Promoting Practical Wisdom in Young Adulthood: Integrating Insights from Developmental Psychology, Neuroscience, and Engaged Learning

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Abstract

Practical wisdom (phronesis) is a complex aspirational virtue that has the power to unify many aspects of the moral life. Yet little is known about how young adults develop the capacities for such applied wisdom. What prompts maturity in moral reasoning, empathy, identity and related components? What might we learn from neuroscience? How can we frame learning experiences that engage young adults toward the goal of practical wisdom? And, to examine progress, how can we operationalize the concept of practical wisdom developmentally to enhance research in this area? This paper will address such questions and explore implications for higher education, with a particular focus on socially engaged forms of learning.

The development of practical wisdom presents no small challenge in the life of an individual or community. Policy makers, educators, and parents seek to foster virtue and character development through means that may be built on unexamined paradigms of learning and development. We need multidisciplinary models of moral learning and social responsibility that can account for the complexity of the developing individual and changing social contexts. Toward this end, the author draws upon various research traditions and incorporates data from a recent study of over 700 young adults.

Introduction

Practical wisdom, known as phronesis in classical philosophy, is a welcomed trait (who could be against it?, we may ask). Yet wisdom is also difficult to define and study: we know it when we see it, perhaps. We expect wisdom, especially practical wisdom, from our leaders, and we may hope that educational systems foster wisdom, though seldom are learning goals or outcomes so framed. Higher education has evolved to a focus on content knowledge and the technical, giving limited attention to the moral and character elements that may comprise wisdom. Yet new forms of learning in the academy, including experiential pedagogies, and recent understandings of human development from neuroscience provide contexts for new thinking and integrative practice. This paper addresses the challenge of avoiding both "reason without practice" and "practice without reason" (Whitmore, 2001), drawing from research on moral reasoning, identity, purpose and related elements of wisdom. Such will provide grounding for the creation of learning experiences in higher education that engage young adults toward the goal of

practical wisdom. Consistent with the focus of phronesis[1] (i.e., on action/application), this paper examines how practical wisdom may be understood by educators, and activated or enhanced via engaged forms of learning—specifically service learning and community-based learning.[2] A brief historical review will provide context.[3]

Wisdom: Definitions and Overview

For wisdom is better than jewels, and all that you may desire cannot compare with her.
<div align="right">— Proverbs 8</div>

Interest in wisdom dates back at least to Confucius (see Curnow, 2015, for a detailed history). Karelitz, Jarvin, and Sternberg (2010) provide an accessible outline of wisdom in eastern, philosophical and religious traditions as a framework for developmental and scientific exploration. In Confucianism and Buddhism, they note, wisdom "is associated with a way of life" directed toward "compassion … and a genuine desire to improve oneself and one's surroundings" (p. 841). In early Christian thought, wisdom was assumed to be from God through faith, though some, like Aquinas, allowed that human reason could play a salient role (p. 844).

The early Greek philosophers provided grounding for a nuanced study of wisdom that remains salient. Aristotle (2012) in particular highlighted practical wisdom in his *Nicomachean Ethics*. He distinguished (in Book VI) phronesis from more theoretical (*episteme*) and technical (*techne)* forms of knowing. Practical wisdom is a virtue based in rationality and directed toward living well: "the quality of mind concerned with things just and noble and good for man". While discernment of the good (or moral truth) is key to all virtues, practical wisdom does not allow understanding to lay fallow but "take the right means" toward the "right mark". Practical wisdom revolves around right action for the good: one "has practical wisdom not by knowing only but by being able to act".[4]

The study of wisdom waned during the Middle Ages, with some revival during the Renaissance and the Enlightenment, as wisdom came to be understood increasingly, though not exclusively, in human terms (Karelitz et al., 2010). The definition of wisdom evolved into the modern area to include concepts of moral reasoning and the civic good that could be informed "through contemplation, observation and scientific inquiry" (Karelitz et al., p. 845). In the academy, attention to wisdom has broadened beyond its original grounding in philosophy and religious studies (Baltes & Staudinger, 2000).

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[1] The more general Greek term for wisdom, *sophia*, refers to the exploration of first principles of knowledge which are of primary concern to philosophers (Osbeck & Robinson, 2005)

[2] I use the term *engaged learning* in this paper inclusively to include service-learning, community-based learning, and other forms of experiential learning, many of which have been identified as high-impact practices in higher education (Kuh, 2008).

[3] Note: This paper is directed toward educators as an argument that engaged learning and the development of wisdom coalesce. It paints with rather large brush strokes to prompt further interest and examination.

[4] Quotations in this chapter are from the Acheron Press 2012 translation of *Nichomachean Ethics* (Kindle locations 78 to 92)

While attention to wisdom within the social sciences was slow to develop compared to other constructs, ground was paved by Erikson, Maslow, Kohlberg and related thinkers (Karelitz et al., 2010). The work of Paul Baltes and colleagues (Baltes & Smith, 1990, 2008; Baltes & Staudinger, 1993) served to animate the study of wisdom within psychology and human development, as have efforts by Robert Sternberg (1990, 1998). Currently, insights from neuroscience inform both developmental understanding of wisdom and pedagogy in higher education (Hall, 2010; Zull, 2011; Ludvik, 2016).

Table 1 presents a sample of wisdom definitions over time. In a recent comprehensive review by Bangen, Meeks, and Jeste (2013) nine components of wisdom emerged (listed in order of frequency of mention in the scientific literature): 1) social decision-making/knowledge, 2) prosocial attitudes and behaviors, 3) self-reflection, 4) acknowledgement of uncertainty, 5) emotional homeostasis, 6) value relativism/tolerance, 7) openness, 8) spirituality, and 9) sense of humor. How such elements of wisdom develop and cohere presents challenges and opportunities for research.

How Wisdom Develops Over the Lifespan

A few key questions frame research on practical wisdom from a developmental lens. First, is wisdom a stable character trait (as early virtue ethicists seemed to posit), perhaps inhering in human nature, or more contextually dependent, given social psychological evidence for the impact of cultural influences on both what we consider wise and how we act (Prinz, 2009)? A second question, related to the first, concerns the relationship between virtue and practical wisdom, and which may develop first. Narvaez, Gleason, and Mitchell (2010) outline three views: 1) that, consistent with Plato and Aristotle, practical wisdom is integrated with and facilitates other moral virtues; 2) that, consistent with Kant, practical wisdom is distinct from and precedes moral virtue(s) in development (one needs to learn to control the self before one can choose rationally

Table 1 Definitions of Wisdom/Phronesis	Author/Source
Wisdom is a learned and highly refined state of mind or character.	Confucius, 551-479 BC (described in Karelitz et al., 2010)
A true and reasoned state of capacity to act with regard to the things that are good or bad for man. Practical wisdom is a virtue and not an art. Practical wisdom is concerned with action…since its end is what ought to be done and not to be done.	Aristotle, 384-322 BC *in Nicomachean Ethics*
In the Periclean formulation, wisdom was deliberative, judgmental, collective, reflective, and deeply social, rooted in conversation and disputation, steered by critical thinking.	Hall, Stephen (2010, p. 28)
A wise man uses strict inductive reasoning along with systematic scientific inquiry to discover even the "underlying" forms or processes for all observed phenomena.	Francis Bacon (as summarized by Birren et al., 2005, p. 10)

[Wisdom is] a metaheuristic to orchestrate mind and virtue toward excellence. Expertise on the conduct and meaning of life.	Baltes & Staudinger, (2000, pp. 122-124))
We regard wisdom as expert knowledge and judgement about difficult and uncertain matters of life, employed for the good of self and others	Pasupathi & Staudinger, (2001, p. 402)
The core of wisdom is both knowing and doubting and the balance between the two … the belief that one can see all that can be seen and know all that can be known is evidence of the *lack* of wisdom.	Birren & Svensson in Sternberg & Jordan (2005)
Wisdom is the master virtue essential to solving problems of specificity, relevance, and conflict that inevitably arise whenever character strengths must be translated into action in concrete situations.	Schwartz & Shape, (2006)
Wisdom encompasses the understanding that truth is not always absolute, but rather it evolves in a historical context of theses, antitheses, and syntheses.	Karelitz, Jarvin, and Sternberg (2010)
Wisdom is a rare and unique human ability associated with positive aspects of one's life and development which integrates advanced cognitive, mental and emotional qualities, human relations and interests, types of knowledge and time frames. Wisdom develops throughout life, and is represented by the effective application of skills and knowledge towards a common good.	Karelitz, Jarvin & Sternberg (2010)
In the end, wisdom is the use of intelligence, creativity, and knowledge in a positively ethical way that is directed toward the common good.	Sternberg (2013, p. 71)
Wisdom involves "intellectual humility, self-transcendent viewpoint, and recognition of the bigger issue at hand", and is dynamic vs. stable	Grossman, Gerlach & Dennisen (2016, p. 619)
An understanding of people, objects, events, situations, and the willingness as well as the ability to apply perception, judgment, and action in keeping with the understanding of what is the optimal course of action.	Wikipedia https://en.wikipedia.org/wiki/Wisdom
To understand wisdom fully and correctly probably requires more wisdom than any of us have.	Robert Sternberg (1990)

determined moral acts); and 3) a more contemporary and developmental understanding, that moral virtue develops contextually and iteratively through experience. With respect to the third framework, the authors suggest that "although moral virtue develops earlier than practical wisdom, the skilled adult knows what ends are good (as a result of moral expertise) and how to reach them (through practical, general knowledge), an understanding developed via extensive moral and practical experience" (p. 3).

Narvaez et al. (2010) designed cross-sectional research integrating moral theme analyses to examine these models of virtue/wisdom development across a wide range of age groups (third and fifth graders, colleges students, middle-aged and older adults). They found evidence, consistent with the third model, that moral cognition (knowledge of the good, of virtue) develops before prudential judgements (practical wisdom). Their results, however, paint a complex picture, suggesting that the interplay of social interactions, central to human life, and brain maturation is key to understanding the relation between virtue and wisdom.

Similarly, fluid, dynamic nature of wisdom (see Grossman et al., 2016) presents ongoing developmental

and research challenges. While we may conceive particular moral truths to be stable (or to be principles), wisdom by its nature is fluid (Hall, 2010) as we seek to apply insight in emergent contexts (which principles should I engage here, and in what priority?).

Although a mapping of the developmental trajectory of wisdom presents challenges, both theory and research suggest adolescence may be a particularly ripe time for the wisdom to sprout (Pasupathi, Staudinger, & Baltes, 2001). Advances in reasoning and related capacities among adolescents and youth may set the stage for later growth in wisdom. While many assume that wisdom represents the accumulation of wisdom, the relationship between age and wisdom is not linear (Baltes & Staudinger, 2000; Ardelt, 2010; Gluck et al., 2011). Pasupathi et al. (2001) present findings suggesting that age-related growth in wisdom-related constructs are most tied to chronological age during adolescence and early adulthood, the period overlapping the traditional age for college attendance. They point out that the period between childhood and adulthood presents rich contextual opportunities (for both development and constraint): "It is possible that knowledge about the contents, scope, and variation of lives is one of the first bodies of knowledge that adolescents develop as they progress toward the kind of general meta-understanding of the human condition that wisdom implies" (p. 359). They conclude that "If the seeds of wisdom lie in adolescence, as our data suggest, this is a period of life with which wisdom researchers need to be concerned" (p. 360). Further, given the maturing capacities of students and the rich environment for exploration, the college experience represents a prime opportunity for ethical development, a "moral crossroads" for student exploration of moral and civic concerns (Brandenberger, 2005; Brandenberger and Bowman, 2015).

College, Engaged Learning, and Research on Elements of Practical Wisdom

While research on wisdom specifically is limited, especially among college students, many constructs that may be considered components of wisdom have been examined developmentally, and with respect to student outcomes. Here I address research on moral reasoning, moral identity, purpose, and related constructs.

Moral Reasoning — Most agree that wisdom incorporates (or points to) the moral or what is good. Pasupathi & Staudinger (2001) examined the particular role moral *reasoning* may play with respect to wisdom, examining a sample of 220 adults ranging in age from 20 to 87. They found that level of moral reasoning (as measured by the Moral Judgement Test) correlated positively with measures of wisdom (assessed using the Berlin Wisdom Paradigm), though other factors (e.g., personality variables) were also salient.[5] They argue that moral reasoning is more limited in scope, and that wisdom is context dependent. Higher scores on measures of moral reasoning are associated with moving beyond social conventions, while a wise person may act in a manner less tied to abstract thinking about fairness or justice. The study also found evidence for a threshold effect: those with very low moral reasoning scores

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[5] Stephen Kosslyn describes the role of emotional regulation in relation to reasoning and wisdom "In reasoning, we now know that emotion plays a major role …, and wisdom may have a lot to do with knowing when emotion is helpful and when it is not." (in Hall, 2010, p. 17)

were quite underrepresented among peak wisdom performers. With respect to the role of maturation, the authors found "that higher age was associated with higher levels of wisdom-related knowledge and judgment only for those with high levels of moral reasoning" (p. 401). They discuss their overall findings in light of neo-Piagetian frameworks, noting that while moral reasoning and wisdom are distinct, a preference for using abstract moral principles may facilitate complex functioning that broadens perspective taking and enhances wisdom. Such developmental intersections remain ripe for further research.

Research on moral reasoning among colleges students is well developed, suggesting that the college experience overall (not simply maturation) is a consistent predictor of higher levels of moral reasoning (King and Mayhew, 2004). There is also significant evidence (Boss, 2004; Lies et al., 2012) that service learning enhances moral reasoning.

Moral Identity — After decades of focus on moral reasoning reflecting a Kantian frame, the scope of research broadened to include other components of moral functioning, including moral identity (Aquino & Reed, 2002). Moral identity integrates a sense of self as a moral person with motivation to act morally, and thus is conceptually aligned with wisdom. Again, the college years can be a ripe period for such development, and engaged forms of learning helpful (Brandenberger, 2005). Blasi (1993) notes that we come to appropriate a sense of the self as a responsible person through experience, through seeing ourselves respond in social or moral contexts and engaging the consequences. Similarly, Hardy and Carlo (2005) point out that, "… when morality is important and central to one's sense of self and identity, it heightens one's sense of obligation and responsibility to live consistent with one's moral concerns" (p. 234). Beliefs about personal agency, including self-efficacy, are also an important component of identity, and may be impacted by service or engaged forms of learning (Yates & Youniss, 1997; Reeb et al., 2010).

Purpose — Like wisdom, purpose in life—having a sense of direction and a goal orientation—is an integrative, higher-order construct that has the power to animate other elements of the self (Bronk et al, 2009; Damon, 2009). The college years have been identified as salient for purpose development (Hill, Burrow, Brandenberger, Lapsley, and Quaranto, 2010; Hill, Jackson, et al. 2011). In particular, having a sense of prosocial purpose upon graduation from college—which correlates with service learning during college—has been shown to be a salient predictor of well-being and flourishing later in life (Bowman, Brandenberger, Lapsley, Hill and Quaranto, 2010).

Phronesis, Neuroscience, and Pedagogy

Let us turn to what may be learned about the development of practical wisdom—and pedagogies that may promote it—from findings in neuroscience. New discoveries in how we regulate emotion, make meaning, and develop judgments provide important indicators. Meeks and Jeste (2009) suggest that wisdom may represent an integration of more primitive brain elements with recently developed functions (the prefrontal cortex). In a thoughtful overview, Hall (2010) notes the importance of "knowing what is important" and outlines how the brain, in rapid manner, assigns value to opposing options presented in the environment, makes predictions, then chooses courses of action, often in a

manner idiosyncratic to the individual. Research suggests that "most of the action in terms of wisdom and judgment probably happens upstream of the decision … in the neural spigots that feed information and data into valuation" (Hall, 2010, p. 89). For wisdom's sake, we need to learn (both as individuals and as researchers), how such processes can be enhanced, especially in the area of valuation (central to wisdom). Do we need to slow down in the assigning of value, or build habit that preserves previously determined judgments of right action? Such questions, with implications for education, are made more complex by the entanglement of moral emotion and judgment, which neuroscience suggests are not as distinct as typically portrayed in historical conceptual/philosophical arguments (Hall, 2010). While philosophers may be less inclined to engage neuroscience given their primary focus on the "ought" in ethics (hoping to avoid concluding an "ought" from the descriptive "is"), Green (2003) points out that neuroscience has the potential to discern the complex roles of instinct, perception, and belief in discerning moral truth.

In a comprehensive work, psychologist Darcia Narvaez (2014) draws from neurobiology, cultural anthropology and lifespan theory to examine the development of morality and wisdom. She notes that current cultural shifts (e.g., in childrearing practices, in social organization) are rewiring how we develop morally: "Morality is influenced by all sorts of physiological systems, most of the time without our awareness. Their misdevelopment influences moral conceptions and the types of societies we adults create." (p. 5). In this and a subsequent work (2016) she develops a theory of *triune ethics*, built on evidence that individuals exhibit three types of ethics: 1) an ethic of security or protectionism, 2) and ethic of engagement, and 3) and ethic of imagination. Each ethic "represents a different global brain state that includes or excludes certain others." (2014, p. 211).

Narvaez frames the ethics of engagement and imagination as salient moral *heritages* upon which development is built. The engagement ethic evolves from experience (consistent with Piagetian frameworks) with caregivers, peers, and others and is reflected in concepts such as attachment and empathy. The ethic of imagination, or communal imagination, represents a higher-level capacity, and builds on the ethic of engagement: "Engagement is the foundation for social relations, but imagination provides the fodder of possibility" (2014, p. 118). She notes that "frontal lobe structures give humans capacities for the reflective moral life, including logical and imaginative moral problem-solving, foresight, planning, learning, and awareness of the self-in-past and the self-in-future." (p. 111). Such moral qualities can be fostered/enhanced if we structure our social systems accordingly. Narvaez argues that we need to collectively build the habits of sympathy, compassion, and perspective taking among youth through engagement. Her work is a strong argument for the importance of practical wisdom and provides insight into how it may be enhanced. She argues that "common-sense wisdom" is the salient cardinal virtue (even more important that justice) for it integrates the other virtues. She calls for efforts to foster self-authorship (see Baxter Magolda, 2004): "Sustainable change requires self-authorship capacities. Self-authorship involves the use and development of phronesis, or practical wisdom. This is the capacity to observe and guide one's experiences. These metacognitive skills help one steer away from temptations and toward environments that promote self-healing." (2014, p. 263).

Ludvik (2016) and colleagues examine the implications of neuroscience specifically for higher education,

with special attention to compassion, critical thinking, and peace. Ludvik cites evidence that what we attend to "literally changes the structure and function of certain portions of our brain" (p. 10). Because brain function is built on connection and enhanced holistically, the traditional design of college curriculum (stemming from historically disparate disciplines) runs counter to optimal learning. Instead of linear learning via separated course units, she calls for a focus on development, integration, and process vs. content. Similarly, Marx and Gates (2010) argue that "developing a broader understanding of self requires having opportunities to identify one's voice, wrestle with perspectives, and critically engage with one's own lived experiences. It begins by awakening to the personal authority necessary to make decisions for oneself." (p. 100).

Toward such ends, McGill (2016) builds a case for experiential learning on insights from neuroscience integrated with learning theory. She notes, drawing on the work of Zull (2011), that transformational learning must integrate the emotional brain with systems of reasoning and problem solving. If learning is structured passively, with memorization vs. ownership or engagement, connections wane and deep learning does not occur. Zull (2011), a biochemist, provides a comprehensive analysis of how the brain transforms perception into action and integrates experiences, as brain becomes mind.

The literature of engaged learning (see Brandenberger, 2012, for a review of developmental outcomes associated with service-learning) often describes and supports the development of phronesis without explicitly mentioning it: "As individuals move through the successive stages, their moral judgment moves from simple conceptions of morality grounded in unilateral authority and individual reciprocity to judgments grounded in shared social norms to an appreciation of a more complex social system to a perspective that is capable of evaluating the existing social system in relation to more fundamental principles of justice" (Colby, Ehrlich, Beaumont, and Stephens, 2003, pp. 103–104). Reciprocally, wisdom researchers often suggest processes that could be used in a text justifying engaged learning: "Truth, the concept sought by wisdom, lies in the transition from what we think we know to be true at this point in time, which is then challenged by new and conflicting information, understandings, or circumstance, to finally culminating in an integration of perspectives." (Karelitz et al., 2010, p. 851).

Faculty often choose engaged forms of learning with moral goals in mind (though sometimes these are implicit vs. explicit). One educator describes the inherent processes involved: "In the service-learning courses that I teach I, too, am concerned that students think systemically about the causes of injustice and that they frame their moral judgments based on such an analysis. Yet my students tell me repeatedly that it is the relationships that they enter into with inspiring community leaders, with immigrants struggling to learn English, with inner-city kids in after-school programs, and even long-distance relationships with embattled human rights workers in Latin America that are morally transformative. (Strain, 2005, p. 63). Such an integration of conceptions of morality and justice combined with insight developed from human relationships represents precisely the stuff of practical wisdom, and suggests an important role for engaged forms of learning.

Amrosi-Randic and Plavisic point out that it "is not any kind of experience in itself that leads to wisdom, but rather the decision to use that experience in a reflective, action oriented way that leads to a common good" (2015, p. 12). Engaged learning can foster among students the desire to learn from experience and

build wisdom, especially if educators make such link explicit. As Karelitz et al. note, "People must want to acquire and maintain wisdom-related knowledge and skills, and then must adopt the attitudes toward life—reciprocity, openness to experience, reflectivity on experience, and willingness to profit from experience—that will enable wisdom to develop." (2010, p. 875).

Current Research: The Development of Ethics, Moral Identity, and Purpose among College Students

Recent research by the author and colleagues at the University of Notre Dame sheds light on the wisdom-related constructs outlined above (moral reasoning, identity, and prosocial purpose). In longitudinal designs, we have found, for example, that college experiences are more powerful than levels of religiosity or spirituality (at college entry) in predicting prosocial behavior (Brandenberger & Bowman, 2015)), and that the development of prosocial purpose during college can have salient effects on measures of generativity, integrity, and well-being years later (Bowman et al., 2010). Here I share initial findings from a current study—conducted with colleague Tara Hudson—in the same vein.

With support from the Teagle Foundation (and in collaboration with Duke University and Dartmouth University), we surveyed a large sample of undergraduates at Notre Dame to understand how they understand moral and civic responsibility and related constructs. Students completed an extensive questionnaire that included both Likert items (including measures of moral identity, life goals, perspective taking, social justice orientation, and similar measures) and 14 open-ended response items. Our research design and initial quantitative finding are described in Hudson and Brandenberger (2016). Of interest to the present paper, we found that moral identity stood out as a salient, predictive construct. Students demonstrating higher levels of moral identity were more likely a) to demonstrate an ethic of engagement (as outlined by Narvaez, 2014), b) to engage in public service, and c) to express social justice orientations; they were <u>less</u> likely a) to believe that the world is just (Dalbert, 1999), and b) to agree that social dominance should be tolerated (Pratto et al., 1994). Various researchers (Aquino and Reed, 2002; Segal, 2001) suggest that moral identity may prompt moral attention and behavior, and play a role in reducing the gap between moral reasoning and action, an important element of practical wisdom, it can be argued.

We are exploring students' moral thinking further through analyses of the open-end measures. At the start of the survey overall (before the quantitative scales, noted above, to avoid priming responses) we asked students to respond to three writing prompts:

1. What does it mean to lead an ethical or moral life?
2. What are some principles and values you consider important?
3. What are the impediments to living a moral or ethical life?

Over 700 undergraduates at Notre Dame responded to each prompt. Our research team[6] developed a code book to categorize responses, and used word frequency analyses. Results are presented in Tables 2-

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[6] Thanks to Tara Hudson, postdoctoral research associate at the Center for Social Concerns, for her excellent collaboration on this research, and to our team of research assistants who met the challenge of coding with discipline and reliability.

4, with illustrative student comments included.

Table 2 **What Does it Mean to Lead an Ethical or Moral Life?**	**Percent**
Percent of student responses that matched each category, with sample responses.	
Following principles/codes/guidelines	**39%**
"Make the right decisions, act according to values/principles"	
"… to believe in a set of moral principles or values and strive to live up to or follow them in every aspect of life."	
Knowing/ doing the "right thing" or differentiating right from wrong	**27%**
" … do what you believe is right (depending on your own set of values) no matter who is watching"	
"Doing what is right all the time regardless of the circumstance or environment of the situation."	
Placing others before self/altruism	**27%**
"An ethical or moral life is committed toward making a difference our community and making a positive impact for humanity"	
"For me, leading an ethical life means putting the needs of others before our own. It is a matter of thinking and acting selflessly."	
Treat others with respect or dignity	**16%**
Doing no harm (avoiding negative behaviors)	**12%**
Drawing on faith /God (to make moral decisions)	**11%**
Facilitate justice/fairness (or treat others "the way I want to be treated")	**11%**

Table 3 ***What are some of the principles and values you consider important?***			
Word frequency analyses of question 2: percentages of students naming a principle			
Honesty	61%	Integrity	18%
Respect	31%	Trust	15%
Others	23%	Love	14%
Loyalty	21%	Family	11%
Kindness	19%	Faith	11%
Compassion	18%		

Table 4 **What Are the Impediments to Living a Moral/Ethical Life**	**Percent**
Percent of student responses that matched each category, with sample responses.	
Vices/Temptations	**30%**

"I think that there are many things that can do this, but most if not all of them fall into the following categories: temptation, lust, greed, envy, sloth, gluttony, etc."	
"Greed, temptation, jealousy, valuing material things."	
Negative social influences/pressure	**26%**
"When your peers aren't living an ethical life and are seemingly fine, it can be very discouraging if you are working very hard to make good decisions"	
"Popular culture and technology is an obstacle to leading a moral or ethical life because of all of the temptations that are presented to us (and presented so attractively as well)."	
Instant gratification, short-term focus	**16%**
"I think the impediments are comfort and ease of life. Oftentimes when someone must make a hard decision based on morals or ethical beliefs they want to hold, it comes down to what is easy and comfortable and what isn't so easy and comfortable."	
Impedes career success or material gain	**12%**
"Money and time have to be two of the greatest impediments to living a moral or ethical life, as people want to do as much as possible to earn as much money as possible, while spending the least amount of time possible completing tasks."	
"Desires for oneself to succeed – sometimes people screw others over to advance their position or status."	
Adverse circumstances (poverty, addition, inequity of opportunity)	**8%**
Holding competing values	**3%**
Lack of understanding of what moral/ethical living entails	**3%**

Taken as a whole, student responses to the open-ended questions suggest that:

a. Moral and ethical concerns are relevant in students' lives: they responded with breadth and depth overall.

b. Students hold a variety of conceptions of the moral life, characterizing it most often as a) the following of moral codes or doing the right thing, or b) valuing others above self (altruism), and treating them with respect. About one in ten spoke in terms of justice and fairness.

c. Students highly value *honesty:* over 61% named it as an important ethical value (with another 18% noting *integrity*).

d. Students experience various challenges as they attempt to live morally, in particular: a) intrapersonal temptation or weakness, and b) social influences they feel steer them toward short-term gratification.

e. Career pressure weighs on (at least some) students' minds as a potential moral impediment (a topic worthy of further exploration).

The results so far are preliminary, and local to a single university (thus limiting generalizability).[7]

Yet our data provide rich ground for understanding the development of practical wisdom. Clearly students are grappling with both moral precepts and how to manage themselves amid multiple, competing goals and complex social contexts. These are the types of developmental tasks that can set students on a trajectory of wisdom development (if they are provided with appropriate challenge and support).

We are currently examining student responses to a fourth prompt: "What if anything makes you want to live an ethical or moral life?" which may provide insight into student motivation, and tell more about how <u>central</u> moral concerns are in their lives (moral identity). We will report further findings in future publications.

Fostering Practical Wisdom: Implications for Higher Education

By three methods we may learn wisdom: first, by reflection, which is noblest; second, by imitation, which is easiest; and third by experience, which is the bitterest. — Confucius

The theory and research noted above point to more engaged and integrated models of learning in higher education as a means to foster practical wisdom. The following recommendations build on insights from developmental research, engaged learning theory, and neuroscience. To enhance the development of practical wisdom, faculty and practitioners will do well to:

1) Understand that adolescence and early adulthood represent prime opportunities for the development of wisdom, especially in the reflection rich context of higher education.

2) Frame learning as a *holistic* endeavor that engages students' minds and hearts, and attend to how students can develop emotional/social intelligence.

3) Utilize constructivist approaches that help students to link existing knowledge with personal experience to build new understandings of complex issues. Focus on deep understanding (vs. recognition and topical content) and the development of reflective judgment.

4) Work to integrate the curriculum, avoiding silos. Foster connected learning pathways.

5) Understand the power of motivation, which involves autonomy and mastery (Pink, 2009; McGill, 2016); and foster choice and self-authorship.

6) Attend to the development of moral reasoning in an integrated (not overly abstract) manner. Prompt understanding of how ethical precepts are influenced by context.

7) Build experiences (within the curriculum and co-curriculum) that help students develop moral identity and purpose in life, especially prosocial purpose.

8) Incorporate the study of moral exemplars (Colby & Damon, 1992; Matsuba & Walker, 2005) who

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[7] Our research colleagues at Duke University performed similar analyses, available upon request. Note: results across the two institutions on questions 1 to 3 appeared fairly consistent, perhaps due in part to the similarities of the universities in terms of selection criteria.

have negotiated well the demands of practical wisdom, an approach Aristotle suggested (Bronk, 2012).

9) Teach specifically about wisdom, drawing upon diverse traditions and scientific inquiry. Since practical wisdom involves "second order desires (wanting to have certain desires)" (Narvaez, 2014, p. 7), motivating students to desire wisdom is key.

10) Foster the human capacity for *moral imagination* as a context within which wisdom operates.

11) Offer forms of engaged learning across the curriculum (e.g., service learning, community-based learning) that immerse students in moral realms and diverse, civic contexts.

12) Utilize other identified high impact practices (Kuh, 2008) that involve significant investment and application on the part of students (McGill, 2016).

13) Understand how neurobiology influences development, and learn about neuroplasticity and how it may be enhanced via learning and experience.

The recommendations in the list above contrast sharply with traditional methods in higher education. To implement such efforts to promote practical wisdom will require significant investments of time and resources, and will challenge how colleges and universities are structured (e.g. departmental silos, the commodification of degree granting). The good news is that higher education has already begun to change in ways that can be supportive of wisdom: many have directed resources toward engaged forms of learning, begun to outline institutional-wide learning goals, and to attend to students' sense of meaning and purpose. Carolyn McTighe Musil (2009) notes that three salient reform movement in higher education—diversity, civic engagement, and global learning—offer unique opportunities for the development of personal and social responsibility, especially if they work toward integration.

Future Research

We are made wise not by the recollection of our past, but by the responsibility for our future.
<div align="right">— George Bernard Shaw</div>

Although wisdom-related research has progressed over the last few decades, there is much more work to be done, especially with respect to practical wisdom among college students. An important starting point is theory development: "There is nothing as practical [wise, I may say] as a good theory," noted Kurt Lewin (see Sandelands, 1990). Toward this end, the work (reviewed above) of Narvaez (2014, 2016), Ludvik (2016) and others provide important starting points. The key challenge will be to build theory that can account for the developmental interplay of individual change amid complex social contexts. As Craig (1996) suggests, the application of theory to practice is itself "an exercise of practical judgment and skill" (p. 77).

A second research challenge is measurement. While instruments assessing related constructs (such as

moral identity, purpose in life) are useful, measures specific to wisdom, are key. Gluck et al. (2013) review five measures of wisdom, and examine their relationship to wisdom-related constructs, concluding that none are exceptional (see also Bangen et al., 2013); they call for new measures designed to streamline research and overcome self-report limitations. A measure designed to examine developmental progress in practical wisdom, especially among young adults, would be an important contribution.

Given the pace of social change, technological innovation, and shifts in how information and knowledge are shared, changes in higher education are inevitable. The challenge is to adapt wisely and to foster practical wisdom through learning and scholarship that is relevant to emerging social challenges and the common good. Our future depends on collective wisdom—an additional concept worthy of study.

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