents *u*. (Vermaas & Houkes, 2006, 9)

Affordances are implicit in ICE-theory. When Vermaas and Houkes argue that some artefact *x* has the capacity to do and/or bring about a given state of affairs ϕ, they are arguing that x affords ϕ because of the various features of both the artefact *x* and the users *u* that make ϕ possible.

Later collaborators have since sought to make the relationship between function and affordances more explicit. Auke Pols, for example, forges a post-ICE theory of artefact function that hangs on affordances. He, following Vermaas and Houkes, identifies 'proper' use as the function ascribed by the designer. He also identifies whether a given use is 'rational': that is, whether or not the artefact can be used in accordance with the intentions of the user. Armed with this distinction, he then argues that artefact function is outcome of a virtuous relationship between proper use (the use ascribed be the designer) and rational use (how the artefact can actually be used). Pols writes: "*the function of an artifact is the purpose that may be realized with it by executing a rational and proper series of considered*

behaviors on affordances of that artifact" (Pols, 2015, 245, emphasis in the original).

I am, in general, quite partial to action-theoretic accounts of function like the two summarised here. Working with functions, intentions, and affordances, they do a good job of capturing both the contingency of human artefact use and of making sense of what we do when we make judgements about whether a given artefact has fulfilled its function. However there are limits to action-theoretic accounts as well—limits, moreover, that Ferdman's account could be used to overcome.

When we judge whether or not some technical artefact is 'good' according to action-theoretic accounts of function, what we are doing is assessing the extent to which it possesses 'attributive' goodness: the extent to which it has "the property of being a good K, for some kind K", to quote Louise Hanson (2017, 416). So, when we say something like 'that is a good coffee mug', we are saying that it is good *as* a coffee mug. What makes it good is the extent to which it fulfils the requirements of its class. However, while they are perfectly accomplished at facilitating judgments of attributive goodness, action-theoretic accounts of function are far less adept at facilitating 'predicative' judgements of goodness: that is, the kinds of judgements that we want to make when we assess whether something has the property of being good, rather than assessing whether an artefact is simply a good K for its kind K.

Action-theoretic accounts of function are adept, for instance, at outlining the conditions under which we can say something like "The Tomahawk cruise missile is a good bomb" (cf. Hanson, 2017, 415). That is, the Tomahawk cruise missile fulfils its function, and is thus a good bomb, when it can be used properly (in accordance with the intentions of its designer) and rationally (it furnishes the appropriate affordances). However, action-theoretic accounts of function are ill-equipped to assess whether or not the Tomahawk cruise missile is *actually* good. The Tomahawk cruise missile being a good bomb tells us nothing about whether or not it is morally good to use in that functional capacity.

This is where Ferdman's account comes in. Assuming we buy into her claim that we can and should think about human flourishing in terms of technology affordances, I think that Ferdman's analysis offers us a way to build judgements of *predicative* goodness into action-theoretic accounts of function. When we assess an artefact in terms of its function and the affordances that it furnishes, we need not only examine the extent to which it does the job for which it was designed. Instead, we can also assess the extent to which that function and those affordances contribute to the cultivation and application of the various innate capacities that we take to be morally valuable. In short, Ferdman has, in my view, developed the foundations of a method by which perfectionist ethics can be built into action-theoretic accounts of technical function. Unfortunately, however, I think the analytical potential of this approach is stymied by Ferdman's emphasis upon digital technologies rather than technology more generally.

In any event, I am very bullish about the work that Ferdman has started here. I also think Ferdman's work here affords a number of interesting opportunities—not only for philosophers and design researchers, but also practicing engineers and designers interesting in design ethics and related domains.

Declarations

Ethics Approval and Consent to Participate N/A

Consent for Publication N/A.

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