The Developmental Science of Phronesis

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In his 1970 plenary address to the American Psychoanalytic Association, Jean Piaget averred that "a day will come when the psychology of cognitive functions and psychoanalysis will have to fuse in a general theory which will improve both through mutual correction, and starting right now we should be preparing for that prospect by showing the relation that could exist between them" (Piaget, 1973, p. 250). For example, Piaget noted how affective repression might be better considered in terms of how sensori-motor schemes become conscious. He argued that catharsis was premised on an incorrect understanding of the constructive elements of memory. The emergence of reversible cognitive operations in middle childhood should undermine the diktat of the superego insofar as it permits a keener sense of justice; and he drew a connection between children's understanding of object permanence and the formation of object relationships in the second year. Piaget concluded that affective and cognitive mechanisms are always interrelated, and that "today is not too soon to start thinking of formulating a general psychology which would bear simultaneously upon the mechanisms discovered by psychoanalysis and upon the cognitive processes" (p. 261).

Piaget's confidence that his theory of cognitive development and Freud's psychoanalysis could fuse into a general theory was perhaps misplaced, but certainly not his effort to "improve both through mutual correction" or to show the relation that could exist between them, nor was he wrong to assert an interconnection between cognitive and affective processes. In that spirit the present chapter takes up possible ways to understand the relationship between a philosophical conception of phronesis and its psychological specification in developmental and personality science. No theoretical or philosophical concept is completely understood until the process by which it attains mature adult form is mapped out. I will later call this the *principle of*

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developmental adequacy. Although there have been attempts to discern a developmental

trajectory for practical intelligence from within Aristotle's writings (e.g., Ferkany, 2020), this

chapter will focus on how features of phronesis are understood within developmental (and

personality) psychology.

Phronesis is a philosophical concept that does heavy lifting in virtue ethics (Russell,

2009) and Aristotelian-inspired character education (Arthur, Kristjánsson, Harrison, Sanderse &

Wright 2017; Kristjánsson, 2015a). It is essential for understanding Aristotle's controversial

claims regarding the unity of virtues (De Caro & Vaccarezza, 2020), for example, and on one

account "virtue ethics cannot survive without a robust commitment to phronesis" (Russell, 2009,

p. 3), largely because in the absence of phronesis we "cannot establish an appropriate connection

between having a virtue and doing what is right unless every virtue includes phronesis" (p. 3).

Russell (2009) also makes clear that the importance he ascribes to phronesis is controversial.

Apart from its role in theories of virtue and virtue ethics phronesis is invoked

increasingly in domains somewhat further afield, including biomedical ethics (Kotzee, Paton,

Conroy, 2016; Kristjánsson, 2015b), psychiatric practice (Radden & Sadler, 2008), surgical

training (Elledge, Brennan, Mohamud & Jones, 2020), leadership in business management

(Shotter & Tsoukas, 2014), journalism (Quinn, 2007), and forensic accounting (Howieson,

2018). Phronesis is deemed crucial for clinical supervision (Fowers, 2003), teacher and science

education (Birmingham, 2004; Lapsley & Chaloner, 2020; Salloum, 2017), and for the practice

of social science inquiry more generally (Flyvbjerg, Landman, & Schram, 2012).

For some of these purposes the invocation of phronesis, or cognate terms such as

practical reasoning or practical wisdom, is a covering term for things thought crucial for

professional practice, such as moral perception, deliberation about particulars, or the importance

of having an overall conception of the good life, all for which Aristotle is properly credited.

Sometimes a hand is waved in Aristotle's direction by psychologists who study wisdom. More

rarely is the role that phronesis plays within Aristotle's ethical theory the starting point of

modern application in general psychology and the professions, and not surprisingly this is more

often the case when philosophers lead the way with detailed exegesis of the Aristotelian corpus

(e.g., Carr, 1991; Darnell, Gulliford, Kristjánsson, & Paris, 2019; Kristjánsson, 2015a). Yet the

fact that the language of virtue, practical wisdom and phronesis is spoken at all outside of the

friendly confines of ethical theory and virtue ethics is testament to the enduring relevance of

Aristotle's ethics for understanding fundamental human concerns about character, virtue and

how to live well the life that is good for one to live. And within the philosophical and empirical

sectors of moral psychology it has certainly promoted robust dialogue.

Phronesis at the Mending Wall

Recently I invoked the "mending wall" from Robert Frost's famous poem (of the same

title) to describe the robust interdisciplinary dialogue of moral psychologists and philosophers

(Lapsley, 2016). As the poem intimates good walls make good neighbor not because walls

enforce distance and prevent unwelcome intrusion (the poem's iconic line is often interpreted

this way) but rather because of the opportunity it affords for common endeavor "at spring

mending time." The mending that goes on is not only to the boundary wall in disrepair but to

neighborly relations kept distant over winter. Repairing the wall, passing the stones from one

side to the other, is an occasion for constructive engagement to achieve a common purpose. To

push the metaphor I argued that repairing a common wall at spring mending time is not unlike

the give-and-take of interdisciplinary engagement across the philosophical and empirical

boundary of moral psychology. One hopes that such dialogue, in the spirit of Piaget, improves

both through mutual correction with the common goal of generating empirically responsible moral philosophy and philosophically responsible moral psychology. Indeed, there is widespread consensus, at least with respect to virtue ethics, that credible philosophical reflection must begin with the facts of human nature and accord with psychological realism (Flanagan, 1991; McKinnon, 1999), and that is usually a good place to start the conversation.

Of course philosophers and psychologists have different jobs to do that require relative autonomy in the way they go about their work (Tiberius, 22015); and no one can be expected to attain levels of expertise on texts that confound even specialists in another field. Not surprisingly this has led to palpable tension at the mending wall. Silverstein and Trombetti (2013) find it odd, for example, that developmental psychology has "largely ignored Aristotle's rich and detailed account of moral development" (p. 236). They argue that "many of the perplexing issues in current moral development theory can be resolved through the use of Aristotle's exceptionally rich and systematic account of moral development" (p. 233).

Smartwood (2020) turns the tables on Flanagan's (1991) well-known stricture that moral philosophical claims must adhere to a "principle of minimal psychological realism" by asserting a principle of minimal philosophical adequacy required of psychological theory. On this principle, for example, wisdom research fails. "Contemporary measures of wisdom and its components may pick out some necessary prerequisites of practical wisdom," he writes, "but they do not measure a philosophically plausible practical wisdom or its components" (p. 71). In fact, Smartwood (2020) concludes that no measure will suffice because practical wisdom cannot be measured in the first place. No philosophically plausible assessment of wisdom is possible, which will be unwelcome news to wisdom researchers. The way forward, according to Smartwood (2020), is not to give up the study of practical wisdom completely but for

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philosophers to lead the way by defining which components of wisdom are rationally defensible, that is, which meet minimally adequate philosophical criteria, then psychologists can follow along to determine how these components develop or map out other empirical relationships accordingly. The message for psychologists, in other words, is to stop doing what you're doing and do what we tell you instead, a division of labor that certainly puts psychology in its place.

The most bracing example of tension at the mending wall is Kristjánsson's (2012) complaint that the desired interdisciplinary cooperation has not materialized and the fault lies with psychology. Psychology is the "weakest link" (p. 103) and has "some growing up to do" (p. 115). According to Kristjánsson (2012), "Psychology in general, and moral psychology in particular, has not provided us with the ammunition that virtue ethicists and virtue educators, at least, had hoped for" (p. 115). The problem is that psychology is rife with incorrect assumptions which must be corrected if it is to be a reliable partner on matters of virtue development. For example, psychologists seem to conflate two of "Hume's laws" --- the fact-value and is-ought distinctions – and by doing so render their research a muddle. As remedy psychology must abandon the fact-value distinction, embrace moral realism, and respect the is-ought disjunction. Psychology has no business giving prescriptive advice and telling people what to do, that is the job of "moral philosophers, moralists and preachers" (p. 112). Psychology should stay in its lane. The recommended division of labor is for moral philosophers to articulate and justify the overall view of the good life, for psychologists to discover facts about it (the "ammunition" for virtue educators) and for educators to figure out how to package it for instruction.

However one might want to dispute the details of this analysis it does seem like fair game if philosophically responsible moral psychology is an intended and realizable goal. In the remainder of this chapter, and in the spirit of Piaget, I hope to show that important features of

phronesis have empirically grounded counterparts in developmental science. What I am after is, to translate the Aristotelian lexicon into psychological categories that make sense in developmental and personality science so that phronesis is anchored to empirically attested constructs with known developmental trajectories. While it remains to be seen if I am staying in my proper lane, I am convinced that a translational approach is necessary at the mending wall if the resources available to each party of the dialogue are to be realized.

The Chapter Plan

The order of argument will unfold in the following way. In the next section I will describe prominent features of phronesis that have surfaced in recent influential philosophical analyses that show promise for psychological specification. Next, I explore the resources of various psychological constructs that account for these features. For example, the way that phronesis works as a meta-virtue is specified in terms of metacognition; and the development of meta-logical and meta-rational capacities provides a framework for understanding phronesis as a developmental achievement. Social cognitive theories of personality provide constructs and mechanisms to account for perceptual sensitivity and discriminative facility credited to phronesis, including attentional and encoding processes that influence how events are represented, interpreted and remembered. Finally, research on moral self-identity and its development link the operations of phronesis to dispositional character and provides the eudaimonic blueprint that drives the work of phronesis.

Phronesis and its Components

Phronesis is a virtue of practical reasoning or an excellence of deliberation that is attached to every character (as opposed to natural) virtue. It orients each virtue towards its

characteristic mean, which is to say, to what is fitting or required for the occasion: to engage in feelings or actions "at the right times, about the right things, towards the right people, for the right end, and in the right way" (Aristotle, 1106b: Book ii, Chapter 6, p. 46). The work of phronesis is accomplished with a suite of additional practical virtues, including comprehension, sense, intelligence (*nous*), and cleverness (Aristotle, Book vi). Following Russell's (2009) exegesis, comprehension is a discriminatory ability to read a situation, to recognize what is salient, to attend properly to advice, to perceptively apprehend the views and actions of others. Sense is "correct discrimination of what is reasonable," (p. 21), a judgment about what is decent, or a "correct judgment of the decent person" (Aristotle, 1143a20 Book vi, Chapter 11 p. 165), which would seem to require an ability to sympathetically discern the perspective of others. On Russell's (2009) view, "Comprehension and sense seem plausible as aspects of phronesis: it would be extraordinary if someone with an excellence of deliberation lacked the ability to reflect that intelligently on what to do in a more general way, and from multiple perspectives" (p. 21). Intelligence is the aspect of phronesis that "correctly adjusts one's grasp of what one must do in particular circumstances as regards a general end" (Russell, 2009, p. 22).

And then there is cleverness, "which is such as to be able to do the actions that tend to promote whatever goal is assumed and to be able to achieve it" (Aristotle, 1144b25, Book vi, Chapter 13, p. 169). Cleverness calls to mind contemporary discussion of performance virtues (e.g., Baehr, 2017) in the sense that cleverness (like performance virtues) can be praiseworthy or vicious depending upon the goal. For Aristotle, virtue requires the right decision and the right decision requires cleverness, but if "the goal is fine, cleverness is praiseworthy, and if the goal is base, cleverness is unscrupulousness; hence both intelligent and unscrupulous people are called clever" (Aristotle, 1144b25, Book vi, Chapter 13, p. 169).

Noel (1999) offers three different interpretations of phronesis: (1) rationality, (2) situational perception and insight, and (3) the moral character interpretation. The rationality interpretation draws attention to what should be done in particular situations by careful deliberation over a chain of reasoning guided by an understanding of proper ends. The situational perception interpretation emphasizes the role of phronesis in discerning what is best to do given the particularities of specific contexts. It is a kind of moral perception that Nancy Sherman (1989) describes as a "stage of construal" (p. 40). It is a way of seeing that classifies circumstances as possible occasions for action. But it is not entirely a cognitive matter. We see through our emotional dispositions. "We notice through feeling what might otherwise go unheeded by a cool and detached intellect" (Sherman, 1989, p. 45). Although cognitions are not left aside, indeed, they are "essential concomitant for experiencing the emotions" (p. 45), nonetheless, without the emotions "we do not fully register the facts" (p. 47).

Noel's (1999) third interpretation of phronesis draws attention to the way it attaches to moral character. What action phronesis bids one to take in a particular situation is tied to who one is as a person. What you see in a moral landscape depends on who you are; it depends on your moral character. Dunne (1993) describes phronesis on this interpretation as the "ordering agency in our lives" (p. 241) and as "personal knowledge in that in the living of one's life [phronesis] characterizes and expresses the kind of person one is" (p. 244). Indeed, on Dunne's view, "phronesis comes into its own only in the situations that draw the self into action (p. 268)…it is not a cognitive capacity that one has at one's disposal but is, rather, very closely bound up with the kind of person that one is" (p. 273). A virtuous action implies an intimate connection to the self of the agent, unlike the works of techne that can be evaluated without

implicating the craftsman. Hence, a virtuous action "can never be identified as such without reference to the disposition of the agent who performs it" (p. 247).

Recently Darnell and colleagues (2019) argued that phronesis is a multi-component construct with multiple functions that establishes its central role in motivating moral behavior. Four components are identified. The first function of phronesis is constitutive in the sense that it allows an agent to pick out the salient features of situations from an ethical perspective. Phronesis also integrates the application of virtues in complex situations where several might be summoned and there is a possibility they might conflict. In this sense phronesis functions as a "meta-virtue" that coordinates the pull of individual virtues, enacts them as situations require, and adjudicates their application if several are summoned (Burbules, 2019). The third function is to guide the work of virtues in terms of a blueprint of a good life (eudaimonia). The fourth function is emotion regulation, which involves "the fusion of emotions with reasons, which calibrates the motion in line with the morally and rationally medial state of feeling, and the subsequent harmony between the two" (p. 120).

On the basis of this conceptualization Kristjánsson, Darnell, Fowers, Moller and Pollard, 2020) designed an assessment strategy that utilized numerous standard measures of various psychological constructs (e.g., moral reasoning, moral perception, wise reasoning, moral identity) to serve as proxy assessments of the four phronesis components; and several control variables (e.g., Big 5 personality, prosocial tendencies) were also assessed. Structural equation modeling identified four latent factors that approximated the four components and were so labeled; and this structural and measurement model was documented in samples of both adults and adolescents. Hence this project moved phronesis across the mending wall from philosophical to psychological construct. My own approach also aims to understand phronesis in terms of well-

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attested psychological variable and processes, but where the ascription of phronesis is either optional or superfluous.

Taking Stock

What features of phronesis, then, are strong candidates for psychological specification, in light of the preceding review? We learned that phronesis is a way of seeing, a way of classifying situations as requiring this or that virtuous action. Phronesis is a discriminative facility to notice ethically relevant features of situations. There is an emotional resonance to phronetic moral perception. We respond to the facts of the matter through emotional dispositions, although cognition walks closely alongside. Indeed, on Russell's (2009) reading, "Aristotle understands the passions as all involving judgment…and distinguishes passion and practical reason by the difference in the *senses* in which they 'possess reason,' not in *whether* they possess reason" (p. 14). Similarly, De Caro, Vaccarezza and Niccoli (2018) insist on the integration of reason and emotions in their conception of phronesis as ethical expertise. Wisdom is "affectively engaged," in their view (p. 290). I have already noted Piaget's take on this in the introduction: affect and reason are always interrelated. It would appear, then, in the parlance of personality psychology, that phronesis is importantly constituted by cognitive-affective mechanisms. I will return to this later.

Three additional themes are candidates for psychological specification: phronesis as meta-virtue, the moral character interpretation of phronesis, and the argument that the work of phronesis requires a conception or blueprint of a good life in order to function properly. Regarding the first theme, we have seen that phronesis is justly considered a meta-virtue insofar as it is a virtue that enacts and manages the application of other virtues. Indeed, metacognitive themes abound in various accounts of phronesis (Lapsley, 2019; also Lepock, 2014, for the case

of intellectual virtues.). Knowing when and how to exhibit virtue, at the right time, in the right way, towards the right ends is a metacognitive capacity which has a well-attested psychological literature that is a ready resource for understanding phronesis as a developmental construct.

The moral character interpretation of phronesis strongly implicates the self as moral agent. Dunne (1993) makes the case, in his words, for the "nondisposability of the agent's self— so that the self appears not within the field that can be surveyed by phronesis but rather in the very activity of phronesis itself" (p. 269). Sherman (1989) notes that the "agent is not led blindly by certain ends, but controls them to the extent to which he controls is own character." She goes on to note that "What appears to him as ultimately good and worth pursuing is a matter of his interests and dispositions" (p. 33).

Of course this has implications for the blueprint aspects of well-functioning phronesis. A conception of the ends of a good life will help an agent construe the particulars of a situation at the moment of action, but it is also the case that what appears to one as "ultimately good and worth pursuing is a matter of his interests and dispositions" and "how the end of good living will appear to an agent will have to do with how the agent *sees* the salient features of circumstances" (Sherman, 1989, p. 33, emphasis in original). The moral perceptual capacities granted by phronesis attach to selves with personalities that develop. This should not be controversial, and in the remainder of the chapter I want to point in the direction of psychological literatures that have implications for understanding phronesis in terms of metacognition, moral selfhood and personality development, and along the way address the blueprint feature of phronesis.

Phronesis and Developmental Science

Nora Newcombe (2013) put into words a core conviction that developmental psychologists rarely say out loud: "No theory of human knowledge or skill would be complete without an answer to the question of how the knowledge or skill is acquired" (p. 479). Every theory of adult functioning, whether it touch on personality, thinking, social cognition, aggression, virtues, clinical dysfunction, and most everything else, is incomplete without a plausible account of the developmental trajectory that yields adult forms as outcomes. On this score I am tempted to lay down *a principle of developmental adequacy* that theorists of virtue and moral character must eventually address in the evolution of their research programs. As Newcombe (2013) put it, in the case of cognitive science, "thinking about acquisition can place important constraints on cognitive science and can strengthen or rule out specific theoretical models of adult functioning" (p. 479) --- and, I would add, this is not just true for cognitive science.

Phronesis and Metacognition. The metacognitive aspects of phronesis are implicated in its work as a meta-virtue, in particular, the way it monitors the recruitment and application of requisite virtues at the right time, in the right way, for the right ends. It is not enough for the effective moral agent, as Sherman (1989) puts it, "to have the right states of character; in addition one must have capacities for knowing when and how to exhibit them" (p. 50). The developmental literature on metacognition provide insight on what *knowing when* and *knowing how* looks like as well-attested psychological constructs.

Metacognition is a fundamentally important concept to cognitive development (Flavell, 1979; Flavell, Miller & Miller, 2002; O'Leary & Sloutsky, 2019), educational psychology (McCormck, Dimmitt & Sullivan, 2013) and the learning sciences (Hartman, 2002; Veenman, Van Hout-Wolters & Afflerback, 2006), and its range of application is extended to many

domains, including epistemic thinking (Barzilai & Zohar, 2014), intellectual virtues (Lapsley & Chaloner, 2020; Lepock, 2014) and science education (Zohar & Barzilai, 2013).

On standard accounts metacognition involves metacognitive knowledge and metacognitive control processes (e.g., Schraw & Moshman, 1995). Metacognitive knowledge "consists primary of knowledge or beliefs about what factors or variables act and interact in ways to affect the course and outcome of cognitive enterprises" (Flavell, 1979, p. 907). It can take the form of declarative knowledge (knowing *that*), procedural knowledge (knowing *how*) or conditional knowledge (knowing *when*). For example, declarative knowledge includes knowledge of oneself or of others as learners and the factors that influence performance; or more specifically how the knowledge of *task* conditions influence performance, or how knowledge of thinking, learning and problem solving *strategies* can be used to achieve goals (Zohar & Barzilai, 2013). Procedural knowledge concerns how to execute procedural skills effectively and with what degree of automaticity. Conditional knowledge is knowing when and why to apply cognitive actions, and "may be thought of as declarative knowledge about the relative utility of cognitive procedures" (Schraw & Moshman, 1995, p. 353).

Here is the connection to phronesis: any individual who functions with a high degree of declarative, procedural, and conditional knowledge for any learning task is engaging in phronesis insofar as intellectual virtues are required. Alternatively, it can also be said that any individual who possesses a high degree of declarative, procedural or conditional knowledge in preparation for action requiring the enactment of virtue is activating metacognitive moral knowledge. Put differently, the knowing *when* and knowing *how* of phronesis is metacognitive in nature and the metacognitive development literature is informative on how it works and how it develops.

Indeed, there is now some interest in the measurement of moral metacognition (McMahon & Good, 2015).

Metacognitive control processes also have a strong claim on phronesis. Cognitive regulation typically involves skills of *planning* (setting goals, selecting and sequencing strategies, allocating resources), *monitoring* (awareness of comprehension and whether performance is hitting the mark) and *evaluation* (as assessment of whether learning or behavioral goals have been achieved), and similar processes that otherwise guide, monitor, control and regulate cognition (Zohar & Barzilai, 2013). Although metacognition is invariably studied on the psychology side of the mending wall in the context of learning, memory, expertise, comprehension and similar cognitive achievements, the fundamental claim of this chapter is the work of phronesis as a meta-virtue maps onto the facets of metacognitive knowledge and metacognitive control processes; and there is little reason to think that metacognition should somehow work differently when discerning what virtue requires than what learning or other cognitive action requires. Phronesis has declarative, procedural, and conditional elements. It is involves planning, monitoring and evaluation. Indeed, the meta-virtue processes attributed to phronesis are isomorphic with the various metacognitive components; or else the work of phronesis cannot be accomplished without them.

The metacognitive framing of phronesis is preferred for two additional reasons. First, phronesis does not have a credible developmental story and hence falls short of the principle of developmental adequacy. Second, there are very few clear suggestions about how phronesis should be inculcated in the education of children and adolescence. Metacognition is preferred on both grounds. There is clear evidence, for example, that metacognition is both educable (Callender, Franco-Watkins & Roberts, 2016; Zepeda et al., 2019; Zepeda et al., 2015) and

firmly located within developmental periods from early childhood to adulthood (e.g, Geurten &

Willems, 2016; Goupil & Kouider, 2019; O'Leary & Sloutsky, 2017; Weil et al., 2013;

Whitebread & Neale, 2020).

Deanna Kuhn (2000) makes several points about metacognitive development that have

important implications for the case I am making concerning phronesis. First, Kuhn (2000)

locates the developmental origins of metacognition in young children's emerging theory of mind

(see also Carruthers, 2009 on the connection between mindreading and metacognition),

suggesting a plausible developmental origin for phronesis. She further identifies meta-level

operations that govern the two kinds of metacognition discussed earlier (declarative and

procedural metacognition), with meta-level operations targeting procedural knowledge being

most influential. The term *metacognitive knowing* is the term reserved for meta-level operations

on declarative knowledge (and includes *metatask* knowledge about task goals and *metastrategic*

knowing about the availability of strategies) while *metastrategic knowing* is the meta-level

understanding of procedural knowing.

Kuhn (2000) argues that metastrategic knowing and metacognitive knowing are

developmentally important for two reasons. First, it shifts the burden of developmental

explanation away from performance on tasks to the meta-level. Siegler's (1996) "overlapping

waves" model of strategy use, for example, suggests that children bring multiple strategies to

bear on problem-solving tasks, not all of which work well, and over time come to inhibit the

inferior strategies in favor of the superior ones. But this shift in strategy use implicates a meta-

level process "that dictates which strategies are selected for use on a given occasion" (Kuhn,

2000, p. 179). Not only does the meta-level dictate which strategies are used, but it also receives

feedback from task performance. "This feedback leads to enhanced meta-level awareness of the

goal and the extent to which it is being met by different strategies, as well as enhanced awareness and understanding of the strategies themselves, including their power and limitations" (Kuhn, 2000, p. 179). Exchange the term "strategies" with "virtues" and what is described is the work of phronesis. Phronesis is a form of metastrategic and metacognitive knowing, and developmental change in phronesis is thereby directed to these meta-levels.

The second reason for the developmental importance of metastrategic and metacognitive knowing is that is expands the scope of metacognition research. Kuhn (2000) notes that metacognition was almost exclusively concerned with metamemory when it first emerged as a target of developmental research in the late 1970s, but the study of metacognition has since expanded to other topics. At the time of her writing Kuhn (2000) mentioned text comprehension, problem-solving, and reasoning as examples, but since then metacognition is presently invoked in many other domains besides, including intellectual virtues and personal epistemology; and for understanding phronesis itself (the claim of this chapter).

What drives the expanding influence of metacognition to so many other domains? "It is a reasonable hypothesis," according to Kuhn (2000), "that the nature of strategy-metastrategy relations shows some generality across different kinds of cognition, specifically in the ways in which meta-level processes operate to select and regulate performance strategies" (p. 180). To this I would add *knowledge about virtues* (and moral cognition more generally) as one of the "different kinds of cognition" to which the metastrategic knowing and metacognitive knowing operate "to select and regulate performance" in the moral domain; and for which there is compelling developmental explanation.

Indeed, as Moshman (2009) points out, even preschool children are rational agents but come to show increasing sophistication with development with respect to metacognitive aspects

of rationality: awareness, evaluation and control of inferences, meta-logical understanding and epistemic reasoning. These meta-rational capacities (Moshman, 2009) and meta-level functions (Kuhn, 2000) provide compelling developmental grounding to the notion of phronesis as a meta-virtue, with the added advantage that they come with well-attested theoretical and empirical bases for its development (Lapsley, 2019).

    <u>Phronesis as Moral Perception</u>. We saw how phronesis involves a kind of moral perception that allows agents to notice key features of situations. It is a way of seeing, a mode of construal that makes possible a discernment of ethically-relevant particulars. This was called the constitutive component of phronesis (Darnell et al., 2019) or the situational perception and insight interpretation (Noel, 1999). Events do not come prelabeled or presorted into conceptually sensible categories except for the schemas that agents bring to their perception of the socio-moral landscape (Sherman, 1989; Fiske & Taylor, 1991). Moreover, the language of construal and discernment does not imply a completely cognitive mode of perception without also implicating emotions. As Sherman (1989) put it, "Often we see not dispassionately but because and through the emotions" (p. 45). Hence the psychological specification of this facet of phronesis will have to include cognitive-affective mechanisms and also a way to describe the discriminative facility that comes with the kind of moral perception that it permits.

    Social cognitive theories in personality science provide the meta-theoretical framework to understand this aspect of phronesis. On this view the accessibility and activation of mental representations, including schemas of self and others, personal goals, scripts, expectancies and other social cognitive constructs shape the meaning we extract from situations (Higgins & Bargh, 1987). The activation level of social cognitive units of personality is determined by personal and situational factors, and "Active knowledge structures, in turn, shape the meaning people assign to

new social inputs (Cervone & Shoda, 1999, p. 18). Moreover, social cognitive theories recognize a reciprocal relationship between cognitive and affective processes (Cervone & Shoda, 1999). Two social cognitive approaches to personality coherence are of particular interest: Walter Mischel's Cognitive-Affective Personality System" (CAPS) and Daniel Cervone's "Knowledge and Appraisal Personality Architecture" (KAPA) offer powerful conceptualization of cognitive-affective appraisal mechanisms as envisioned by phronesis.

The CAPS is a broad metatheoretical framework that models the complex organization of personality and the dynamic interaction of its cognitive and affective components both within the personality system and across situations (Mischel & Shoda, 1995, 2008). It accounts for how personality coheres as it navigates across situational complexities while rejecting trait approaches to personality that entail unrealistic cross-situational consistency. Instead, CAPS describes where and how to locate the stable behavioral signature that denotes personality coherence. These appear as stable patterns of *if-then* profiles of situation-behavior relation across the multiplicity of situations wherein our lives are enacted; and this depends importantly on how mediating social cognitive units of personality (e.g., cognitive-affective schemas) encode features of situations. Not surprisingly CAPS figures prominently in the situationism debate about character (see Doris, Stich, Phillips, & Walmsley, 2020; Miller, 2020), but what I want to emphasize here is the appraisal and construal aspect of the CAPS framework.

Social cognitive units of personality and their activation (and deactivation) underwrite the discriminative facility in noticing key features of our environment. It alerts us to virtue-relevant occasions for action. Mediating cognitive-affective units do not simply react and encode the features of situations. Rather, as Cervone and Shoda (1999, p. 17) put it, individuals "create stable patterns of personal experience by selecting and shaping the circumstances that make up

their day-to-day lives," and in the manner required by phronetic construal. Indeed, the "personality system anticipates, interprets, rearranges, and changes situations as well as reacts to them. It thus is active and indeed proactive, not just reactive. It not only responds to the environment but also may generate, select, modify, and shape situations in reciprocal transactions" (Mischel, 1999, p. 49).

Cervone's (2004) KAPA account of the architecture of personality is a further specification of the CAPS framework and is complementary to it. KAPA draws attention to the knowledge and appraisal aspects of social cognition. Knowledge is comprised of enduring mental representations of the social landscape, including representations of self, persons, and things. Cervone's example(s) includes cross-situational *knowledge that* one is *shy*, or "*I had a happy childhood"* or "*I want to be a better person"* or to situationally-specific knowledge like "*I'm a perfectionist about schoolwork"* or "*I usually get nervous when speaking in public."* Of course the examples can be extended easily to representations of morally relevant and virtue-salient personal and situational knowledge. Appraisal processes drive relational judgments about the meaning of events as it relates to their concerns, plans, goals, and other "affectively significant evaluations of the personal implications of information" (Cervone, 2004, p. 187). Appraisal is affectively significant because making judgements about the personal meaning of knowledge information comes with emotion-laden valence.

Moreover, knowledge and appraisal mechanisms interact in complex ways. Indeed, the social cognitive literature provides robust evidence of how knowledge structures influence appraisal of events (Fiske & Taylor, 1991). As Cervone (2004, p. 188) put it, "Knowledge constructs influence appraisal both through passive processes, in which accessible constructs are used to categorize a stimulus, and through active, strategic processes that occur when constructs

receive conscious attention." He goes on to note that "Preexisting knowledge influences not only the encoding of features of an encounter but also which features are noted" (p. 188).

This is perhaps sufficient to draw implications of CAPS and KAPA for the moral perception function of phronesis. These social cognitive frameworks provide a strong theoretical basis for understanding phronetic perception: it detects particulars, identifies salient features, makes possible discriminative facility in perception of the social landscape, is cognitive-affective in operation. Moreover, these perceptual functions are not simply peripheral operations but are driven by central, top-down cognition of plans, goals, expectations, aims and evaluative standards, a consideration to which I return below with respect to the blueprint aspect of phronesis.

In one sense the affinity of phronetic perception with social cognitive personality theory vindicates the psychological realism of at least this aspect of phronesis. Something like what phronesis describes with respect to the cognitive-affective discernment-of-particulars is given full theoretical expression in CAPS and KAPA and in social cognitive research more generally. The cognitive-perceptual mechanisms described by these personality frameworks are in reciprocal interaction with social systems and with affective processes (Cervone & Shoda, 1999). Hence social cognitive theories of personality provide real cover for the "situational perception and insight" interpretation of phronesis. However, the value-added yield of phronesis is slight by comparison; and there would be little interest in treating phronesis itself as a psychological construct or in exchanging the language of social cognitive theory for that of phronesis, its significant role in ethical theory notwithstanding.

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One final point deserves mention. The reader might have noticed that KAPA's knowledge and appraisal mechanisms share a certain affinity with two components of metacognition discussed earlier: metacognitive knowledge and metacognitive control processes. I am not aware of any attempt for forge a theoretical integration of the two areas of research, metacognition and the architecture of personality described by KAPA, but the payoff could be significant. It could provide, for example, a developmental story for personality architecture (via metacognitive development) but also a way of folding metacognition into personality (via KAPA). This is a promising line of research for the future.

Phronesis and The Moral Self. Thus far we have seen how the meta-virtue facet of phronesis is metacognitive in nature; and how the constitutive aspect of phronesis, the situational perception and insight interpretation, is accounted for by social cognitive personality theory. There is still the matter of the moral character interpretation that draws attention to the centrality of the agent's moral self to the operation of practical reasoning. This is particularly clear, as we have seen, in Dunne's (1993) exegesis of Aristotle's phronesis. He draws attention to the "non-disposability of the agent's self" (p. 269). Phronesis does not float above the self, is not something separate from it. "The self appears not within the field that can be surveyed by phronesis but in the very activity of phronesis itself." (p. 269). Phronesis is "very closely bound up with the kind of person one is" (p. 273). The "kind of person one is" draws attention to a characterological basis of phronesis, to its tight connection to personality organization or to the indissociable relationship between phronesis and the moral self.

The moral self is a robust area of research in personality and developmental science. One prominent line of research treats belief in the moral true self as a form of essentialism to which many subscribe (e.g, DeFreitas, Cikara, Grossman, & Schlegel, 2017; Heiphetz, 2019; Heiphetz,

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Strohminger, Gelman & Young, 2018). Another extends social cognitive theory to explain moral

self-identity (Aquino & Reed, 2002; Aquino, Freeman, Reed, Lim & Felps, 2009), and moral

character, personality and virtue (Lapsley, 2019; Lapsley & Narvaez, 2004). It is the social

cognitive view of moral self-identity that concerns me here, not the least for its affinity for

integration with social cognitive theories of personality noted earlier.

On the social cognitive view the dispositional features of moral character are understood

in terms of the accessibility of morally-relevant "knowledge and appraisal" schemes for

construing personal and social events. A moral-virtuous person, on this account, is one for whom

moral norms or virtues are chronically accessible, deeply central and important for self-

understanding, easily primed by contextual cues, and readily enacted into moral behavior.

Indeed, moral identity is a robust predictor of a wide range of moral behavior (Hardy & Carlo,

2005; Hertz & Krettenauer, 2016; Lapsley & Hardy, 2017) and moral emotions (Lefebvre &

Krettenauer, 2019). Indeed, I am aware of no other variable with a better empirical record in the

moral domain (Lapsley, 2019). But what is not observed in the moral identity literature, or the

moral true self literature for that matter, is the language of phronesis.

Of course the absence of phronetic language could be held against the philosophical

adequacy of the moral identity construct. In their four component model of phronesis Darnell

and colleagues (2019) carve out a role for moral identity but it is relatively inert without an

infusion of blueprint guidance provided by phronesis. "Phronetic persons," they write, "possess a

general conception of the good life (eudaimonia) and adjust their moral identity to that blueprint,

thus furnishing it with motivational force" (Darnell et al., 2019, p. 119). In other words, rather

than moral identity motivating moral action directly, as it is more commonly understood in the

moral identity literature, moral identity just sits there without motivation until prompted by

phronesis. Phronesis brings along a blueprint. Phronesis motivates moral behavior from a great height at a meta-distance, working through the more proximal offices of moral identity down below closer to the behavioral field.

That virtues require a blueprint of a good life to inform decisions about concrete cases is a standard of Aristotelian virtue theory (Russell, 2009). One can agree with this standard without conceding that phronesis, as understood by Darnell et al (2019), has much to do with it. For one thing it runs counter to Dunne's (1993) view that the self appears in the very activity of phronesis itself and is "very closely bound up with the kind of person one is." The "kind of person one is" just is the moral self. The moral self is not handed a blueprint by phronesis, it constitutes the blueprint. The self's identification with morality just is the blueprint that guides moral perception and guides moral action. There is nothing for phronesis to do. Moral identifications denote the "importance of what we care about" (Frankfurt, 1988) and the "horizon of significance" (Taylor, 1989) that informs where we stand, what we believe, and what is to be done. Hence, on this account, insofar as the exercise of virtue requires a blueprint, moral self-identity provides it. Moral identity commitments carve out what is essential, central, and important to self-understanding in a way that provides "the frame or horizon within which I can try to determine from case to case what is good or valuable or what I endorse or oppose" (Taylor, 1989, p. 27).

Conclusion

Russell (2009) notes, in his important analysis of phronesis, that it "turns out again to be nothing mysterious, but a settled ability that we can both understand in its own terms and compare it with very familiar and everyday skills" (p. 23). Of course being explicable, familiar and not a mystery is not the same as being simple or straightforward, as his analysis shows. One

aim of this chapter was to show that the work of phronesis, although variously understood even within Aristotelian ethics, is not a mystery on the psychology side of the mending wall. The various functions or interpretations of phronesis translate in a straightforward way into robust psychological literatures concerning metacognitive development (phronesis as a meta-virtue), social cognitive personality theory (phronesis as cognitive-affective perception-and-insight) and moral self-identity (phronesis as moral character). Phronesis contains multitudes, and to wave it at the professions, at educators, at psychologists over the mending wall, without translation into well-attested theories and constructs will bring pause to much needed interdisciplinary work.

But translation brings both promise and peril. The promise is the possible development of an interdisciplinary moral psychology that is theoretically robust, empirically well-attested, and philosophically tenable. Russell (2009) has something like in mind when he suggested that an "empirically formidable theory" will likely result when the best personality theory on offer is combined with a "virtue theory that conceives of the virtues as involving skills and excellences of practical reasoning and deliberation" (p. xii). But he also thinks that the best personality theory on offer comes out of social psychology research that champions situationism, rather than social cognitive theories of personality coherence that provide psychological specification of phronesis and explains situationism.

The peril of translation comes in two forms. One is that phronesis is absorbed into psychological frameworks with no clear value-added explanatory role other than what is otherwise provided by psychological theory. In this case phronesis becomes something like the "luminiferous ether" theory once held necessary to explain the transmission of light until later Einstein's special relativity found it superfluous (and the Michelson-Morley experiment

disproved it). I want to suggest the possibility that the role of phronesis in Aristotelian virtue ethics is much like the role of ether in physics, once thought crucial but now expendable.

The second peril is that phronesis is held out as a psychological variable in its own right, which must seem like the only way psychologists will get it right about virtue and character. Either option, the replacement of phronesis with psychological constructs or the transmutation of phronesis into a psychological construct, will provoke unproductive tension at the mending wall of moral psychology. Translation of phronesis into the terms of reference of empirical psychology keeps faith with the naturalizing tendencies sweeping through ethics but does not diminish the centrality of phronesis in Aristotelian virtue ethics where it still has important work to do to make sense of the Aristotelian corpus. And treating phronesis as a distinctive psychological variable will simply be unpersuasive when compared with extant theory and evidence. It would not be clear just what phronesis is supposed to do or what it would explain; in which case the use of the phronetic lexicon becomes optional, superfluous, or distracting, or a form of special pleading.

This chapter explored the resources of social cognitive theories of personality and development to provide a possible grounding of practical wisdom. Social cognitive theory provides constructs and mechanisms to account for perceptual sensitivity and discriminative facility credited to phronesis, including attentional and encoding processes that influence how events are represented, interpreted and remembered. Social cognitive approaches to personality, such as the KAPA and CAPS models, and social cognitive approaches to moral self-identity and its development, link the operations of phronesis to dispositional character; and the development of metacognition and meta-logical and meta-rational capacities provides a framework for understanding phronesis as a meta-virtue and as a developmental achievement.

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