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Moral and Intellectual Virtues in Practices Through the Eyes of Scientists and Musicians

Timothy Reilly · Darcia Narvaez ·
Mark Graves · Keke Kaikhosrovili ·
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Virtue in Practice: Toward a Richer Account

Abstract In this chapter, we consider the relationship between virtues and practices. We emphasize the distinction between intellectual and moral virtue. A few central claims and relevant approaches to virtue in contemporary scholarship are considered. Following this, we present our novel 4 Es approach to virtue: (1) Ends, (2) Ethic, (3) Emergence, and (4) Excellence, drawing on examples from science and music. We discuss each of these facets of virtue individually and also discuss their integration in practices.

Keywords Virtue · Intellectual virtue · Moral virtue · Practice · Values · Expertise · Ends

In recent decades, there has been intensive effort to better understand virtue and its relation to practices. Virtues refer to those qualities which allow someone to engage in the relevant activities well. Thus in different times, places, and situations, different expressions of qualities are needed if an individual is to be virtuous. Practices change too. For example, being a good physicist manifested differently for Albert Einstein, prior

This chapter was authored by Timothy Reilly and Darcia Narvaez.

to the existence of instruments like the Large Hadron Collider and ideas like superstring theory, than it does for a contemporary physicist. Practices typically involve multiple individuals collaborating in pursuit of a particular value and/or goal. Practices are shared collections of activities that are directed toward realizing a value or accomplishing a goal and sometimes those goals change.

Philosophers have prominently claimed that practices themselves are schools of virtue (MacIntyre, 1981). That is to say that through particular practices, individuals come to understand how to act well, and eventually, through engaging in a variety of practices virtuously, individuals become capable of living good lives beyond the practice. Thus, for MacIntyre, being a good musician may be an expression of a good human being, though not necessarily. Being a good human being may require being good at some practice(s), however, if one understands virtue to be rooted in practice.

Virtue ethics are philosophical accounts of the role of virtue in living a good life (e.g., Hibbs, 2001). Much has been written on the good life, how it is lived, what it is made up of, and how to live it. The good life, as we understand it, is a life of flourishing, in which an individual lives to the height of their potential and, in doing so, contributes to their community and the world (Narvaez, 2015). However, this general view of flourishing requires specification in the life of an individual. One avenue toward understanding particularities of flourishing is to examine those who engage well in practices.

Instead of focusing on practices per se, social scientists focus on individuals and activities, typically developing accounts of the relationship between practices and individual behavior or capacities (e.g., Bourdieu, 1990; Lave & Wenger, 1991). The Virtues in Practices Project emerges from an intensive multidisciplinary effort to examine the relation of virtues and practices from practitioner perspectives, specifically in the context of science and music. We emphasize the potential contributions of psychology to these discussions, highlighting central philosophical claims and complementing them with psychological scholarship.

What does it mean to be a good scientist or a good musician? There are at least two common, overlapping understandings of goodness in both domains. First, goodness can be understood as a kind of technical proficiency expressing one's skills and abilities. Thus, the good scientist is the scientist who is 'good' at doing scientific tasks, such as reasoning, conducting experiments, and other activities. Likewise, a good musician is

good at musicianship, expressing the music well via instrument or vocalization. In both cases, they may not only uphold current standards in their field but even advance the field of science or innovate within the field of music. The second kind of goodness can be thought of more broadly as being a good human being, whereby one contributes to the world or community through one's involvement in the profession. A good scientist or musician, in this sense, helps to improve the community as a whole through their work, perhaps helping a community celebrate with a musical performance or developing a hybrid plant that replenishes the soil. This second kind of goodness is more than technical competence and can be thought of as setting the stage for a good life generally.

We can identify two types of virtue, intellectual and moral, and describe intellectual virtue first. The first type of goodness as a scientist or musician is expressive of practical *intellectual* goods, and so relies on *intellectual* virtue. Intellectual virtue can be further considered as having two primary facets, (1) practical, relating to the realization of values in concrete situations and toward specific goals, such as appropriate and beautiful musical expression. Intellectual virtue is also manifest in (2) speculative ways, considering abstractions, possibilities, and ideas generally rather than in specific concrete instances (Hibbs, 2001). For instance, speculative intellect could be manifest in thinking about the underlying nature of hydrogen and oxygen, while using ice to cool oneself would manifest practical intellect (see Chapter 4 for more on intellectual virtue).

The second kind type of goodness, contributing to one's world or community as part of living a good life, is expressive of *moral* goods, and so relies especially on *moral* virtue. Moral virtue refers to those virtues which lead individuals to have a goodwill, desiring and seeking the good reliably (Dumler-Winkler, 2018). Both kinds of virtue, intellectual and moral however, have some of the same general qualities, which we shall call the 4 Es: *ends*, *emergence*, *ethic*, and *excellence*.¹

First, intellectual and moral virtue are directed toward different *ends* or values. This includes general values of intellectual and moral virtue, respectively, and specific values related to individual virtues. Indeed, it is just the primary ends of virtues that distinguishes them as either intellectual or moral virtues. Virtue manifests in the *ethical* aspect as a consistent way of being, amidst the various values, goals, and identities one develops.

¹ Our 4E approach to virtue is independent of what is sometimes called the 4E approach to cognition: embodied, embedded, enactive, and extended; see Narvaez et al. (2022).

Virtue *emerges* dynamically from robustness and flexibility in the coordination and development of the attunement of the individual to the demands and constraints of the contexts they experience. Finally, virtues are *excellences*, qualities supporting an individual to realize relevant values efficaciously and in a flexible way, and in a way that is, at the heights of virtue, adaptively consistent across situations. All of these aspects of virtue must be considered in concert, rather than as independent.

What do intellectual and moral virtues look like in each field, science and music? We begin with an overview of various theories and conceptions of virtue and flourishing. We then expand upon the 4 Es perspective, drawing from a MacIntyrean (1981) form of Neo-Thomism (Aquinas, 1991). Further, we seek to supplement this with psychological theory and research. We also emphasize the relationship among the 4 Es, which we think of not as isolated facets but integrated in practice.

CONTEMPORARY VIRTUE SCHOLARSHIP

Even among philosophers who acknowledge something like the 4 Es and make distinctions between intellectual and moral virtue, numerous perspectives exist. While we cannot engage comprehensively with these perspectives, we will provide an overview of what we find most relevant to the present work. We then consider social science scholarship that informs the philosophy before stating our own perspective in undertaking this work, relating it to the array of philosophical perspectives and to social scientific accounts. Our goal is to use an integrative perspective as a theoretical foundation for thinking about virtue, especially virtue in practices like science and music, with the hope of bridging a too common divide between empirical science and philosophy.

A variety of philosophical perspectives on virtue, intellectual and moral, exist, with varying claims and orientations. Virtue ethics is generally holistic, considering life as a whole and so seeking to integrate intellectual and moral virtue (e.g., Vogler, 2018). For instance, there are Eastern virtue ethics (e.g., Buddhist virtue ethics; Flanagan, 2018), in addition classical Western virtue ethics and its extensions (e.g., Aristotle, 2002; Aquinas, 1991; MacIntyre, 1981). Further some recent accounts integrate these theories with empirically informed observation, seeking to understand whether or not individuals actually live up to these standards of virtue (e.g., Mixed Trait Theory, Miller, 2013).

Intellectual virtue needs, in virtue ethical accounts, to be supplemented by moral virtue if an individual is to live a good life. Virtue epistemology (Baehr, 2011) and intellectual virtue (Roberts & Wood, 2007) emphasize excellence primarily in knowing, acting, reasoning, and understanding. Aristotle (2002) and Aquinas (1991), along with contemporary writers (e.g., Hibbs, 2001), maintain in virtue ethics the distinction between moral virtue and intellectual virtue that we presented earlier in this chapter. Intellectual virtue is understood by these thinkers (e.g., Hibbs, 2001) as an important component, necessary but not sufficient, for the good life conceived of by virtue ethics.

Alongside these largely philosophical accounts (which often exist in dialogue with theological accounts), social scientists, especially psychologists, have engaged in heightened inquiry at the intersection of social science and virtue, trying to understand and elucidate the qualities of virtuous individuals. Much of the social science work draws on exemplar studies, examining the personalities and attitudes of highly moral or creative individuals (e.g., Csikszentmihalyi, 1996; Damon & Colby, 2015; Walker & Frimer, 2007). A breadth of approaches to virtuous personalities has been developed: trait-based (e.g., Fleenon et al., 2015), narrative and adaptation-focused (McAdams, 2015; Schnitker et al., 2019), and project based (Bedford-Peterson et al., 2019). Educational and developmental approaches considering the cultivation of virtue or virtue-like qualities are also worthy of attention (e.g., Annas et al., 2016; Chinn et al., 2014; Narvaez, 2014), examining not just what a virtuous personality looks like, but how one becomes virtuous.

TOWARD A SOCIAL-SCIENCE-INFORMED MACINTYREAN NEO-THOMISTIC VIRTUE ETHICS

Throughout this book, we intentionally engage with a normative perspective on virtue ethics in practices, while also highlighting relevant perspectives from social science. Our normative perspective emerges centrally from philosopher Alasdair MacIntyre's (1981) contention that practices, embedded within traditions, organize the development and expression of virtue. Traditions, for MacIntyre (1981), are understood as contextualized ways of living and conceptions of the good life, considered as existing across individuals, communities, and time. For example, national or regional cultures and most religions can be understood to be traditions on this view, provided they provide central organizing social systems

for individuals' lives. Practices, within traditions, are particular activities directed toward specific goals and needs of members of a tradition, including varied health, intellectual and civic functions (i.e., medicine, science, or politics), common activities (e.g., farming, arts, or sport), and other facets of the tradition which are not universally practiced.

Alongside this, we recognize the importance of social scientific insights into human flourishing and the good life and their opposites (e.g., Narvaez et al., 2021). Not all practices promote flourishing in their members (e.g., slavery, coal mining). Not all traditions facilitate flourishing equally (e.g., economic inequality fosters the exploitation of the underprivileged and promotes inequality that undermines well-being; Wilkinson & Pickett, 2011). Thus, a social science lens involves specific measurements of flourishing that may contradict the general assumptions of philosophical theory. We value philosophical and social science approaches as dialogue partners.

MacIntyre (1981) explicitly calls upon the writings of Thomas Aquinas as a grounding for his ethical perspective, and so we adopted this as the starting point for our inquiry, and like MacIntyre, acknowledge Aquinas' (1991) reliance on assorted theological and philosophical sources from across the scholarly world. We also recognize, however, the enactive and changing nature of practices (Lave & Wenger, 1991). Maintaining Aquinas' (1991) eclectic approach, we also consider more recent perspectives on virtue (e.g., Audi, 2018; Hibbs, 2001; Miller & West, 2020), while maintaining the centrality of Neo-Thomism, the philosophical tradition of Aquinas (1991) and MacIntyre (1981). This allows us to draw on modern theoretical and empirical insights while continuing to work within an existing tradition, in a manner consistent with MacIntyre's (1981) account. This also provides a grounding scope for the work, avoiding the risks of too broad a perspective. At the same time, this scope means that we engage little with diverse manifestations of virtue in other traditions and practices, like jazz music and indigenous science (e.g., Medin & Bang, 2014).

Ends

Central to virtue classically (e.g., Plato) is a consideration of the most important values, which are also called the highest *ends*. Classically, there are three ultimate values or highest ends: truth, goodness, and beauty (e.g., Hibbs, 2001). To live in a way that strives for the ultimate

values is to live an excellent life, one that fosters flourishing. Those who are virtuous are able to live in this manner, fulfilling their potential as human beings, both individually and as members of their communities. While each virtue relates to particular values (*specific ends*), all the virtues coordinate in supporting the pursuit of the three highest ends.

Many actionable qualities need to be cultivated and developed in order to approach the full realization of the three highest ends, qualities that comprise virtues. Distinctions between intellectual and moral virtue emphasize the particular kinds of ultimate values that virtues are primarily oriented toward, with intellectual virtues aiming for truth, action, and understanding, whereas moral virtues aim more directly for goodness (Dumler-Winckler, 2018) and social cooperation (Narvaez, 2016). Traditionally, less attention has been given to specific qualities directly supporting the pursuit of beauty, as beauty has been assumed to arise through moral and intellectual virtue together (Hibbs, 2001). Recently, virtue aesthetics has been proposed as a field of inquiry, however, to examine specific qualities relating to beauty, without necessary reference to moral and intellectual virtues (Roberts, 2018).

Specific virtuous qualities, moral, intellectual, or aesthetic, are often thought to be structured hierarchically, with virtues like prudence, temperance, fortitude, and justice near the top of the hierarchy, and various qualities that support these broader virtues below them (e.g., Vogler, 2018). Practically, this means that prudence, temperance, fortitude, and justice are understood as supported by the coordination of other virtuous qualities and their associated behaviors, creating an access point for psychological inquiry and theory, which can help to delineate the relationships between values and behavior. Psychologists have studied values extensively, including universal approaches to human values (e.g., Schwartz, 1997), values in practices (e.g., Christen, 2018), the development of values (e.g., Narvaez, 2019; Narvaez et al., 2021), and living in accord with one's values (e.g., Sheldon & Elliott, 1999).

Acknowledging this, we also recognize that the structure and the ordering of values may differ in science and music, as practices that are parts of broader lives. This requires our research to be open to different manifestations of virtue and structures of relationships between virtues in each practice. Being an excellent scientist certainly requires different skills than being an excellent musician, in terms of knowledge of physical principles and application of research methods, as opposed to knowledge of music theory and instrumental performance skills. However, it is not clear

whether this necessitates different structures of values and thus virtues in these practices, which our project examines.

Ethic

It is important to distinguish at the outset the difference between virtue ethics, personal ethics, and ethics of practice. Virtue ethics is about living a good life. By personal ethics, we mean the personal standards and consistencies by which an individual lives their life. Ethics of practice refers to the domain standards that organize practitioners' behavior with regard to their practice. We find *ethic* preferable to the related term *habit*, given problematic associations with habits and behaviorism in psychology (see Reilly & Narvaez, 2018). An ethic, then, captures an ideal embodiment of a way of being, considered across time. A virtuous ethic is one directed toward and realizing ultimate values or the highest ends, as discussed above. Personality science seeks to engage with how humans actually live. While this has often emphasized differences between individuals and groups, especially in the last few decades, we choose to emphasize research focusing on individuals' psychology, drawing on process and structure focused approaches to personality (e.g., Cervone & Little, 2019). Process and structure here emphasize the underlying psychological phenomena occurring at the individual level, organizing and shaping how individuals experience and engage with the world. To this end, we emphasize personality research that examines individual differences more intently than research that is primarily making comparisons across individuals.

A number of approaches to personality science have been considered in relation to virtue and living a good life. These include accounts from whole trait theory (Fleeson & Jayawickreme, 2015), narrative (Bauer & DesAutels, 2019), social cognition (Cloutier & Ahrens, 2020), and multi-level accounts (e.g., Reilly & Narvaez, 2018; Schnitker, et al., 2019). We prefer multilevel accounts as they serve to integrate the insights of various theories. As such, they better approximate the idea of an ethic as a whole way of being.

Multilevel accounts of personality, arising especially from the theory of McAdams (1996), suggest that personality functions at the levels of (1) general personality traits like extroversion and conscientiousness (which allow comparative acontextual description across individuals), (2)