Virtues as Skills in Virtue Epistemology – Matt Stichter
Pre-print Draft

Introduction

One approach to understanding virtue has been to compare and contrast virtues with practical skills, since both involve learning how to act well. The significance of the 'virtue as skill' thesis can be seen in Aristotle's suggestion that "we should use as evidence what is apparent for the sake of what is obscure."[1] Making analogies to practical skills with which we all have some familiarity, as Aristotle often did, can shed light on the more obscure nature of virtue. According to Julia Annas, "The intuitive appeal of the ancient skill analogy for virtue rests on the idea that one practical activity – acting well – is like another prominent practical activity, working well."[2] Paul Bloomfield points out that another benefit of the skill model is that it can yield "a viable epistemology in which moral knowledge is shown to be a species of a general kind of knowledge that is not philosophically suspect".[3]

Although many questions have been raised about the skill model of virtue, usually the focus is on the usefulness of the model for understanding moral virtues. The topic of this paper, however, will inquire as to whether the skill model of virtue is suitable for developing an account of intellectual virtues. Evidence that a discussion of the 'virtue as skill' thesis will be illuminating for virtue epistemology can be found in two prominent discussions of intellectual virtues and skills. Linda Zagzebski has argued that intellectual virtues can be modeled on ethical virtues, and that a key component of virtue being understood as a 'success' term is that virtues are *associated with* skills. However, in making her case she explicitly rejects the stronger claim that virtues can be *understood as* skills. Julia Annas, on the other hand, defends the idea that virtues are skills, and she uses this conception of virtue to argue that Zagzebski's project of

[1] Aristotle, Nicomachean Ethics, H. Apostle (trans.). Grinnell: The Periapatetic Press, 1984, 1104a14-15.
[2] Annas, J., Virtue as a Skill, International Journal of Philosophical Studies 3(2) (1995), p.229.
[3] Bloomfield, P., Virtue Epistemology and the Epistemology of Virtue, Philosophy and Phenomenological Research 60(1) (2000), p. 23.

modeling intellectual virtues on ethical virtues fails. Annas believes that there are key differences between the two types of virtues, and thus one cannot be modeled on the other.

This paper argues that a skill model of virtue can support modeling intellectual virtues on ethical virtues, contrary to Annas, and can do so despite Zagzebski's rejection of the idea that virtues are skills. This result will be arrived at by exploring a variety of misconceptions that exist about skills and expertise, and which have led to errors in the discussions of both Zagzebski and Annas. While part of the appeal of the skill model of virtue is due to our familiarity with acquiring practical skills, the downside of this is that we tend to rely too much on just our own experiences of acquiring skills. Although most of us have acquired several practical skills, few of us have achieved the level of expertise with regard to those skills, and it is the comparison of the virtuous person to experts in a skill that matters most for the 'virtue as skill' thesis. There is ample psychological evidence that novices use strategies that are quite different from those used by experts, and as a result, our own experiences with skills can be misleading when it comes to thinking about how experts perform.

It should also be pointed out that not all of our experiences with skill acquisition will be the same. This leads to philosophers implicitly working with different conceptions of skills. Furthermore, if there are different conceptions of skills, then there can also be different conceptions of the 'virtue as skill' thesis. Thus, an apparent agreement between philosophers that virtues are like skills can mask serious underlying disagreement, if they are operating with fundamentally different conceptions of skills. For example, the conception of skills advanced in this paper will turn out to be significantly different from the one used by Annas. So it is not as simple of a matter as thinking that there is a single skill model of virtue, and that some accept it while the rest reject it.

This paper relies on two main sources for its account of skills and expertise, on which the 'virtue as skill' thesis will be based. The most well-known philosophical account of skill acquisition is the one developed by Hubert and Stuart Dreyfus in their research on the extent to which artificial intelligence can duplicate human expertise.[4] According to the Dreyfus account, skill acquisition is broken into 5 stages, with a progression from using context-free rules to developing a sensitivity to the relevant features of particular situations. One of the implications of this account for the 'virtue as skill' debate is that Dreyfus specifically rejects the Socratic account of skills which Annas promotes.

However, as useful as the Dreyfus model has been, we cannot rely solely on it for the most accurate portrayal of skill acquisition and expertise. The Dreyfus model is based mainly on research done in the 1980's, and there has been a considerable amount of psychological research done on expertise in the last 20-30 years. A model of skill acquisition that will be of use in settling debates about the 'virtue as skill' thesis will need to reflect this recent research. References to some of the current psychological literature on expertise will appear throughout the paper, in order to clarify or correct some of the claims that have been made about the nature of skills. While a completely fleshed-out account of intellectual virtues as skills is beyond the scope of this paper, the conclusion to be drawn is that the most promising account of the skill model of virtue supports the project of modeling intellectual virtues on ethical virtues in virtue epistemology.

The first section of this paper provides an overview of the Dreyfus account of skill acquisition. The second section gives a brief outline of Zagzebski's account of intellectual virtues. Zagzebski uses a neo-Aristotelian conception of virtue, and crucial to her project is

[4] Dreyfus, H. & Dreyfus, S., Mind Over Machine: The Power of Human Intuition and Expertise in the Era of the Computer. Oxford: Basil Blackwell, 1986.

arguing that virtue, like knowledge, is a 'success' term. The third section provides an analysis of her arguments regarding the relationship between virtue and skill. While Zagzebski argues that moral skills need to be acquired in order to possess virtue, she still believes that there are crucial motivational differences between virtues and skills, differences which it will be argued here are vastly overstated.

The fourth section covers how Annas uses her conception of virtue as skill to argue that Zagzebski cannot model intellectual virtues on moral virtues. Annas argues that while moral virtues aim at the broad goal of living well, intellectual virtues have to aim at the more immediate target of truth, and this prevents the latter from being modeled on the former. The fifth section raises some doubts about the accuracy of the account of skills that Annas is working with in her skill model of virtue. The elements that Annas believes are fundamental to the claim that virtues are skills have a high degree of intellectual rigor, but do not seem to be present in most examples of practical skills. The final section argues that moral virtues should also be seen as aiming at an immediate target in a way similar to intellectual virtues, and thus intellectual virtues can be modeled on moral virtues.

The Dreyfus Account of Skill Acquisition

The Dreyfus model divides skill acquisition into five stages: novice, advanced beginner, competent performer, proficient performer, and expert. At the initial stages of skill acquisition, novices follow simple and context-free rules, such as, in cases of driving, "shift into second gear at ten m.p.h." or use the two-second rule in judging how much space to leave between you and the car in front of you. Since the rules at this stage are context-free, however, they are apt to fail in a variety of different circumstances, such as when driving in the rain or in heavy traffic. As

the novice gains experience, he discovers new features of situations, or someone else points them out, as relevant. Instead of relying only upon rules, the advanced beginner starts using maxims, which are not context-free like rules, but rather take into account the new features of situations of which the advanced beginner is aware. A maxim for driving might be "when the engine sounds like its racing shift up in gear." This maxim refers to the situational aspect of engine sounds, which it takes experience to recognize, and so this type of instruction is inappropriate for novices.

Even these maxims have their limitations, however, for the number of situational factors can become overwhelming. Moving beyond maxims requires making choices about what the most relevant factor is in a situation, and this is done by adopting a specific plan or perspective. According to the Dreyfus model, the competent performer feels responsible for both the choice of perspective and the outcome of that choice, and thus becomes emotionally involved in the experience of the outcome. "An outcome that is clearly successful is deeply satisfying and leaves a vivid memory of the plan chosen and of the situation as seen from the perspective of the plan. Disasters, likewise, are not easily forgotten."[5] These outcomes provide the feedback that a person needs in order to improve her skill. The feedback, if positive, reinforces making that choice again in a similar situation. The feedback, if negative, prompts the person to make a different choice in that situation. The success conditions provide the necessary feedback. While the competent performer has to make up rules to help him decide what plan or perspective to adopt in order to focus in on the relevant features of a situation, the proficient performer no longer uses rules or even makes a choice about a plan. The proficient performer simply

[5] Hubert Dreyfus and Stuart Dreyfus, Mind Over Machine: The Power of Human Intuition and Expertise in the Era of the Computer (Oxford: Basil Blackwell, 1986) p. 26.

experiences the situation in the light of a certain perspective, without making a conscious decision about the most appropriate perspective to take in the situation.

The final stage is that of Expertise. Dreyfus and Dreyfus discovered that one of the hallmark features of expertise is an intuitive form of decision-making. By 'intuition', they "are referring to the understanding that effortlessly occurs upon seeing similarities with previous experiences."[6] The ability of the expert to act well intuitively is due to the expert's experience and familiarity with the situation in which she acts. The immediacy of the expert's judgment occurs because of repeated exposure to similar previous experiences, and the outcome of actions taken in those situations, so that:

> With enough experience with a variety of situations, all seen from the same perspective but requiring different tactical decisions, the proficient performer seems gradually to decompose this class of situations into subclasses, each of which share the same decision, single action, or tactic. This allows an immediate intuitive response to each situation.[7]

The expert knows what actions are required and how to perform them in that situation without detached calculation or having to weigh alternatives. An expert driver will shift gears when appropriate without even being aware of it. It is important to note, however, that the ability to act well without deliberation is restricted to situations the expert has experienced before. Unfamiliar situations will require the expert to deliberate about what to do, and as the Dreyfuses point out, "since principles are unable to produce expert behavior, it should be no surprise if falling back on them produces inferior responses."[8]

[6] Dreyfus, *Mind Over Machine,* p. 28.
[7] Dreyfus, 'Towards a Phenomenology of Ethical Expertise', p. 235.
[8] Dreyfus, 'Towards a Phenomenology of Ethical Expertise', p. 241.

Hubert Dreyfus has discussed the possible ethical implications of the skill model. In his view, acting ethically is a type of skill, and "The skills model thus supports an ethics of situated involvement such as that of Aristotle, John Dewey, and Carol Gilligan."[9] He notes the similarities between the expert and Aristotle's practically wise person, claiming "according to Aristotle, since there are no rules that dictate that what the *phronemos* does is the correct thing to do in that *type* of situation, the *phronemos,* like any expert, cannot explain why he did what he did."[10] While experts may be able to say something about why they did what they did, the (re)construction of their reasons for action may not be accurate, and in any event such a condition is not necessary for expertise. On the Dreyfus account of skill acquisition, expertise is less intellectual in structure, and more grounded in learning from experience, than is often assumed. On this account, ethical expertise will be compatible with a broadly neo-Aristotelian approach to ethics.

Zagzebski's Account of Intellectual Virtues

In proposing that a skill model of virtue might work for intellectual virtues as well as moral virtues, it will be beneficial to consider aspects of Linda Zagzebski's account of intellectual virtues for several reasons. Zagzebski develops her account of intellectual virtues by modeling them on moral virtues, and more specifically on a neo-Aristotelian conception of virtue. Even more promising is the fact that she gives a prominent role for skills in acting virtuously. On the other hand, she explicitly rejects the constitutive claim that virtues are skills.

[9] Dreyfus, 'The Ethical Implications of the Five-Stage Skill-Acquisition Model', p. 251.
[10] Hubert Dreyfus, 'Could anything be more intelligible than everyday intelligibility?', in J. Faulconer and M. Wrathall (eds.), *Appropriating Heidegger* (Cambridge: Cambridge University Press, 2000), p. 162.

Thus, it will be worth delving a bit into her account of intellectual virtues to see why she thinks virtues are associated with skills, but are not themselves skills.

According to Zagzebski, a virtue is "a deep and enduring acquired excellence of a person, involving a characteristic motivation to produce a certain desired end and reliable success in bringing about that end."[11] This account of virtue has two main elements. The first is a motivational element, which specifies the end at which virtue aims. The second element is reliable success in attaining the end of the motivational element. Zagzebski views these two elements as capturing our interest both in the motivations for our actions and the consequences of our actions. She believes this definition is broad enough to include both moral and intellectual virtues.

Her method for classifying some virtues as intellectual virtues centers on the idea that "the individual intellectual virtues can be defined in terms of motivations arising from the general motivation for knowledge and reliability in attaining the aims of these motives."[12] Intellectual virtues all share in the general motivation to have cognitive contact with reality, where this includes more than what is usually expressed by saying that people desire truth. For example, intellectual virtues might also aim at understanding, certainty, or advancing knowledge in general. Some examples of intellectual virtues are carefulness, thoroughness, perseverance, open-mindedness and impartiality.

These intellectually virtuous motivations will lead the agent to guide her belief-forming processes in certain ways, in order to achieve reliable success with respect to knowledge. Specifically, the intellectually virtuous motivations make the agent "receptive to processes

[11]Linda Zagzebski, *Virtues of the Mind* (Cambridge: Cambridge University Press, 1996), p. 137.

[12] Zagzebski, *Virtues of the Mind*, p. 166.

known to her epistemic community to be truth conducive and motivate her to use them, even if it means overcoming contrary inclinations."[13] By truth conducive, she means something broader than leading to more true than false beliefs. A process is truth conducive just in case it is a necessary condition for advancing knowledge. What she has in mind here are intellectual virtues such as originality or creativity, which are necessary to advance knowledge, but do not lead to a high percentage of true beliefs. As long as these traits, in combination with other intellectual virtues, are self-correcting, they will eventually advance human knowledge.

Zagzebski's Discussion of Virtues and Skills

Because of the importance of reliable success in her account of virtue, Zagzebski claims that virtues are associated with skills. These 'moral' skills provide the knowledge of how to achieve success with the goals of virtue. Despite this association of virtues and skills, she rejects the idea that virtues are themselves skills. She relies on some common objections to the idea that virtues are skills. The first objection to the idea that virtues are skills is that skills are mere capacities, while virtues are dispositions. The difference has to do with motivation, in that skills are supposed to be capacities that you have regardless of whether you are motivated to act skillfully or not, while virtues require that you are always motivated to perform well. While there is a relevant distinction here, it does not require rejecting the idea that virtues are skills. Overcoming this objection, though, requires reflecting on the degree to which the motivation to act well is present in virtues and skills.

An initial look at some of the recent psychological research suggests that motivation is actually one of the most important elements in achieving expertise. Frequent estimates place the

[13] Zagzebski, *Virtues of the Mind*, p. 176.

amount of time necessary to achieve expertise in a field at 10 years or 10,000 hours. In addition, improving your level of skill requires not the mere repetition of things you already know how to do, but continually striving to do things that you currently cannot do. This kind of experience is referred to as 'deliberate practice', and it's roughly 10,000 hours of deliberate practice that's needed for expertise. "Unless a person wants to pursue the difficult path that leads to the development of talent, neither innate potential nor all the knowledge in the world will suffice."[14] Barry Zimmerman notes that "coaches and expert performers have ranked desire to succeed as the most important factor for eventual success in a domain."[15] One of the key questions this expertise research is still attempting to address is "how some people manage to persevere through the very long periods of practice and experience, involving both successes and inevitably many failures, that we now know are so essential to the development of expert levels of skill."[16] So it appears that virtues cannot be contrasted with skills merely on the grounds that one requires that you be motivated to act well while the other does not.

Furthermore, once expertise has been achieved in a skill, the same kind of deliberate practice is necessary to retain expert performance. Although it might be thought that once you achieve expertise you never really lose it, "the available evidence suggests that maintaining skills is as effortful as acquiring them in the first place, and benefits become increasingly more specific, that is, limited to those skills that are actively practiced and maintained."[17] Expertise

[14] Csikszentmihalyi, M. and Rathunde, K. and Whalen, S. Talented Teenagers: The roots of success and failure. New York: Cambridge University Press, 1993, pp. 31–32.
[15] Zimmerman, B., Development and Adaptation of Expertise: The Role of Self-Regulatory Processes and Beliefs, in K. A. Ericsson (ed.), The Cambridge Handbook of Expertise and Expert Performance. Cambridge: Cambridge University Press, 2006, p. 709.
[16] Feltovich, P. and Prietula, M. and Ericsson, K. A., Studies of Expertise from Psychological Perspectives, in K. A. Ericsson (ed.), The Cambridge Handbook of Expertise and Expert Performance. Cambridge: Cambridge University Press, 2006, p. 45.
[17] Krampe, R. and Charness, N., Aging and Expertise, in K. A. Ericsson (ed.), The Cambridge Handbook of Expertise and Expert Performance. Cambridge: Cambridge University Press, 2006, p. 733.

requires some level of routine practice to maintain it or the level of skill degrades over time. Thus, even after achieving expertise, a high level of motivation is still required to maintain one's expertise. Similar to our expectations of acquiring virtue, achieving expertise and maintaining it requires being strongly motivated to act well.

Despite the important role motivation plays in expertise, Zagzebski suggests that there is still another way in which virtues and skills differ with respect to motivation. She claims that:

> The conclusion to be drawn from this discussion is that virtues and skills have numerous connections, but virtues are psychically prior to skills. I propose that this is because the motivational component of a virtue defines it more than external effectiveness does, whereas it is the reverse in the case of skills.[18]

One could argue that Aristotle agrees to some extent with this priority claim regarding virtue, because he thinks getting people to have the right motivations occurs in the upbringing of a child. Children can be motivated to seek noble ends, but because they lack experience and practice they are not particularly effective at achieving those ends. This is where skills enter the picture for Zagzebski:

> Since skills *are* connected with actions of a certain specifiable sort, it follows that effectiveness in action requires skills, and to the extent that a virtuous person is motivated to produce external consequences desirable from the point of view of the virtue, he would also be motivated to acquire the skills that are associated with such effectiveness in action.[19]

[18] Zagzebski, *Virtues of the Mind*, p. 115.
[19] Zagzebski, *Virtues of the Mind*, p. 115.

Since the motivation spurs the acquisition of skills which make one effective, motivation is prior to skillfulness. But in that sense, motivation is also prior in the acquisition of practical skills, since gaining a skill takes determined and sustained effort which you will not put forward unless you are highly motivated. Hence, these observations do not require us to think of virtues and skills as two different things. Expertise requires both motivation and skillfulness, and neglecting that point leads people to mistakenly think there is a crucial difference between skills and virtues.

As for the motivational component defining virtue more than success, that can be easily explained if one views virtues as specifically moral skills, where morality is normative and essentially demands that we are motivated to act well, unlike other skills which are not essentially normative. With standard cases of practical skills, since there is not an inherent demand to act skillfully, what defines them more is simply whether you can act skillfully. Part of the difference between virtues and skills with regard to motivation surely lies in the subject matter, as skills like chess do not involve matters that stand to seriously benefit or harm people, and so there is not an inherent problem with choosing not to play your best. But virtues are the kind of skills for which it always seems to matter whether we exercise them or not, notwithstanding some virtues where there is a choice of when we exercise them (like generosity). However, that does not entail that virtues are not skills, as it can be that they are just a special type of skill. This response is along the lines that Zagzebski uses in response to James Wallace's argument that virtues are not skills because all virtues are valuable but not all skills are valuable. As Zagzebski points out:

> This argument does not support the conclusion that virtues are not skills, however, but only that the class of virtues is not coextensive with the class of skills. On Wallace's

> reasoning it might be the case that every virtue is a skill, although not every skill is a virtue.[20]

So consistent with Zagzebski's argument, one could claim that not every skill is a virtue because not every skill deals with matters of morality. Virtues are those skills that deal with matters of morality, and because of that there is a motivational demand with respect to the virtues that is not necessarily a part of other skills. The additional motivational component does not show that what you are acquiring is not a skill; instead virtues are essentially the moral subset of skills.[21]

One further argument that Zagzebski employs is that skills are associated with techniques, where techniques are understood to be inherently difficult actions, whereas virtues are not. "Although some virtues involve being able to do difficult things, the difficulties involved are due to contrary inclinations (past or present), not to technical difficulties in the actions themselves."[22] The problems here are twofold. First, there seems to be the implication that skills do not involve overcoming contrary inclinations. This appears false, especially when Zagzebski cites "just plain laziness" as one of the contrary inclinations that must be overcome in developing virtues. Certainly, if mastering skills is difficult, then laziness will be an obstacle that has to be overcome. Second, it does not make sense of virtues to think of them as not involving difficulties other than ones of inclination. That would imply that always knowing what honesty requires presents no inherent difficulties. But honesty is a particularly difficult virtue to know what it requires, regardless of whether there are any contrary inclinations to be overcome. There is a lot of literature, for example, on the subject of whether one is permitted to

[20] Zagzebski, *Virtues of the Mind*, p. 107.
[21] No attempt is made here to determine what criteria should be used to determine which skills count as moral skills. This account should be compatible with a variety of criteria for picking out the virtues.
[22] Zagzebski, *Virtues of the Mind*, p. 108.

mislead in a business negotiation. Thus, virtues and skills cannot be contrasted merely on the grounds that the difficulties involved in each are entirely distinct.

Zagzebski's claim about virtues and techniques also creates some tension with her broader project of modeling the intellectual virtues on the moral virtues. It is very important that Zagzebski is able to claim that virtue requires reliable success, because it is central to her virtue epistemology that virtue is a success term in the same way that knowledge is a success term. Given the importance of reliable success, Zagzebski should not be downplaying the skillfulness of virtue, since on her account "Skills serve virtues by allowing a person who is virtuously motivated to be effective in action."[23] Skills provide the knowledge of how to act effectively, and thus provide the element of reliable success that makes virtue a success term. Her mistake lies in thinking that this is an effective contrast between virtues and skills, since it is instead an argument that virtues are very much like skills.

Annas's Critique of Zagzebski

Even if these responses are successful in showing how moral virtues may be understood as a type of skill, it may still turn out to be the case that intellectual virtues cannot be understood in the same way. Julia Annas has argued that a skill model of virtue does not support modeling intellectual virtues on moral virtues, because there is crucial difference between the two types of virtues. Her main critique is that although virtue is "a success notion", intellectual and moral virtues are disanalogous in the type of success that matters. Annas distinguishes two potential targets that virtue aims to hit. One is success in achieving the immediate target of a particular virtue, and the other in achieving the overall goal of virtuous activity. The immediate target of a

[23] Zagzebski, *Virtues of the Mind*, p. 113.

courageous act might be to safely rescue someone from a dangerous situation, but the overall goal of all virtuous activity is living well. Annas says that virtue is a skill, a kind of "global skill", which is the skill of living your life well. Success in hitting one target does not necessarily imply success in hitting the other target. The two can come apart. One might succeed in hitting the immediate target, but perhaps for the wrong reason or motivation, and thus the action does not contribute to living well. One might not hit the immediate target through sheer bad luck, but since the motivation behind the action was correct it counts for Annas as achieving the overall goal of virtue.

Given that there are two different standards of success, the question then becomes which one matters from the standpoint of ethics and epistemology. According to Annas, from the perspective of ethics, the kind of success that matters is achieving the overall goal. Why is this the case? For Annas, it has to do with the role of moral luck:

> For achieving the overall goal is a matter of having the right motivation, and this is up to the agent, since it is she who makes her life be one kind of life rather than another. But success in achieving the immediate target may not be in this way up to the agent, and may depend on various kinds of moral luck.[24]

If one assumes that moral luck should not play a role in these kinds of moral judgments, then the relevant type of success cannot be hitting the immediate target. This is not to deny that those who have virtues are more reliable in hitting the immediate target than those without the virtues, rather it is just not what matters most.

[24] Annas, 'The Structure of Virtue', p. 25.

Essentially, Annas just rejects the element of "reliable success" in Zagzebski's account, at least for the ethical virtues. She does not think consequences matter, and she does not want this kind of externalist element. She claims "Here virtue ethics parts company with theories like consequentialism, for which it is the actual results that matter for our evaluation of the agent"[25] and she claims that having an externalist element of moral luck is "an unacceptable position"[26] since it is not completely up to you whether you are virtuous.

So what type of success matters most for epistemology? Annas claims that knowledge as a success term must be aiming at achieving the immediate target (truth), and hence the analogy between moral and intellectual virtues breaks down. The problem with claiming otherwise is that you would allow for cases of knowledge in which you were intellectually motivated in the right way but through no fault of your own your belief is false. The requirement for virtuous success in ethics conflicts with the requirement for virtuous success in epistemology, and so any attempt to model intellectual virtues on moral virtues is flawed.

Critiquing Annas' Account of Virtue as Skill

There are two lines of response to Annas' critique of modeling intellectual virtues on moral virtues. The first is to question the general plausibility of the account of skills she is using. The second is to focus on her more specific claim that, on a skill model of virtue, moral virtues do not require hitting the immediate target.

Although Annas defends a skill model of virtue, she is working with a very different conception of skills than the Dreyfus account. One of her central claims is that experts have the ability to 'give an account' of their actions. Giving an account, according to Annas means "that

[25] Annas, 'The Structure of Virtue', p. 25.
[26] Annas, 'The Structure of Virtue', p. 27.

the person with a skill be able explicitly to explain and justify her particular decisions and judgements, and to do so in terms of some general grasp of the principles which define that skill."[27] The expert needs to be able to articulate the reasons for her actions, and this explanation should draw upon the expert's grasp of the principles underlying the skill. Although this condition could be thought of as requiring merely that the principles are articulatable, rather than requiring that the expert can actually articulate the reasons herself, Annas explicitly describes this requirement in terms of the expert being able to articulate the reasons for her actions.

The Dreyfuses, on the other hand, did not find the ability to be articulate to define expertise. In their research on experts, the Dreyfuses found that experts frequently were not able to give an account of how they knew what to do in the manner suggested by Annas. They do not find such a result surprising, because of the intuitive form of expert decision making:

> It seems that beginners make judgments using strict rules and features, but that with talent and a great deal of involved experience the beginner develops into an expert who sees intuitively what to do without applying rules and making judgments at all. The intellectualist tradition has given an accurate description of the beginner and the expert facing an unfamiliar situation, but normally an expert does not *solve problems*. He does not *reason*. He does not even act deliberately. Rather he spontaneously does what has normally worked and, naturally, it normally works.[28]

On the Dreyfus account, since experts generally act well without applying rules and principles, it is no surprise that experts often find it difficult to explain their actions by reference to principles.

[27] Annas, 1995, p. 233.
[28] Hubert Dreyfus and Stuart Dreyfus, 'Towards a Phenomenology of Ethical Expertise', *Human Studies* 14 (1991), p. 235.

Support for the Dreyfus account can be found in the work of Particia Benner, who has successfully applied their skill model to the field of nursing. Her findings support the Dreyfus skill model in general and the inarticulateness of experts specifically. Benner quotes an expert psychiatric nurse clinician who is discussing her clinical judgments:

> When I say to a doctor, "the patient is psychotic," I don't always know how to legitimize that statement. But I am never wrong. Because I know psychosis from inside out. And I feel that, and I know it, and I trust it . . . One of the things that I am doing now is getting some in-service in to talk to us about language. But all I am really trying to do is find words within the jargon to talk about something that I don't think is particularly describable.[29]

Benner informs us that this is a nurse who has over 15 years of experience in the field, who is well respected by nurses and physicians for her clinical judgments, and who is reliably (though probably not always) correct. Besides being reliable at acting well, experts are also identified by their intuitive responses, rather than by articulate justifications.

In addition, the psychological research on expertise does not support experts being able to give an account in the manner described by Annas. Research shows that "experts often cannot articulate their knowledge because much of their knowledge is tacit and their overt intuitions can be flawed".[30] Even when experts are able to articulate an explanation, the explanations are often inconsistent with the observed behavior of the experts. These problems occur both when experts are asked about a specific task they just performed and when asked in general about their

[29] Patricia Benner, *From Novice to Expert* (New Jersey: Prentice Hall Health, 2001) p. 32.
[30] Chi, M., Two Approaches to the Study of Experts' Characteristics, in K. A. Ericsson (ed.), The Cambridge Handbook of Expertise and Expert Performance. Cambridge: Cambridge University Press, 2006, p. 24.

methods. "When experts are asked to describe their general methods in professional activities, they sometimes have difficulties, and there is frequently poor correspondence between the behavior of computer programs (expert systems) implementing their described methods and their observed detailed behavior when presented with the same tasks and specific situations."[31] Of particular difficulty is getting an answer to the question of why the person responded one way rather than another:

> Because participants can access only the end-products of their cognitive processes during perception and memory retrieval, and they cannot report why only one of several logically possible thoughts entered their attention, they must make inferences or confabulate answers to such questions. In support of this type of confabulation, Nisbett and Wilson (1977) found that participants' responses to "why-questions" after responding in a task were in many circumstances as inaccurate as those given by other participants who merely observed these individuals' performance and tried to explain it without any memory or first-hand experience of the processes involved.[32]

It is important to note, however, that the research does not support the conclusion that experts can never accurately articulate their reasons for action. Rather, there are reasons why such articulation may be inherently difficult, and so articulation is not seen as a hallmark of expertise. In short, experts are identified by their performance, and such experts have not been found to be able to reliably given accurate accounts of their decisions and judgments. Annas, on the other hand, deems the inability of a person to 'give an account' as evidence that one is not an expert. It is this specific claim that is undermined by the research on expertise

[31] Ericsson, K. A., Protocol Analysis and Expert Thought: Concurrent Verbalizations of Thinking during Experts' Performance on Representative Tasks, in K. A. Ericsson (ed.), The Cambridge Handbook of Expertise and Expert Performance. Cambridge: Cambridge University Press, 2006, p. 231.
[32] Ibid., p. 230.

The Target of Virtue

Notwithstanding these general concerns about the conception of expertise that Annas is using as the basis for her skill model of virtue, it could still turn out to be the case that she is correct about moral virtues aiming at a different target than intellectual virtues. According to Annas, the success that matters for moral virtue is success in achieving the overall aim rather than the immediate target. Her argument appears to hinge on the claim that "if, like the Stoics, we distinguish clearly between the immediate target and the overall aim, it is achieving the latter, not the former, which will make the action a success".[33] The way the Stoics distinguish clearly between these two standards of success is by pointing out that "achieving the overall goal is a matter of having the right motivation, and this is up to the agent",[34] while achieving the immediate target depends in part on moral luck which is not fully up to the agent. If one assumes, as Annas and the Stoics do, that moral luck should not be a factor in whether you are able to lead a good life, then the success that matters is the one that is not affected by moral luck, which is success in achieving the overall goal.

According to Annas, the Stoics believed that "it is up to me whether I succeed or fail in acting virtuously – that is, with the right motives, from a developed disposition and with the right reasoning".[35] It is not obvious, especially on the skill model of virtue, that this claim is entirely true. As Aristotle notes, virtues and vices are habits, and which habits we develop depends upon the kinds of situations we face and how we react to them. What kinds of situations we face, though, is not something we have complete control over. Aristotle remarks that "it is by our

[33] Annas, 'The Structure of Virtue', p. 25.
[34] Annas, 'The Structure of Virtue', p. 25.
[35] Annas, 'The Structure of Virtue', p. 27.

actions in dangerous situations in which we are in the process of acquiring the habit of being courageous or afraid that we become brave or cowardly, respectively."[36] Your ability to develop either the virtue of courage or the vice of cowardice depends upon the extent to which you have had opportunities to act in dangerous situations. Without such opportunities, you have not had sufficient experience to develop any particular habits, good or bad. What situations you face are to some extent a matter of luck, and so how you turn out as a person is not completely up to you. For example, some German citizens who aided the Nazis in carrying out their atrocities may have led otherwise good lives if it were not for them being in the wrong place at the wrong time. All it required was a certain degree of obedience to authority, rather than necessarily any wickedness or vice, to cause people to act badly, as Milgram's obedience experiments later helped to demonstrate.[37] Some people have had the misfortune to be placed in Milgram like situations repeatedly. While these considerations cannot fully address the overall role of luck in ethics, they should demonstrate that defining success in terms of an immediate target should not be dismissed so quickly.

The conception of the skill model of virtue based on the Dreyfus account of skills can lend support to a focus on hitting the immediate target. Practical skills require feedback for improvement, so there needs to be some identifiable goal to the exercise of your skill. It is difficult to see how the feedback mechanism would work if virtue is a 'global skill', that is, the skill of living your life as a whole as Annas claims. One problem is that the target in that sense is very broad and vague, which will make it difficult to determine whether you are acting in such a way as to achieve success. As Daniel Jacobson points out in a discussion of the virtue as skill

[36] Aristotle, *Nicomachean Ethics*, trans. H. Apostle (Grinnell: The Peripatetic Press, 1984) 1103b14-17.
[37] Stanley Milgram's social psychology experiments on obedience to authority in 1961.

thesis: "The plausibility of a skill-based epistemology was earned by arguments focusing on discrete virtues such as courage and kindness."[38]

A more serious problem is her claim that "with virtue it is not the results which define success".[39] If the results of your actions are not relevant for defining success, then virtues cease to be like practical skills. When it comes to developing practical skills, it is the result of your actions that can generate feedback so you know how to improve. If success in virtue is just "a matter of having the right motivation",[40] then virtues turn out to be very different from practical skills. It is important to note that although Zagzebski also privileges motivation, Zagzebski claims that virtue requires a motivational element and an element of reliable success, whereas Annas here is collapsing the two by claiming that the element of success in virtue just is having the right motivation. Annas's account of virtue ceases to be analogous to skills, since success when it comes to practical skills requires producing the right results – in medicine it is curing the patient, in navigation it is arriving at your destination, in chess it is winning the game, and so on. If the skill model of virtue is taken seriously, it leads to a conception of success that includes hitting the immediate target.

If Annas is right that a viable definition of knowledge in terms of virtue "must be aiming at success in achieving the immediate target"[41] then the skill model of virtue supports the approach Zagzebski takes. The standard for virtuous success in ethics is going to be analogous to the standard for virtuous success in epistemology. While moral virtues and intellectual virtues are not aiming at the same target, they still consider success to be measured by hitting an

[38] Daniel Jacobson, 'Seeing by Feeling: Virtues, Skills, and Moral Perception', *Ethical Theory and Moral Practice* 8 (2005), p. 401.
[39] Annas, 'The Structure of Virtue', p. 26.
[40] Annas, 'The Structure of Virtue', p. 25.
[41] Annas, 'The Structure of Virtue', p. 29.

immediate target. So the skill model of virtue lends support to Zagzebski's project of using the structure of moral virtues for intellectual virtues, and using intellectual virtues to help define knowledge.

Conclusion

While a complete account of intellectual virtues as skills is beyond the scope of this paper, the most plausible account of the skill model of virtue supports modeling intellectual virtues on ethical virtues in virtue epistemology. If virtues are like skills, then they need to be seen as aiming at an immediate target, which requires both motivation and skillfulness to hit.