Influences: Skills and Knowledge
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“A good will is not good because of what it effects or accomplishes, not because of its fitness to attain some proposed end, but good just by its willing, i.e., in itself…” (Kant, 1785/2011, p. 17)

If we are Kantians, when we say someone “means well” we focus our attention on intention. But in normal language having “good intentions” is more often an excuse for the failure to achieve the stated goal – she meant well. This excuse points to a domain of moral action that is often not referenced. All the applied areas we reviewed in the first chapter – science and engineering, volunteerism, courageous resistance, and rehabilitation require more than simple good intention. They require some skill in achieving the stated goal. In these areas, the needed skill is rarely that of moral judgment to determine what is right (Lapsley & Narvaez, 2005) but more often that of skill in recognizing the problem, framing it, planning for action to resolve it, and implementing those plans (Moulton, Regehr, Mylopoulos, & MacRae, 2007; Narvaez, 2005).

Ethical education guidelines for middle school (Narvaez, 2006) and college (Callahan, 1980) and guidelines for ethics instruction in computing (Huff & Martin, 1995), dentistry (Bebeau, 1994), psychology (De las Fuentes, Willmuth, & Yarrow, 2005), science (Mumford et al., 2008) and many other areas make explicit links between skill and knowledge and ethical competence1. The conspicuous attention paid to skills in ethics guidelines seems excessive compared to the proportion of work in moral psychology that investigates moral skill. This is in part because moral psychology has mostly concentrated on only those skills involved in moral judgment (Lapsley & Narvaez, 2005) to the neglect of skill in other aspects of moral action.2

In this chapter we will look at some particular skills that are associated with moral action, and two models of highly learned action routines that have implications for morality: expertise and habit. We will finish with a look at training programs that concentrate on moral skills and knowledge.

Can skills be moral?
But first, a comment about the moral in the phrase moral skill. What is peculiarly moral about these skills? Psychopaths can exhibit significant self-regulation skills in the service of their goals, but still show “feckless disregard” and meanness towards others (Skeem, Polaschek, Patrick, & Lilienfeld, 2011, p. 107). The classic work on German police participation in the final solution describes at least one subset of the most efficient “Jew-hunters” as having particular emotional regulation skills that allowed them to distance themselves from their work (Browning, 1992, p. 127) and thus to participate willingly in mass murder. It is at least suspicious ad-hocery to suggest that the small group of policemen who avoided participation in the hunt (by describing themselves as too emotionally “weak”) were actually the ones with the best emotional regulation skills because they knew they were doing evil.

Thus the relationship between morality and the skills and expertise I outline here is at the very least complex, if not contradictory and dialectical. Skills and knowledge can be separated from morality, and can indeed serve immoral ends. As we have seen in the various models of moral exemplars (e.g., Colby & Damon, 1992; Walker & Hennig, 2004) moral action and its influences are characterized by equifinality – the same moral action can come about in many different ways. And any particular influence (e.g. a skill, a personality characteristic, etc.) is multi-final – it can support or contribute to both moral and immoral action. But in most instances, absent moral luck (Nagel, 1979; Williams, 1981), moral actors must have some skills to successfully obtain their goals. Thus, if we want to

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1 There is some disagreement over whether knowledge is required to have a virtue (Winter, 2011). The discussions here about automatized skill and implicit knowledge may help resolve this controversy.

2 And this narrowing of the literature has, in turn, been supported by the structuralist foundations of Piagetian and Kohlbergian moral psychology (Narvaez, 2005). This old foundation assumes that the conceptual development that supports morality is separable and unique from other forms of learning, such as expertise. This assumption is no longer widely accepted (Hatano & Inagaki, 2000, p. 267). Rethinking morality as skill will require a rethinking of these Piagetian foundations of moral psychology.
understand, and ultimately to help develop, successful moral action, we will want to understand the role that skill plays in successful moral action, and how that skill might be learned.

**Particular Skills**

The skills associated with moral action can span the entire range from perception to judgment, planning, action implementation, and reflection. Most work in psychology has been done on those skills relevant to moral judgment, and we will look at this literature in the chapter on deciding. Here, we look at other general skills, including self-regulation, self-control, emotion regulation, and moral attentiveness. These are skills that are assumed to underlie all moral action. Finally, we look at the special skills and knowledge that belong to moral action in specific domains.

**Self Regulation**

Self regulation is “the process by which people adopt and manage various goals and standards for their thoughts, feelings, and behavior, and then ensure that these goals and standards are met” (Fujita, 2011, p. 353). It really is an over-arching category of skills, each of which contributes to success in goal attainment. Self-regulation involves several skills, with sub-skills within them. According to Fujita (Fujita, 2011; Fujita & Carnevale, 2012) self-regulation requires a) deciding which goals to pursue, b) planning – determining how best to attain a valued end, c) protecting goals from competing concerns, d) recovery – how to proceed when initial efforts fail, and e) deciding whether to continue or abandon goals after failure (see also, Gollwitzer, 1990). Some of these items, like deciding on goals, are more prospective and future oriented. Self-control is more present-oriented aspect of self-regulation and is involved in resolving the conflict between distant goals and immediate desire. It is one situation in which the individual must protect a goal from competing concerns. A comprehensive review of self-regulation could fill a book (and has, Boekaerts, Pintrich, & Zeidner, 2005). Suffice it to say that ability in each of these aspects is predictive (or perhaps, constitutive) of mature functioning in life (Frimer & Walker, 2008; Mischel, Shoda, & Rodriguez, 1989) and can be increased through practice (Baumeister, Gailliot, & Tice, 2009; Förster & Jostmann, 2012; Lord, Dievendorff, Schmidt, & Hall, 2009).

The ability to self-regulate has been associated with the more philosophical notion of the will (Koole, Greenberg, & Pyszczynski, 2006; Kuhl & Koole, 2004), since successful self-regulation supports the achievement of valued goals by organizing attentional, motivational, emotional, and other internal resources. And this approach allows one to decompose such philosophically interesting ideas as “weakness of the will” into many different kinds of weakness (see, e.g., the model by Kuhl & Koole, 2004). The conversation about weakness of will has often focused on that aspect of willing that requires attentional effort (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Baumeister et al., 2009) and acts somewhat like a muscle, in that it uses energy and does not function well when depleted. But the complexity of self-regulation allows us to see self-control as only one way the will might be strong or weak. Other ways include any items from the list a–e above (see Molden et al., 2012, for a similar view).

**Emotion Regulation**

The ability to regulate emotion is crucial to the entire span of moral action, from being able to perceive moral issues in one’s environment, to reacting appropriately to them, to planning for future action. There is a knowledge aspect to emotion regulation that involves knowing effective strategies to modify and nurture emotions in particular situations. (Cote et al., 2011). The skill aspect involves being able to carry out these strategies in service of particular goals (Salovey & Mayer, 1989-1990). Nursing one’s anger can help in a confrontation (Tamir, Mitchell, & Gross, 2008), compassion can facilitate helping (Crocker & Canavello, 2012) and the pride can stand in the way of cooperation (Oveis, Horberg, & Keltner, 2010). One can endlessly enumerate other examples of the role of

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3 There are others, for instance when there are two competing long-term goals (Fujita, 2011). Resolving this sort of goal competition requires some judgment and decision but not so much self-control.

4 This complexity is complimentary to Holton’s (1999) approach that identifies weakness of the will not with a logical conundrum, but with irresolution and lack of persistence.

5 But we should remember that like other skills, emotion regulation can serve both good and bad ends. In the article that first introduced the idea of emotional intelligence, Salovey & Mayer (1989-1990, p. 198) note that “those whose skills are channeled antisocially may create manipulative scenes or lead others sociopathically to nefarious ends.” Recent work (Cote, Decelles, McCarthy, Van Kleef, & Hideg, 2011) shows how emotion regulation knowledge and skills can strengthen both other-oriented (moral identity) and self-oriented (Machiavellianism) goal achievement.
emotion, and emotion regulation, in effective moral action. But what is needed is some systematic way to think about that role.

Koole and colleagues (Koole et al., 2006; Koole & Kuhl, 2003; Kuhl & Koole, 2004) provide us with a theoretical system in which emotion regulation is central in achieving effective action control. Their theoretical approach is *Personality Systems Interactions*, and one of the central interactions is that between emotions and goal planning and achievement (Kuhl & Koole, 2004). In this approach, even self-esteem is the result of “preferred styles of affect regulation” (Koole & Kuhl, 2003, p. 44) that allow individuals to maintain positive feelings about the self even in situations that threaten those feelings. These styles and skills consist of a) sensitivity that allows early attention to be given to important information, b) a skill of restoring positive affect in difficult situations, c) the skill of self-calming or down-regulation of negative affect, d) and an orientation of attention to information that serves the first three processes. These skills operate mostly on an implicit level (Koole & Pelham, 2003) but they can be learned through practice and such practice is offered in parenting (ref), schooling (Berkowitz, 2000; Lapsley & Narvaez, 2006), and religion (Bremner, Koole, & Bushman, 2011) among other social practices.

There are other, less helpful skills in emotion regulation, including denial, intuitive avoidance, sensitization-dissociation, and intentional suppression (Koole & Kuhl, 2003). These less successful approaches may at times be the only available recourse when energy is low or the situation is overwhelming (ref to trauma). And even the mature functioning of emotion regulation does not promise blessedness in the face of significant existential concerns (Koole et al., 2006). But it can often prove more effective in achieving moral goals (Koole, McCullough, Kuhl, & Roelofsma, 2010).

**Moral Attentiveness**

There is a skill involved in being regularly aware of and ready to respond to morally relevant situations. Narvaez (2010) calls this cognitive chronicity, taking the concept from the social cognition literature about which mental models are most complex, detailed, and accessible (Higgins, King, & Mavin, 1982). This is the skill aspect of what, in the self chapter, we called moral identity. Two of the defining characteristics of having a moral identity are that one has a detailed and complex knowledge of the domain and that this knowledge affects the sensitivity of the individual to relevant issues in their environment. Acquiring such skills are clearly part of the tasks of growing up (Eisenberg, 2005) and some adults clearly excel in this (e.g., Colby & Damon, 1992). In work on leadership in the military, Hanna & Avolio (2010) have called this cluster of skills and knowledge moral potency, and shown its relationship to ethical values and behavior among soldiers. In work on organizational teamwork, Reynolds (2008) has used a similar concept, moral attentiveness, and shown its relation to recall of moral action, moral awareness, and moral behavior in teamwork as rated by teammates. The research on this skill is still somewhat scattered, but the cognitive chronicity approach of Narvaez (Narvaez, 2010) likely provides a useful way of identifying its components and developmental trajectory.

**Domain Specific Skills**

The skills covered so far seem relevant in a wide variety of situations and domains. But there is ample evidence that these skills alone are not sufficient when one is participating in a particular domain of life. One needs skills relevant to each domain. It is possible that the general moral skills may be prerequisites for, or lead individuals to more quickly acquire, the domain relevant skills.

Obviously, domain relevant skills will be particular to each domain, and since the domains are legion in number, so too would be the skills. Generalizing across domains, one might find similarities in these skills, but they would need to occur at a higher level of abstraction, and the skill may not be able to be taught at this level of abstraction. This is interesting speculation, but there is very little work even on domain relevant skills to support it. There are some particular examples of what we might mean by domain relevant skills. For instance, when the philosopher Michael Pritchard interviewed moral exemplars in the engineering professions, he found that the virtues they listed contained

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6 But remember that domain can be quite limited. Morality (and moral identity) may be limited to only one aspect of an individual’s life, and this can result in inconsistencies between domains, such as work, charity, and family (Colby & Damon, 1992).

7 The third aspect of moral identity is that it is closely linked to the individual’s view of the self (Lapsley, 2008).

8 This is similar to Aristotle’s thought when he says that one must have had the right kind of upbringing before one can learn the virtues (Aristotle, 1941). But I do not know of any research that would document this.
some standard suspects (e.g. honesty, courage) but also quite specific skills such as “a habit of documenting work” (Pritchard, 1998, 2001). In fact, Huff & Barnard (2009) found that the moral exemplars in computing they interviewed made little distinction among moral, social, and technical skills, often claiming that all were interrelated. Also in the field of computing, Keefer and Ashley (2001) asked both experts (philosophers specializing in computer ethics) and novices (undergraduates) to talk aloud while solving ethical cases. They then analyzed the resulting transcripts from these deliberations. They found the surprising outcome that novices tended to use more high-level philosophical abstractions (such as utility) and that professionals tended to use more intermediate-level knowledge (such as informed consent). One presumes that expertise consists in part of having these intermediate knowledge structures available and ready to use. Work in addiction recovery (Bernheim, 2004) shows that specific skills of understanding and managing susceptibility to relapse are crucial in recovery. Skills such as social networking and negotiating are what Thalhammer et al. (2007) refer to as internal resources in their model of what influences the action of courageous resisters such as those who sheltered victims of the Holocaust. Snyder and colleagues model of volunteering suggests that one of the reasons that people volunteer is to learn skills they might not find elsewhere (Snyder & Clary, 2000; Snyder & Omoto, 2008).

EXPERT PERFORMANCE
We can think of excellence in moral acting as the achievement of expertise in a domain (Dreyfus & Dreyfus, 2004; Narvaez, 2005, 2010). In some cases these are general skills that support moral action across domains, but there are also specialized skills and knowledge applicable to particular domains. The model of moral action as expertise conforms well to the recently resurgent idea of moral action consisting of the exercise of the virtues (Annas, 2006; Anscombe, 1958; MacIntyre, 1981). Like virtue, expertise is a characteristic of the individual and can be held at various levels of excellence. Like virtue, expertise consists of habitual and even automatic ways of performing certain tasks, and these ways can be acquired through practice. Is it likely that descriptions of an individual as “having” a virtue (e.g. honesty) are actually descriptions of a characteristic way of acting well (acting in an expert manner in regard to being honest) rather than descriptions of a characteristic the individual “has” that causes virtuous action.9

The expertise model of morality thus sees consistent moral action as the use of skills to strive for excellence with regard to particular (moral) goals, in a particular domain. The caveat with regard to the nature of goals is important here. It has been shown, for instance, that mentoring in service of narrowly-success-oriented goals can lead young scientists to actually care less about moral issues, and be less moral in their practice of science (Anderson et al., 2007). As discussed in the chapter on the self, one can have many other goals than moral ones, including enjoyment, sociality, and achievement (McGregor & Little, 1998). All people, even psychopaths (Skeem et al., 2011), have some of the skills associated with achieving moral goals, and need them in order to navigate our shared social life. But moral exemplars, individuals recognized for excellence in striving after moral goals, have achieved the most practice in these skills.

Narvaez (2010) makes the analogy with music. Everyone appreciates music to some extent, and everyone participates in music to some extent, but some few of us have extensively practiced both the appreciation and performance of music. These are experts. The literature on expertise presents some consensus on the differences between novices and experts who:

1) Have more and better organized domain knowledge (declarative, procedural and conditional)
2) Perceive and react to the world differently, noticing detail, risk, and opportunity
3) When things are normal, they act in the domain in an automatic and effortless way

Common to all the models is the idea that expertise can be learned over time, with practice and appropriate feedback (Dane, 2010). This learning arc was noticed long ago by Zeami (Motokio, 1984) who catalogued the developmental progression of expertise in his medieval treatises on Japanese Noh Theater. According to Zeami, the rules that the beginner obeys (Shu) are “beautiful fictions,” and with practice the novice can advance to the stage where the practitioner can detach (Ha) from the rules and break them intentionally in the right circumstances. True experts transcend (Ri) the rules, and even though they may seem to violate them, their action can propose the modification of the rules (Murata, 2010, 2011). This Shu-Ha-Ri progression has been taken up in the martial arts and in computer science (Boehm & Turner, 2003) to describe levels of mastery.

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9 See the chapter on personality for the argument supporting this claim.
But can we really speak of expertise in the moral domain? Narvaez (1998) compared moral experts and non-experts and showed the experts behaved like experts in other well-studied domains (e.g. chess). Given complex moral narratives to read, they gave more explanation and total expressions, showed deeper understanding and engagement in texts, disagreed with the narrative of text more often, and had more and better organized logic. Following the chronicity metaphor of expertise, Narvaez, Lapsley, Hagele, and Lasky (2006) showed that moral “chronics” respond faster and make more dispositional inferences when making judgments about morally relevant stories. Similarly, people with higher moral reasoning scores showed a better recall of moral arguments in texts, and particularly better recall of more complex moral arguments (Narvaez & Gleason, 1995). This research program makes the case that at least some aspects of moral skill and knowledge follow the patterns one would expect from the expertise literature. And the use of expertise models in applied domains with clear moral relevance (Dane, 2010; Moulton et al., 2007) shows that others find the model a useful way to think about morally relevant action.

The table shows the model of “mature moral functioning” Narvaez (2010) has developed from her research program. The complete model of moral expertise depicts moral experts as different in perception, cognition, action, meta-cognition and meta-action. This kind of comprehensive expertise is based in extensive practice within a domain of morality (e.g. within a profession or calling) that produces highly practiced and easily available, extensive and detailed skill sets and cognitive models of the moral aspects of that domain. This facilitates the expert’s being a more sensitive perceiver of ethically relevant occurrences, a more creative proposer of action plans, a better implementer of those plans, and a more thoughtful planner and networker in shaping the moral ecology.

This expansive, and even ideal, model of moral expertise is still limited by the recognition that moral expertise is typically developed within a domain. Even these highly skilled moral experts are limited in their expertise to those aspects of their world to which they have dedicated themselves. The work on moral exemplars seems to support this segmentation of moral expertise. People recognized for high moral achievement in social service or in a profession are often not such high achievers in other domains of their lives (e.g. their families are often negatively affected). It is unclear whether this neglect comes from inevitable competition for limited resources, or from a lack of ethical commitment to domains other than the chosen one, or from a lack of some skill in the less well-practiced domain (Lapsley & Narvaez, 2006, p. 253).

One difficulty of the model of expertise provided here is that at times it seems to locate the action of expertise almost entirely

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**According to Narvaez (2010, p. 172), mature moral functioning involves:**

- Basic socialization generally expected of adults (e.g. emotion regulation)
- Basic habits and disposition conducive to self-development
- Moral imagination
- Ethical expertise in a particular domain (e.g. a profession, or community service). Including
  - Greater skills in ethical sensitivity
  - Ethical judgment
  - Ethical focus
  - Flexible adaptation within networks of relationships
- **Individual** capacities for:
  - Habituded empathic concern (targeted feelings of compassion combined with a sense of responsibility and propensity to act)
  - moral metacognition (manage and complete tasks, monitor progress, adapt plans and strategy), including moral locus of control, moral self-monitoring, and moral self-reflection
- **Collective** capacities for
  - Moral dialogue, commitment to and skill at initiating and supporting community dialogue about moral action
  - Moral institutions, the construction, maintenance and reform of social institutions

This expertise looks different in every individual, and any particular moral expert cannot serve as the model for how all should operate. Note also that Narvaez (2010 ref) conceives of moral expertise as occurring within domains, rather than being a more general, cross-domain expertise.

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10 The term is taken from the social cognition literature to refer to individuals whose mental models for a particular domain are most complex, detailed, and chronically accessible (Higgins et al., 1982).
in automatized responses to the environment.\textsuperscript{11} This may be because the model is based on Dreyfus & Dreyfus (2004) work in expertise. Their model sees expertise consisting primarily of highly practiced perception-judgment-action routines that develop over time. In the Dreyfus & Dreyfus (2004) model, these routines are seen as flexible and working under most circumstances. But what happens when they do not work?\textsuperscript{12} We will look in detail at this issue in the section on habit. For now we should note that the ability to be aware of the situation and to recognize when ordinary, practiced, expert routines are not working is itself a part of expertise, as is the ability to be reflective about the breakdown and to do appropriate puzzle-solving when normal solutions do not work (Moulton et al., 2007).

The Development of Expertise

Dreyfus and Dreyfus (2004) propose a 5-stage model of skill acquisition. They begin their analysis with two morally neutral skills, driving and chess,\textsuperscript{13} and go on to consider the pattern of acquisition in the domain of morality. The five steps along the continuum of expertise they describe are:

1. **Novice:** Action is guided by context free situational features and rules for determining actions based on those features of the situation. This simplistic approach fails in complex contexts.
2. **Advanced Beginner:** Guidance for action begins to be based in recognition of aspects of the context. At this level, maxims (e.g. make things as simple as possible) replace context free rules.
3. **Competence:** The multiplicity of features and aspects one has to consider, even given maxims to help sort them, begins to overwhelm judgment because of combinatorial explosion. Hierarchical structures based on goals of the individual for that situation are imposed to limit the complexity. Goal choice is emotionally fraught because there is a lack of clear rules at this meta-level.
4. **Proficiency:** Action is guided by the adoption of a perspective that guides choices among higher-level goals. Flow in the task become continuous, but is still punctuated by conscious planning and effort.
5. **Expertise:** “Normally an expert does not deliberate. He or she neither reasons nor acts deliberately. He or she simply spontaneously does what has normally worked and … it normally works” (Dreyfus & Dreyfus, 2004, p. 253, ellipses in original).

The stages are not discontinuous, and in appropriate environments, this development of expertise proceeds in tandem with appropriate practice. One can, for instance, see advances in expertise in the processing of moral discourse develop across childhood (Eisenberg, 2005; Narvaez & Gleason, 1995). Kind environments (Hogarth, 2001) provide support for the development of such expertise. Weather forecasting and sports are such environments, providing unambiguous, rapid feedback of success or error, and giving rise to internally consistent and externally valid mental models and intuition. When coupled with coaching in both practice and theory, these environments can support rapid expertise development. Wicked environments, on the other hand, do not provide the feedback needed, because, e.g. definitions of success are malleable and feedback is ambiguous, difficult to recognize, or easy to reinterpret.\textsuperscript{14} This makes it difficult to get (and easy to avoid) the feedback that can inform expert performance.

Given a kind environment, deliberate practice is necessary but not sufficient to achieve expert level performance. Campitelli and Gobet (2011) suggest it requires approximately 3,000 hours of deliberate practice, but this number varies tremendously (from, e.g. hundreds to more than 20,000 hours to achieve master levels in chess). This wide variability may be explained by individual differences in ability, sensitive periods for development (Campitelli & Gobet, 2011) and coaching (Hogarth, 2001)(Hogarth ref). These numbers are likely to vary widely also by domain, and expertise may well not be a linear function of hours of deliberate practice (Campitelli & Gobet, 2011)(Campi ref). One skill may be easy to learn at rudimentary levels (e.g. English), but difficult to excel at, while another poses

\begin{itemize}
\item[12] Dreyfus and Dreyfus (2004, p. 256) do note that “in familiar but problematic situations, the expert deliberates about the appropriateness of his or her intuitions.” They do not give much explanation about how this deliberation works, but they admit that “expert deliberation is not inferior to intuition” (p. 255). Still, to say that it is “not inferior” is small praise.
\item[13] But virtue ethics suggests that even these skills in a domain of practice are not morally neutral.
\item[14] This leads to the interesting and ironic hypothesis that the domain of morality may be wicked in this technical sense.
\end{itemize}
difficulties from the very beginning (Chinese). Where does morality stand in this? We do not know. The idea of morality as an expertise is still too young for these questions to have been investigated.

**Automaticity in Expertise**

There appears to be an odd irony in the Dreyfus and Dreyfus (2004) presentation of this progression in expertise. At the highest levels, automaticity rules performance, and the expert seems to do best when thinking least. This is a provocative idea, but there is some evidence to support it. Hassin and Bargh (2009) provide evidence that automatic process do not need to be rigid and inflexible. Automatic-level goals can facilitate flexible action to achieve them, and automatic-level routines can even help resolve self-regulation dilemmas. One advantage of the automatic level of processing and action guidance is that it uses less energy, and thus frees the actor to concentrate on other things (Schmeichel, Vohs, & Baumeister, 2003). This work is relatively new and controversial (Mamede et al., 2010) but it provides a glimpse at the kind of flexible, adaptive, automaticity than could underlie expert moral negotiation of difficult tasks. In the section on habit we will look at another model of expertise that makes knowing when to drop out of automatic processing into deliberative processing a central aspect of expertise.

**What Knowledge and Skill?**

What kind of skills and knowledge is it one learns as one becomes more morally expert? The traditional Piagetian approach (Hatano & Inagaki, 2000; Narvaez, 2005) saw advancement driven by cognitive capability in foundational logical-mathematical operations. Advance in these operations supposedly produced advances across all domains of thought and action. This hierarchical structure is no longer viewed as valid in most circles (Hatano & Inagaki, 2000; Lapsley & Narvaez, 2006).\(^{15}\) Most work on conceptual development now sees it as similar to expertise in a domain, within the multiple domains of knowledge and action in our lives.\(^{16}\) So the first, broad answer to the question is that it will be knowledge and skill relevant to the domain of morality, and perhaps with regard to morality within a specific domain of action, such as a profession. This does not seem like a remarkable statement unless one reflects on the short history of developmental theory outlined here.

Beyond this quite vague description, can we specify what kind of knowledge is involved in expertise? Narvaez (2005) uses schema theory taken from Marshall (1995)(1995 & 1999 refs) to construct a model of moral skills and knowledge for the purpose of teaching them. She lists four types of knowledge:

1) **Identification:** knowledge of essential elements of the domain so that one can identify them
2) **Elaboration:** knowledge that enables creation of a situational mental model
3) **Planning:** knowledge of how to combine what is known to form expectations and make plans
4) **Execution:** knowledge to guide the execution of plans and their revision when things go wrong

Can one obtain reasonably valid descriptions of the relevant skills and knowledge in a domain? Much research in organizational psychology shows we can get reasonably valid descriptions of the skills involved in particular jobs (Fleishman & Mumford, 1991; Fleishman, Mumford, Zaccaro, Levin, & et al., 1991). In the domain of morality, attempts have been made to catalogue and validate skills involved in moral judgment (Wainryb & Brehl, 2006) and moral behavior among school children (Narvaez, 2006). Lists of moral skills and knowledge have been developed for various professions, including computing professionals (Huff & Martin, 1995), dentistry (Bebeau, 1994), and medicine (Pinijphon, 2009).

How do these skills and knowledge differ between novices and experts? Keefer and Ashley (2001) asked experts in engineering ethics and undergraduate students in engineering to write responses to complex cases in engineering ethics. They found that expert ethical thinkers in this domain were more likely to:

- appeal to middle-level principles that identify role-specific obligations (e.g. due diligence in safety inspections)
- make greater use of professional knowledge in order to recognize moral issues and relevant facts (e.g. knowledge about interactions among safety aspects of particular systems)
- employ more contextually sensitive reasoning strategies when crafting resolutions including

\(^{15}\) This change is one reason behind the move to the “neo-Kohlberg” theory that depends on concepts like schemas and expertise (Narvaez, 2005).

\(^{16}\) We should note that there is some dispute among philosophers about whether knowledge is a necessary component of a virtue (Winter, 2011).
One surprising aspect of the findings is that novices in the domain tended to use the more abstract, “philosophical” reasoning strategies, while domain experts (many of whom were philosophers) used middle level concepts and role specific obligation to identify problems and think about the cases.

The discussion so far makes it seem as though the skills and knowledge outlined here are entirely the work of the isolated individual. But at least some of the skill one has in identifying moral issues comes from knowing how to interact with others to investigate and to understand their perspectives. Similar social skills can be found in each of the categories listed above. The chapter on moral ecology makes this point in detail.

**Domain Specificity**

We have already noted that expertise is domain specific. This is, in part, what one means when one speaks of expertise – it is always expertise-in-something. The virtues that moral exemplars in engineering listed for other engineers include more general items such as integrity and courage, but also domain specific items like “habit of documenting work” and “competence” (Pritchard, 1998, 2001). One of the computing moral exemplars that I interviewed commented that technical and creative incompetence can produce additional ethical temptation to cut corners and do sub-par, unethical work (Huff & Barnard, 2009).

Other authors have noted that moral exemplars in social service often find themselves regretting the ways they have treated their families. Colby & Damon (1992) speculate that this is not a simple case of not having concern for families, but more likely a result of conflict among moral goals given limited resources. They base this hypothesis on the ways their exemplars spoke about valuing their families’ welfare, feel compelled to spend time on their other moral commitments, and feeling guilt and distress over the neglect this produced. Given the inevitable limited resources individuals have, it seems reasonable there might actually be competition among domains (Lapsley & Narvaez, 2006). So, at least in this case, it may not be a lack of skill in the domain of the family that produces the neglect. But if resource limitations lead to less practice in one domain (e.g. family) it may likely lead to less knowledge about that domain and less skill in practicing in that domain. Thus, those led to neglect a domain may find themselves less able to practice in it when they do finally find the time, and may find their well-honed skills in other domains less successful than they might hope.

**Habits**

When one speaks of habits, the term is often modified by an implied “bad.” But in his Nichomachean Ethics, Aristotle suggests that the virtuous person was prepared (or “cultivated”) for virtue by learning good habits (Aristotle, 1941, NE 10.9 1179b4-31). Their importance for moral behavior can be seen from how much of our behavior they control. In experience sampling studies, habitual actions comprise 45% of everyday activity (Neal, Wood, & Quinn, 2006).

In the psychological literature, habits are “automated response dispositions that are cued by aspects of the performance context” (Neal et al., 2006, p. 198) and in terms of value may be good, bad or indifferent. Habits can be simple aspects of our daily routine (e.g. how we squeeze the toothpaste tube), or they can be relatively complex parts of an expert routine (e.g. an engineer checking for safety in the interactions of components). But to count as habitual, they must operate primarily automatically and be controlled by cues in the individual’s context. They are learned by repetition in a similar context so that procedural memory – that aspect of memory that stores and controls action sequences – is “cognitively tuned” to both the context and the response. This suggests their relationship to expertise: those parts of expertise that can be described as “‘automated response dispositions” can be thought of as habits. But as we will see, expertise is more than a collection of habits.

But even habits are not simple chains of Stimulus-Response links without representations of the environment or goals. There are roles for consciousness, goals, and motivational states in habits (Neal et al., 2006). At the simple habit level, Rothman, Sheeran, and Wood (2009) propose a model of habit change that includes both automatic and controlled processes that regulate eating behavior at different times in the behavior change process.
Some habits are controlled almost entirely by performance context cues. Others are not always performed in a particular context but their performance can be triggered, without conscious intervention, by goals in the appropriate context. The more a habit is under the control of environmental cues, and the more highly practiced it is, the more difficult it is to intentionally alter. (Neal, Wood, Labrecque, & Lally, 2012). When a particular action only occurs rarely, or is performed in complex interaction with goals and contexts, it may require a great deal of practice to become habitual (Neal et al., 2012). This helps to make sense of the long practice times required to cultivate expertise, which will consist of a multitude of habits that are integrated with both goals and contexts.

One advantage of the mostly automatic nature of habits is that they do not require much in the way of cognitive resources (Neal et al., 2006). In complex or stressful contexts, this leaves the actor with the cognitive resources to concentrate on other aspects of performance. Of course, if the habit is not appropriately sensitive to context changes, it may be performed at inappropriate times. Expertise may consist, in part, of tuning habits so that they are expressed only in the appropriate contexts. The lack of such tuning is called “cognitive entrenchment” in the organizational literature (Dane, 2010).

### How are habits regulated?

Thus the appropriate integration of habits into expertise requires that they be sensitive to goals and contexts, even if they are so well learned that they are automatic in activation and execution. Neal, Wood, and Quin (2006, p. 200) call this process of integration self regulation, and note that it consists of “monitoring and adjusting responses in the service of the self.”

But if habits are automatic, how can this kind of self-regulation interact with them? One suggestion is that the perception of some metacognitive difficulty or disfluency in the process is a cue for conscious intervention (Alter, Oppenheimer, Epley, & Eyre, 2007; Moulton et al., 2007; Neal et al., 2006). For instance when an individual has multiple goals, these can conflict with each other and activate competing responses. When complex contexts activate competing habits this too may cause disfluency. Or when a goal is blocked (perhaps by some conflict with the context, such as a pattern of data that does not fit with a medical diagnosis) disfluency may be experienced.

Thus, experts need to use markers of disfluency (Moulton et al., 2007) to break out of automatic routines and respond consciously to these difficulties. Moulton et al. (2007) have a model of “slowing down when you should” and their model of expertise showcases the ability to switch back and forth from automatic to controlled processes. Their work is based in research on medical expertise, and they draw from a model of expertise by Schön (1984) taken from engineering, architecture, management, psychotherapy, and town planning. In contrast to the Dreyfus and Dreyfus (2004) model mentioned above of “doing what normally works,” they ask how expertise copes in the extraordinary circumstance. They mark the ability to switch back and forth from automatic to controlled process as the critical skill needed for expertise in extraordinary circumstances. This ability to self-regulate is facilitated by awareness of the situation that allows detection of disfluency, connection of that to situational parameters, and the initiation of corrective action (Alter et al., 2007). The expert then has a well-practiced controlled process to search for alternative solutions to the issue, both naming the difficulty and framing it, placing it in the larger picture of the situation and goals (Schön, 1984).

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17 In the habit literature, habits that are always performed in a particular context are termed “strong” habits while those that are deployed depending on the goal and the context are called “moderate strength” habits. This language is one of the last vestiges of the behaviorist interest in habits, and can be misleading. It considers habits as isolated units that are stronger or weaker, rather than as possible integrated units in a larger thing. One might easily call habits are that are activated only in the appropriate context “flexible habits,” or even “strong habits,” because they are tightly integrated into expertise.

18 This detachment of habits from context has the ironic effect of making habits feel unconnected to the sense of self. Thus people think their non-habitual actions are more informative about who they are (Neal et al., 2006, p. 201). This is perhaps because the self is autobiographical and more dependent on declarative, narrative memory. This disconnection of habit from the self could be one reason for the “humility” shown in exemplars. It might also help us understand why we think our judgment in difficult (non-automatic) situations is the marker of our moral character rather than the developed automatized skills of moral expertise.
The expert has the cognitive capacity to be aware of disfluency and situational context in part because the automatized habits require little capacity to run. Habits are, thus, a two edged sword: they can both free the expert to respond flexibly to the extraordinary (Moulton et al., 2007) and trap the expert into routines that are not appropriate to the context (Dane, 2010).

Conclusions
How should we characterize morality if we think of it as an expertise? The expertise approach is both a description of how one is skilled in a domain and also a description of an ideal state toward which one is constantly striving (Aristotle, 1941; Moulton et al., 2007). This suggests that there may well be rules one can derive from experts’ behavior. But one would expect regular exceptions to those rules: places where the normal rules don’t normally work. In wicked problems, where there is disagreement about the framing of the issue, no clear metric for success, and many unique factors combine (Hogarth, 2001), one would expect both rule-based systems and experts to struggle and fail. Rule based systems, with no clear procedures for recognizing disfluency, may fail earlier and more spectacularly than experts.

From the perspective of expertise, conscious moral judgment of the sort that is measured in moral reasoning tests (Colby & Kohlberg, 1987) is likely an exceptional occurrence in moral behavior. Moral acting may more often consist of habitually doing the moral thing rather than constantly deliberating about moral dilemmas. This habitual acting is not simple Stimulus-Response habit, but a complex of action that is integrated into expertise on acting in a domain. Moral judgment and moral decision making, then, may be important skills when operating in indeterminate zones of practice, where things are unclear or ill-formed (Moulton et al., 2007).

We can identify and teach both those skills that are automatized in moral expertise and those skills that come into play when disfluency in automatic action requires us to exercise moral judgment.

This characterization of morality from the perspective of expertise does have some face validity and might serve as another argument for the usefulness of an expertise approach.

Remaining questions
The idea of moral skill in its structure it is quite congenial to recently popular virtue (Annas, 2006) or character based (Berkowitz, 2000; Blasi, 2005, 2009; Lapsley & Narvaez, 2006) models of morality. Nevertheless, work on moral action as skill and expertise is still in the beginning stages. There are numerous applied attempts to catalogue the skills involved, but these all suffer from the “laundry list” complaints that Kohlberg made of earlier virtue models (see Lapsley & Narvaez, 2006 for an overview of the problems with the "bag of virtues" approach). Given the domain based nature of expertise, one should not expect a complete skill set that is applicable across all domains. Instead, one might expect some core skills and a large proliferation of domain-specific skills in the various professions, vocations, and contexts in which one can take moral action. So work in this area might best start with careful attention to domain and cultural differences and then look for shared or overlapping items.

We are only beginning to understand the integration of automatic and controlled moral action. What controls the interplay between these two ways of taking moral action? What environmental and personal characteristics make cognitive entrenchment more or less likely? What skills are required to recognize disfluency and take controlled action based on it?

We also know very little about how skill sets and knowledge integrate with other aspects of the model. Skill sets in moral action in a particular domain might be isolated from skills associated with personal growth or in integrating domains to achieve integrity in moral action across those domains. One might value certain ends without having the skill to attain them, and vice versa. How do people recognize these kinds of disfluency and take action to remedy them?

Another sort of disfluency can come from recognition that one’s performance in different domains is differentially successful. One barrier to the sort of integrity that is achieved from cross-domain consistency is competition between domains. Competition can arise from simple conflicts for limited resources or from more complex conflicts when the goals associated with different cultural or personal domains are in conflict (Schwartz, 2010). When we speak of moral integrity (Mumford, Connelly, Helton, Strange, & Osburn, 2001; Paine, 1994; Pritchard, 2006), we
often refer to consistency in value commitments or consistency of behavior with a particular value commitment (Frimer & Walker, 2008). But if we think of moral action in the context of domain dependent expertise, it becomes clear that one might have commitment to a domain but not the requisite level of expertise in it. And one can thus speak of lack of skill as a threat to integrity. Integrity can be threatened by the inevitable competition for limited resources, or from a lack of ethical commitment to domains other than the chosen one, or from a lack of some skill in a less well-practiced domain.

Thinking of moral action as a set of skills and knowledge can also help with the puzzle that philosophers have called “weakness of the will” (Nagel, 1979). When one knows something is the right thing to do, how is it that many people then fail to do that thing? The list of skills associated with moral action present multiple points of failure including ones that may differ from one domain to another. Self-regulation involves the organization of attentional, motivational, emotional, and other internal resources in the service of goals. There are multiple points of failure associated with each of these. One can fail in deciding which of many alternate goals to pursue, in planning how best to attain a valued end, in protecting goals from competing concerns, in recovery when initial efforts fail, and in deciding whether to continue or abandon goals after failure (Gollwitzer, 1990; Gollwitzer, Sheeran, Trotschel, & Webb, 2011). Or one can foresee these sorts of difficulties in taking moral action and give up early having forecast failure.

One way cultural disagreements can be viewed is as differences in expertise in different domains. The knowledge and skill needed for expert level moral acting in an individualistic culture may be quite different from that needed for a collectivist culture (not to mention more specific aspects – e.g. religious commitments - of a culture). Dreyfus and Dreyfus (2004) propose that in cases of expert disagreement, there is no requirement that experts always agree (otherwise it would be a simple rule-oriented domain, and require no expertise). If we think about cultural disagreement as disagreement among experts with different kinds of expertise, we may find some guidance regarding the nature, structure, and extent of moral disagreement one can find between cultures.

Notes for revision:

Get citations from Baumeister conscious thought paper for automaticity in expertise.
Mele in reader talks about decisions resulting from uncertainty – this is related to disfluency
Make revisions from geocoded data document
Add ideas from the Phillips 2004 Blackwell Handbook chapter on expertise
How is emotion incorporated in expertise?
Cite “Rationalism in Politics” by Michael Oakeshott
In footnote 18, (p. 9) cite Seto & Hicks (2016) on restriction of free will reducing self.
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