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Value by Acquaintance

Abstract: I argue that we should recognize the importance of value by acquaintance, both as a philosophical concept in its own right and as one with applications to practical reasoning and decision making. My argument centers on how the distinctive epistemic and psychological structure of knowledge-how is reflected in a distinctive capacity to value. After delineating my account of value by acquaintance, I discuss its role in practical reasoning and decision making, connecting it to the reference class problem, the value alignment problem in machine learning, and decision making, closing with an application to recent debates about transformative experience, testimony, and authenticity. My discussion, in effect, shows how experience can matter for knowing how to value, and why such expertise (or wisdom) can be important.

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1. Introduction

The decision to become an artist can be fraught. Consider the choice to train as a professional cellist. Even if you have enormous talent, you are choosing to undertake a journey that is uncertain and difficult. It requires significant effort and sacrifice, and offers only a small chance of success. However, living such a life could hold significant value for you. You must decide if the risk and the sacrifice are worth it.

The trouble is, until you actually live this kind of life, there is something that you cannot know. As a student, deciding whether to pursue a music career, you can gather facts about life as a musician, and be guided by those who have already devoted their lives to becoming professional cellists. Using their testimony, you can know that this kind of life has a certain value. Yet, in an important sense, you don't know how to value this sort of life. Leading a life as a professional cellist will teach you about its value in a way that you cannot discover until you actually live it.

Here is Yo-Yo Ma describing the way he learned to appreciate playing the cello:

“Well, as a 4-year-old, I learned it, you know, fairly easily. Kids absorb things, as a sponge absorbs water - really easily. After 9 years old, you don't pick up languages naturally. You actually start to analyze things. You use your mind. And it's a different process of assimilation. So by the time I got to my 20s or 30s, this piece became hard. Because how do I play it? How do I - and what I discovered and what made it so beautiful for me is that ... if I thought of an image of water, of a brook or a river, and if I thought that the piece started before I began and I just joined the water - you know what it is about a river? It's never the same river, but you always call it the same river, but the water's never the same. So if I think of a water element, here's what it ends up sounding like.

(Playing cello).

You actually get to code infinite variety, right? In a world where we can measure everything, or we think we can measure everything, how wonderful it is that you could have the poetry of music or poetry or music that actually makes you think you are touching infinity.”²

For those of us who are not virtuoso cellists, we can understand Ma's testimony about the value of playing cello. We can even know that playing the cello in this way is a way of knowing how to value it. And yet, unless we have actually played the cello at this level, we cannot know how to value it in this way. Life as a professional cellist

² Yo-Yo Ma, to Terry Gross, *Fresh Air* (NPR), May 29, 2024, 12:52 PM ET.

presents the performance of the music to you in a new way, and this changes how you understand and appreciate its value.³

Gilbert Ryle (1949) pointed out the importance of attending to the distinctive nature of knowing how to understand the world, as opposed to merely knowing facts or truths about the world.

“In ordinary life, ... as well as in the special business of teaching, we are much more concerned with people’s competences than with their cognitive repertoires, with the operations than with the truths that they learn. Indeed even when we are concerned with their intellectual excellences and deficiencies, we are interested less in the stocks of truths that they acquire and retain than in their capacities to find out truths for themselves and their ability to organise and exploit them, when discovered.”⁴

In contemporary epistemological debates, the anti-intellectualist takes knowing how to φ to be a nonpropositional ability or disposition had by a knower. It is a kind of knowledge that is distinct from propositional knowledge (knowing that φ), which involves a relation between the knower and a true proposition φ . The intellectualist responds that all knowledge is propositional knowledge, but grants that knowing-how, while still a species of knowing-that, has a distinctive epistemic profile.

Pavese (2015) puts the intellectualist approach especially clearly:

“Suppose I look at a swimmer’s swimming, and my swimming instructor pointing to the swimmer, says to me “That is a way in which you could swim too.” I believe my instructor and we may suppose that what she said is in fact true. I may thereby come to know a true answer to the question “How could I swim?” However, in the relevant sense, I may not have come to know how to swim. If I took a swimming test, I might still fail it. If thrown in the swimming pool, I might still drown. I do not know how to swim in the relevant sense, and yet I do know a true answer to the question “How could I swim?”

In response to this style of objection, intellectualists concede that knowledge simpliciter of any true answer to the question “How could one φ ?” may not give one knowledge how to φ , in the relevant sense. They maintain that for one to come to know how to φ , in the relevant sense, one must come to know

³ The idea is not that testimony is irrelevant. Far from it. My argument is that it cannot substitute for experience in the special relevant sense that is required to grasp the dimension of value that is required here.

⁴ Ryle (1949) p. 29.

a true answer to the question “How could one φ ?” under a practical mode of presentation.”⁵

The practical mode of presentation in play here is generated by acquaintance and can be developed along the lines of a Fregean sense, or way of understanding, the relevant propositions.⁶ The idea is that there is a way of knowing how to perform an action, knowing how to φ , that involves having a distinctive ability.

We can apply this insight to knowing the value of playing music as a professional cellist, and more generally, to cases where experience of φ is necessary for knowledge of how to value φ . The distinctive relationship between knowledge-that and knowledge-how, recognized by anti-intellectualists and intellectualists alike, implies an analogous relationship between knowing that something has value and knowing how to value it.

That is, simply knowing that an event has a certain value does not imply that one has the ability to value it in every relevant sense. Acquaintance with φ can be necessary to know how to perform a certain type of action, a mental action that is a particular way of valuing φ .⁷ In short, knowledge by acquaintance of φ can be necessary to know how to value φ , that is, to endow one with the ability to value by acquaintance.⁸ While this fact has been recognized, at least implicitly, in some domains (most notably with regard to aesthetic appreciation), it has not been developed in full generality, and its consequent importance for decision-making has not been fully appreciated.

In this paper, I will argue that the distinctive epistemic structure of knowledge-how is reflected in a distinctive capacity to value, and that we should recognize the importance of value by acquaintance, both as a philosophical concept in its own right and as a concept with applications for decision-making. After delineating my account of value by acquaintance, I discuss its role in practical reasoning and decision-making.

⁵ Pavese (2015), p. 1. For the intellectualist response and the original connection to knowing what it's like, see Stanley and Williamson (2001). For further discussion see Stanley (2011).

⁶ Pavese (2015) explores the possibility, on behalf of the intellectualist, that modes of presentation can be understood as ‘practical senses’, and develops an account modeled on the structure of software programming.

⁷ More precisely, one needs the right sort of acquaintance with the φ -kind. There are interesting ways to explicate this that I'll leave aside in the interest of brevity.

⁸ Lord (2018) argues that acquaintance plays an important role in the acquisition of “appreciative knowledge”, i.e., knowledge of how to appreciate moral and aesthetic properties. I take his arguments to provide additional support for my more general claim that acquaintance can be necessary for knowing how to value a future, as-yet-unrealized event φ .

2. Knowing how to value

Why do you have to become an expert cellist before you can fully understand how it will affect you? For aesthetic experiences, their sensory content is part of what they are. If such content is indescribable, testimony from others is insufficient: until you've actually had the experience, you cannot know its nature. This may be one reason why you can't know the full value (and disvalue) of a life devoted to artistic excellence until you live this kind of life.

The need for acquaintance with aesthetic properties in order to know how to value them is widely accepted. Many theorists have also argued that we must be directly acquainted with moral properties in order to know how to value them.⁹ I agree with these views. However, I think we can cast the net wider.

That is, I think the point generalizes. For many kinds of lived experiences, including but not limited to aesthetic and moral experiences, you must actually have them to grasp their nature in a way that will give you knowledge of how to value them. You can know that such an experience has value, and you may even be able to know, via the testimony of others, ways of valuing it, and yet, you may not know how to value it yourself in the relevant way. You can have knowledge that the experience is a certain way, but you don't know how it is that way, which entails, in an important sense, that you lack the ability to evaluate the impact it will have on the person (yourself, or another) who has that experience. Moreover, just as the concept of knowledge by acquaintance and its relation to expert know-how applies in full generality, the concept of value by acquaintance and its relation to value expertise applies in full generality.

As such, value by acquaintance is relevant for many types of practical situations, in particular, in contexts of practical assessment and decision-making. In such contexts, one must be acquainted with an event (or state, or propositional content) φ to know how to value it, in particular, in order to know how to value it under the right mode of presentation. The new mode of presentation might be a practical mode (following Pavese 2015), or it might be a phenomenal mode (following Stanley and Williamson 2001) that leads to a practical (cognitive) ability. Through acquaintance with φ , we can gain a mode of presentation for φ , one that endows us with new know-how: knowledge of how to value φ .

The importance of knowing how to value a circumstance in a practical way is clear

⁹ Recognizing the importance of knowing how to value has implications for a wide range of philosophical contexts where valuing plays a role, such as those involving moral testimony, moral expertise, aesthetic judgments, epistemic injustice, and testimonial injustice. See, e.g., Annas (2001), Cath (2019), Driver (2013), Hawley (2010, 2011), Hills (2009), Hopkins (2007), Fricker (2007), Lackey (2020), Lord (2018), Maibom (2017), McGrath (2008, 2011), Paul (2021), Sauchelli (2023), Sayre-McCord (1996, 2012), Schellekens (2024), Sliwa (2012). My explication of the role for knowing how to value in decision-making connects in useful ways to these other topics.

to anyone who has undergone something difficult, painful, or traumatic, and is attempting to prepare someone else—someone who has never had that kind of experience—for what they are about to undergo. For example, you can find yourself in this situation if you are trying to prepare someone for the ordeal of going through a divorce, or being given a frightening medical diagnosis, or going off to fight in a war.

Testimony can tell a person that an event will have a certain causal, emotional impact on them when they undergo it, and thus in this sense can inform them about what to expect. You can tell a person about the way the experience was for you, and about how it is for most people, or about how it will change them according to what the best science says, and in this sense you can tell them that the event will have a certain impact on them. And yet, until they experience the event for themselves, there is something they do not know: they do not have a full understanding of how this event will be important and meaningful to them. As a result, they lack the ability to fully appreciate how it will impact their lives. In this sense, they lack the practical know-how, or the ability to value in the right way.

Imagine being a new recruit, about to go to war. You can be taught and warned and guided by those who have already fought. From their stories and testimony, you can know at some level that you could face terrible suffering and pain. You can believe that you will undergo something intense and difficult, yet powerful. You can know that you might be killed, and others could be killed around you. You can anticipate that the sensory overload will be overwhelming, and that you'll face some of the grimmest parts of human life. You might even suspect that, in moments of fear and aggression, you'd focus so purely on the moment that you'd lose your sense of who you are.

And yet, in an absolutely important and essential sense, you don't know how you will respond to war—how truly horrifying and frightening you will find it to be. Even though your battle-hardened comrades can tell you what to expect, there is no way they can describe the true nature of what's to come. They can warn you, preparing your mind for what is to come, but in order to gain the ability to know how to (dis)value the horrors of war in the relevant sense, something more than testimony is needed. You have to become acquainted with war to acquire this know-how. You must have access to war under the right mode of presentation.

“The experience of the war shows us again and again that you cherish life, you value life, in the point of when it's very close to death. At that point, you really understand what life means. This is a very important feeling. This is a very deep experience from which philosophy, art, culture grows, I think.

It's not accidental that the first big works of European culture, like "Iliad", is a poem about the war, about the loss. The most striking elements when Priamos goes to Achaean's camp to get the body of his son, right? So this is very important feeling, when you face the loss, when you face something that you lose, when you understand that something will disappear, can disappear. Your life can disappear. The life of your children can disappear. Your house can disappear. Your freedom can disappear..."¹⁰

Experience of war brings the content of the horrors of war under a phenomenal mode of presentation, giving you a new phenomenal concept.

Merely knowing, through testimony, that war has disvalue is not sufficient to fully gauge its meaningfulness and its importance to your life, nor, by extension, its meaningfulness and its importance for the lives of others. Such know-how requires experience of a particularly awful type. In these contexts, the distinctive contribution that knowledge by acquaintance can give you is the knowledge of how to disvalue such an experience.¹¹

3. Cognitive reorientation

There is something strange about the fact that gaining the ability to know how to value a lived experience can require acquaintance. What is strange about this is that there is no obvious conceptual necessity involved in the relation between experiencing such an event and appreciating this dimension of its importance.

At least, there is no obvious conceptual connection if there is no new content discovered, such as new properties that can only be discovered through experience. Now, in some cases, there might be such properties. There might be sensory features or other characteristics of an event that are only discoverable through acquaintance, where discovery of such features is necessary for knowing how to value in the relevant way.

But I think there is something more general here that does not depend on the existence of such properties. I think the need for acquaintance to have a certain type of ability to value is an interesting psychological fact about us, a causally contingent fact about human beings. The role for experience in knowing how to value seems to stem from a type of physical necessity drawn from the way the human brain works.

That is, given the physical facts about human brains, it is physically necessary that experience is needed for the capacity to value in this way. Contemporary neuroscience

¹⁰ Yermolenko (2022), on the war waged by Russia on Ukraine, as interviewed by Ezra Klein.

¹¹ Acquaintance with war might not be sufficient to gain knowledge-how: you have to properly grasp the nature of the experience through your acquaintance, and not everyone will.

suggests an explanation: in the human brain, when visual or other sensory cortex is stimulated, reward centers of the striatum are also activated.¹² The activation of these reward centers can generate an ability to recognize and assign value. If this is the physical story behind the way that having the experience of ϕ teaches you how to value ϕ (the neural activity physically realizes your ability to value ϕ), then the distinctive physical changes that are caused by acquaintance create a distinctive neural and cognitive path to valuing by acquaintance.

Put simply, in ordinary physical circumstances, becoming acquainted with an event through first-personally experiencing it is needed to awaken your brain, to make that event meaningful to you in ways that you couldn't appreciate beforehand. This type of knowledge by acquaintance realizes your ability to know how to value the event.¹³ This is how I am understanding the idea of gaining a new mode of presentation, which realizes a new phenomenal concept. Cognitively responding to the experience of ϕ generates, in the perceiver of ϕ , a mode of presentation of ϕ , and this endows the perceiver with knowledge of how to value ϕ in the relevant way.

This physical fact about our brains functions as a normative constraint in the sense that the epistemic and decision-theoretic claims I am making here are intended to apply to ideal human or humanlike reasoners. (Reasoners with very different types of brains may not have this limitation.) That is, while the fact that acquaintance can be necessary to know how to value in this way is a physical fact about our brains rather than a conceptual fact, it is still normative (or, at least, has normative consequences). It is not merely a descriptive fact about how ordinary humans fall short of our ideal reasoning standards for human agents, but rather a fact about how the bridge from knowledge to the ability to assign value is constructed in human agents.

We can understand this physical change as generating a type of cognitive reorientation.¹⁴ A classic thought experiment, Molyneux's problem, can give us a natural way to illustrate the sort of cognitive reorientation that experience can bring, as well as providing a more familiar example of how gaining a new mode of presentation can change the way we appreciate a certain content. As Locke puts the thought, drawing on Molyneux's original question:

¹² Wimmer and Shohamy (2012). Note that there is no requirement of veridicality here. You just need to have an experience as-of- ϕ . I'll elide this distinction in what follows, but all that is strictly necessary for my claims is the as-of- ϕ experience.

¹³ Work on the psychological importance of "experiential explanations", that is, explanations structured around our ordinary experience, supports the practical importance of experience for value assignment. Aronowitz and Lombrozo (2020) argue that experiential explanations have a distinctive role as "...inputs to mental simulation and can carry over to a new context when background theory changes, making old theories and evidence intelligible from a new standpoint" p. 1323.

¹⁴ Cath (2019), Stanley and Williamson (2001).

“Suppose a Man born blind, and now adult, and taught by his touch to distinguish between a Cube, and a Sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and t’other; which is the Cube, which the Sphere. Suppose then the Cube and Sphere placed on a Table, and the Blind Man to be made to see. Quaere, Whether by his sight, before he touch’d them, he could now distinguish, and tell, which is the Globe, which the Cube.”¹⁵

Touching a cube versus seeing a cube are different ways of knowing the same geometric shape. Given the success that blind agents have in navigating the sighted world, it seems like there is stable content—geometric content—that translates across touch to vision.¹⁶ And yet, this can’t be the whole story about knowing the shapes. In some sense, what the blind man knows by touch must be the same as what he’d know through vision, but in another sense, there is something missing.

The intellectualist will presumably hold that a blind person who knows the difference between the shapes via touch knows the difference between the shapes simpliciter. This follows from the assumption that (i) they know the shape of the cube and they know the shape of the sphere, and (ii) knowing these geometric facts entails that they know the difference between the shapes. But if this is correct, then how can such an intellectualist understand the epistemic changes involved when this person, on gaining vision, discovers what it is like to see a cube and what it is like to see a sphere? (And, by extension, when they discover the visual difference between the cube and the sphere?)¹⁷

Intuitively, even if we assume that the geometrical nature of the shapes can be known through touch alone, without visual experience, a certain way of knowing them is inaccessible. When a blind person gains vision, the way they experience the world of shapes changes quite radically. What is the ground of this new experience?

Returning to my discussion of new content from above, one possibility is that, with the addition of visual perception, new features of shapes are discovered, such that new content becomes accessible. The new content isn’t geometrical, by stipulation. Rather, it is non-geometrical content that is unavailable to those who lack visual perception.¹⁸

¹⁵ Locke (1690).

¹⁶ See, e.g., Bedny et al. (2019).

¹⁷ The question isn’t merely theoretical. In real life, even if it only takes a little while for a newly sighted person to learn how to visually distinguish the cube from the sphere, research on human subjects with recently removed cataracts shows they can’t make the distinction immediately. After they gain vision, it takes time for them to learn to distinguish the shapes, as work done primarily by Pawan Sinha, a computational neuroscientist at MIT shows, see, e.g., Held et al. (2011).

¹⁸ See O’Callaghan, C. (2019) for a defense of this idea and, in general, an excellent discussion of multisensory

However, another explanation, one that does not require the discovery of new content, is available.¹⁹ We can regard discovering the cube and the sphere through visual experience as learning how to represent the known geometric facts in a new way. Through gaining vision, the blind person learns about the shapes under a new mode of presentation, the visual mode of presentation. On this account, the content available is constant across the haptic and visual modes, and yet, new things are learned by presenting the same content differently, such as the ability to visually distinguish them. There is debate about what, exactly, this empirical result implies for philosophers of perception.

This discovery of how to represent known geometric facts in a new way brings a cognitive reorientation. Such a reorientation will mean the formerly blind person has new abilities and can make new inferences, with correspondingly new opportunities to explore and discover their world. They discover new phenomenal concepts. Generalizing, when a person, blind from birth, gains ordinary vision, the world opens up to them in a new way.²⁰ This is so even if they learn no new facts, that is, even if they were already in full possession of all their worldly facts through testimony from friends, family, and trusted advisors. Gaining vision changes the way these facts are presented to them, creating a cognitive reorientation that generates a new way for them to know their old world.

Going back to the war example, in just the same way, when new recruits first go to war and discover a new mode of presentation of facing death, they also cognitively reorient. Well, not in just the same way. In the case of a blind person gaining vision, the new mode of presentation, generated by the new kind of experience, arises through gaining a new sensory capacity. In the case of the soldiers, the change in mode of presentation comes through a new kind of experience, but the new experience doesn't come from a cognitive reorientation brought about by gaining a new sensory capacity. Rather, the new mode of presentation is created through a cognitive reorientation caused by the physical contact with the event itself.

In such cases, even without gaining a new sensory ability, the physical changes created by experience of ϕ change how the perceiver knows ϕ , changing their capacity to assign value. Again, there is no assumption that new facts must be learned, nor that new kinds of value are discovered. Rather, causal contact with the event creates a physical change in the perceiver (perhaps through activation of the striatum and

perception.

¹⁹ One reason I am keen to develop an approach that does not require the discovery of new content stems from the empirical work done by Bedny et al. (2019), which suggests that congenitally blind adults and sighted adults have functionally equivalent understandings of visual concepts like "brightness" and "dazzling."

²⁰ There will also be cognitive losses, usually significant ones. Some formerly blind adults find the losses to be more significant than the gains.

subsequent neural changes as described above), one which realizes a new mode of presentation and attendant new phenomenal concepts, cognitively reorienting them and endowing them with new abilities to know how to value the event.

As such, the cognitive significance of acquaintance is relevant to our capacities to value in a wide range of new kinds of lived experiences that are not primarily sensory and need not involve the discovery of new facts or properties, including, for example, the experiences of becoming a parent, emigrating to a new country, transitioning to a new gender, or becoming disabled. Just as with the case of the blind person, the epistemic significance of this kind of new lived experience need not consist in learning new facts or new content.²¹

The epistemic profile of this cognitive reorientation aligns with skillful knowing, or expertise, such that access to the right kind of mode of presentation is a requirement for expertise.²² Again, this is perfectly familiar in the ordinary case: military troops don't respect a general because he knows that going to war has a certain (dis)value, they respect him because he knows how to value going to war. That is, they respect him because of his know-how, or his expertise.

In sum: the structure of the distinction between knowing-that and knowing-how is reflected in the epistemology of value. Even in a case where a perceiver has full propositional knowledge, perhaps from scientific or anecdotal evidence, about the value of some future event, something can still be gained by experiencing that event. What can be gained is a kind of cognitive appreciation. The new appreciation stems from the cognitive reorientation to content already known in other ways, perhaps already known via testimony or known via inference, yet understood differently when presented in experience. Such a reorientation is explainable at the neural level as well as at the cognitive level. The reorientation endows one, via acquaintance, with the ability to represent the event in a new way, a way needed for the ability to know how to value the event in the relevant way.

²¹ For the purposes of this paper, I am happy to adopt an intellectualist stance towards what is learned, as I am exploring the way that even a relatively conservative physicalist, intellectualist approach to what is discovered can make room for the importance of value by acquaintance through employing modes of presentation. An intellectualist approach to expertise in value assignment does not require one to accept a new ontological category of value and thus fits well with the univocal value assumptions at the heart of contemporary decision theory. Intellectualism also fits well with outstanding treatments of indexical knowledge and semantics, making it an appealing candidate for the synthesis of the separate but deeply related topics of value, expertise and rational agency. That said, some may prefer to argue, even in cases where all the relevant propositions are known, that nonpropositional or perhaps even new phenomenal content is learned via acquaintance, and thus that new kinds of value are discovered. This would have interesting and strong implications for decision theory, as it would imply that the overall values of experienced-based outcomes could not be discoverable without acquaintance.

²² Pavese and Beddor (2023).

4. Practical decision-making and knowing how to value

In this section, I will discuss how value by acquaintance connects to two topics in practical decision-making: (i) the reference class problem and (ii) expertise in decision modeling.

4.1 The reference class problem

The reference class problem arises when we want to determine how likely some event is, but our assessment of its likelihood changes depending on how we frame or classify that outcome.

As Reichenbach (1949) states the problem:

“If we are asked to find the probability holding for an individual future event, we must first incorporate the case in a suitable reference class. An individual thing or event may be incorporated in many reference classes, from which different probabilities will result. This ambiguity has been called the problem of the reference class.”²³

Hájek (2007) argues persuasively that the reference class problem infects all major theories of probability. He distinguishes between the metaphysical solution of relativizing the probability of an event’s occurring relative to each of the different reference classes it is a member of (i.e., relative to different properties of the event) and the epistemological solution of knowing which reference class is relevant to the probability we need to determine.²⁴

Using an example drawn from Venn (1876), where we are to determine the probability that “John Smith, a consumptive Englishman aged fifty, will live to sixty-one,” Hájek points out that:

“It will not help [John Smith] much to tell him of the many conditional probabilities that apply to him, each relativized to a different reference class: “conditional on your being an Englishman, your probability of living to 60 is x ; conditional on your being consumptive, it is y ; ...”. (By analogy, when John Smith is pondering how far away is London, it will not help him much to tell him of the many distances that there are, each relative to a different reference

²³ p. 374.

²⁴ Hájek frames his preferred account using conditional probabilities. For simplicity and consistency, I will frame the problem in terms of conditional probabilities as well. Nothing turns on this.

frame.) If probability is to serve as a guide to life, it should in principle be possible to designate one of these conditional probabilities as the right one. To be sure, we could single out one conditional probability among them, and insist that that is the one that should guide him. But that is tantamount to singling out one reference class of the many to which he belongs, and claiming that we have solved the original reference class problem. Life, unfortunately, is not that easy—and neither is our guide to life.”

The point is that John Smith needs some independent means for knowing which of the categories he belongs to is relevant for the particular probability assessment he needs to make (the “right” one). Without this information, there is no meaningful sense in which he can discover his probability of living to age 61.

One way to solve this problem is to assume that the only categories that matter for one’s determination are gross demographic categories like nationality, sex, and age. This type of approach is, in fact, something we are all familiar with. When we receive anecdotal testimony or read about a scientific result that could have implications for ourselves, the immediate question is whether we ourselves are members of the population that the results apply to. If all that matters are major demographic categories, we can solve the epistemological version of the reference class problem by brute force. Conditional on your being English, consumptive, and aged 50, you have a certain expectation of living to 61.

But such demographic categories are often far too coarse grained for the reasoning we wish to undertake. Even when the demographics fit, you might have other properties that could matter more (perhaps, unlike John Smith, you make especially healthy eating choices, and you live in a flat with a view of the Washington monument). So, you need a way of determining which other categories to attend to when assessing your conditional probabilities. You have a certain expectation of living to 61, conditional on being English, consumptive, aged 50, and a healthy eater, and you have a certain expectation of living to 61, conditional on being English, consumptive, aged 50, and living in a flat with a view of the Washington monument. Which expectation is the “right” one? How are you supposed to know? If you already know that healthy eating affects your probability of living to 61, while living in a flat with a view of the Washington monument does not, you know what to take into account and what to discard. But, by hypothesis, you do not already know this; this is what you are trying to determine.

How does value by acquaintance play a role in the reference class problem? Recall that, in the cases of interest, one must be acquainted with the event (or state, or propositional content) ϕ to know how to value it in the relevant way, in particular, in order to know how to value it under the right mode of presentation. That is, for the cases

of interest, you need acquaintance with φ to fully gauge its meaningfulness and importance to your life. This means that knowing how to value an event can play a role in determining which categories, or conditional probabilities, are the right ones for you to attend to.

Go back to our opening example, where you have to make an important, high-stakes decision of whether to undertake an expensive and time-consuming course of study in order to become a professional cellist. In such a case, let's say, you collect testimony from professional musicians (such as Ma), about their own experiences and the experiences of those who have made similar decisions. This testimony gives you a distribution of chances of possible outcomes, some better, and some worse, conditional on the personalities, demographics, and other properties of those who have already made this choice. Using their testimony to inform your own choice, you infer that given your personality, demographics, and other properties you share with this population, you can have similar conditional expectations.

As is obvious by now, the relevance of these conditional probabilities to your own choice depends on which categories are the "right" ones, the ones that actually matter for you. How do you know which ones will matter for you? You face the reference class problem.

You could try to solve it using simple demographics, that is, by brute force, choosing based on similarities of gross categories like age, nationality, and so on. But it seems like other types of properties having to do with your personality or temperament are more important. It seems like conditional probabilities determined by properties such as: How resilient are you? How hard are you willing to work? How would you respond to the experience of "touching infinity?" are what you should use. But, again, how are you supposed to know which of these similarities matter for determining your preferred conditionals?

A natural way to address the question is to reflect on your personality and other characteristics, imagine yourself training to become a professional cellist, and assess how you would respond to such a life. You imaginatively evolve yourself forward under the right mode of presentation, projectively assessing which features you have that will matter most for your choice. Put a different way, the hope is to use your imagination in order to assess the testimony you've gathered, imaginatively applying what others say to your own case. You imagine yourself as a professional cellist in such a way that leads to determining the right conditional probabilities and make your choice on this basis.

And of course, the trouble here is that, without acquaintance with the experience of being a professional cellist, you lack the capacity to accurately simulate yourself in a way that highlights the relevant properties. That is, you lack the know-how you need

in order to construct the relevant (*de se*) mode of presentation needed to locate yourself, or (using the language from the previous section) to cognitively orient yourself, in the right reference class. You need to actually experience this kind of life before you can know how such a life will impact you. So you need experience to know which of the conditional probabilities actually matter for your choice. It's a Catch-22.

The same sort of problem arises for the decision of whether to sign up for the military (in order to fight in a war). You can know, from others' testimony, that war is terrible, but you won't know how to value the terribleness of war unless you experience it yourself. Merely knowing, through testimony, that war has disvalue is not sufficient to fully gauge its meaningfulness and its effect on your life. Again, a standard way to try to patch in the missing practical knowledge involves imaginatively simulating what it's like to be in battle, such as imagining oneself fighting in a way that leads to one's accurately knowing which features of oneself matter for the decision at hand. But without acquaintance, how can you know that you are accurately grasping the nature of this experience under the right phenomenal mode of presentation, the one you need for an accurate assessment? Again, you face the epistemological version of the reference class problem.

In fact, this version of the reference class problem stems from well-known difficulties with transmitting knowledge-how via testimony. It is a version of a familiar problem for explaining why knowledge-that is insufficient in testimonial contexts. As Cath (2017) argues, the transmission of knowledge-how via testimony requires the transmission of knowledge of certain self-involving facts that are required for the recipient of the testimony to gain the requisite know-how.²⁵ The trouble is that this type of knowledge is not contained in the testimony provided, and this iterates into problems with self-involved decision-making.

4.2 Authorship

Expertise in valuing also relates to generative learning and flexible agency, two hallmarks of human intelligence. Generative learning occurs when intelligent agents actively construct relationships and make associations between new inputs, including new experiences, and their existing knowledge, beliefs, and attitudes.

I'll illustrate the connection between generativity, agency, and knowing how to value through the notion of an agent's being able to construct their own policy or plan for solving a problem in a new context, one where know-how is required. Call the distinction between being able to follow another person's testimony about value versus knowing how to assign or assess value on one's own a distinction between

²⁵ Poston (2015) argues that problems with testimony cast doubt on intellectualism.

being able to follow a value policy and being able to author a value policy.

In computational cognitive science, a policy is, roughly, a set of action rules an agent can follow in order to maximize their chance of achieving a reward. Think of an agent playing a game, such as a maze with a reward in the middle. Solving the problem is getting to the reward (ideally, in a maximally efficient way). The policy is the decision model the agent uses to get to the goal: first, enter the maze, then turn left, then turn right, etc. If they get to the reward they have successfully followed the policy, and if they are the most efficient agent, they win the game. The decision model encodes values for actions related to the value of efficiently getting the reward, and in this sense, value judgments are built into a policy.

Contrast the task of following one's policy to get to a reward to a higher-level cognitive task: designing the decision model for the game. This corresponds to identifying the problem and setting up the policy that will solve it, which requires understanding the relative value of different action plans for different environments and different outcomes. Think of the difference between the ability to choose between nodes of an existing decision tree for a game versus building the decision tree itself for the game. The ability to successfully design a decision model for a game (to build the decision tree itself) requires one to be able to author a policy, which is an ability of an entirely different order than merely being able to follow a policy, or choose between nodes of an existing tree built by the engineer. (Even a very simple robot can follow a policy.)

The ability to author a policy is needed for an agent to be a flexible problem solver, as it endows an agent with the capacity to create new kinds of policies. That is, it is generative: because the agent can author a policy, they can generate new kinds of policies in new situations (for new possible games) and choose between them without being told or instructed or programmed what to do. Compare an agent built to play a particular kind of game that successfully navigates its environment only when that particular game is being played with an agent that, when transported into a new and unknown environment, builds a new policy that can (in principle) successfully navigate the new game environment.

The ability to author a policy is both elusive and highly prized in a wide range of contexts, not least in artificial intelligence contexts. Machines have been constructed with amazing capacities that exceed human ones on many dimensions, but they cannot yet manage to frame, set up, and solve policies for surprising environments. They cannot respond in ways that were not anticipated for them by their engineers.

In these contexts, the elusive ability is not about being able to follow rules, or even about being able to build out nodes that extend an existing decision tree, or being able to execute tasks on a highly skilled level. As long as the rules of the game have been properly defined and programmed, a machine that follows and builds out its

policy can succeed. Indeed, machines such as AlphaZero beat the best human players at chess, shogi, and go, demonstrating superhuman abilities that suggest they are able to discover, represent, and execute new patterns of play that humans with their limited computational resources cannot discover.²⁶

Such feats notwithstanding, at this point of time in our technological progress, these machines lack something that is distinctive of human intelligence. They lack the ability to flexibly (and quickly) respond to independent, unanticipated changes in the world. For example, there are arbitrary ways to change the rules of a game that can cause the machines' abilities to win to collapse—unless of course these types of changes were anticipated by their engineers, that is, were anticipated by the authors of their policies.

Without being reprogrammed or rebuilt, such machines will not be able to play the new game, because they were not designed with the right policy. They cannot build a new policy for the surprising new situation. (This is just a version of what we have seen over the past decade with the failed attempts to develop fully automated self-driving cars.) In contrast, human players, even ones with minimal levels of expertise in these games, can almost immediately reformulate their approach, adjusting their thinking to the new rules, responding to surprising new possibilities, and creatively developing new ways to play, i.e., building new decision trees for the new game.

This difference in how one responds to unanticipated, entirely new changes in one's world captures the difference between merely being able to follow a policy versus having the expertise to author a policy. The ability to recognize that a policy needs to be changed, and in response, to design a new policy that involves a new kind of rule or respond to a new kind of experience involving previously unanticipated properties, represents a clear line between current machine intelligence and human thought. It is safe to say that the development of the kind of flexible intelligence needed to author one's own policy in a surprising new context, that is, to be able to identify an utterly unanticipated problem, and in response, to be able to replace one's policy with a new one in order to set up and solve a new problem, is the holy grail of contemporary research in machine (artificial) intelligence.

As such, this ability is something that epistemologists should attend to. The focus on these abilities and their role in machine learning connects directly to questions in normative decision theory concerning decision models that are apt for the types of reasoning that human agents engage in. (It is related to a normative conception of intelligence, the so-called concept of general intelligence.)

In particular, while there are many things that are needed for developing a

²⁶ Silver et al. (2017, 2018) and Schrittwieser et al. (2020).

machine that would be able to reason about and build new policies in new environments in a flexible, human-like way, it is essential that any such reasoner has the ability to take into account everything that matters for the problem it is to set up and solve. By extension, if we are to build machines that are to solve problems for human agents, such machines need to be able to take into account everything that matters to humans, and to take it into account in the way that it matters to them. This means it needs to know how to assign value in the ways that matter for human agents.

This is a version of what, in discussions of machine intelligence, is called “value alignment.” As machines assume more and more responsibility for high-level decisions, the importance of value alignment has become apparent. It has become clear that, at least if we want high-functioning machines to perform tasks that align with human objectives, we need to build machines that can follow novel value policies. Such value policies need to be built in ways that align with human values.

By extension, the distinction between being able to follow a value policy versus being able to author a value policy becomes extremely important. If machines are to make important decisions, we need to build them with the ability to know how to value new or unanticipated outcomes.

Without this kind of expertise, if a machine is tasked with developing a policy for human beings in a new context that its engineer has failed to anticipate, from executing a weird smartphone instruction to making high-level assessments of weapons deployment in the midst of a nuclear emergency, it will likely fail, and fail catastrophically.²⁷ Nobody wants an AI that cannot appreciate the cost of widespread human suffering, or more generally does not know how to value unanticipated changes in human lived experience, to be in charge of whether to deploy a nuclear arsenal.

The broader point is that the ability to value by acquaintance connects to expertise in value assignment, whether the policymaker is human or machine. Obviously, in almost any complicated new situation, experts are needed in order to supply facts about the new situation. But, in some contexts, they are needed to do something else as well. They are needed to author new value policies, for example, to author policies for contexts involving new or unexpected kinds of human suffering. (Think of the surprising new contexts that arose during the Covid-19 pandemic, or that could arise in a context of nuclear war.) The affective nature of such outcomes, including their felt importance to the people who will experience those outcomes, matters, and we need to build this into our approach to value assessment (Bailey 2020).

When a policymaker, whether human or machine, is confronted with new or

²⁷ Value alignment for extraordinary contexts may not be possible without the kind of intellectual flexibility that comes with human-level intelligence.

unanticipated outcomes involving human lived experience, they must be able to evaluate these new outcomes under a mode of presentation that captures the relevant dimensions of such experience. That is, they must be able to author a new value policy. Such an ability requires expert know-how, the knowledge of how to value. Without acquaintance of the relevant sort, the human decision maker can lack relevant expertise. The problem for machines is even more serious, for without the ability to have experiences, it is not clear how machines are to gain the needed expertise. In any case, there is an important role for value by acquaintance for our analysis of high-level decision-making that concerns the wellbeing of human and other sentient creatures.

4.3 Personal decisions

Authorship can be as important in personal choices as it is for policy choices. Knowing how to assign value to new events occurring in high-stakes personal decision-making is as important as knowing how to assign it in high-stakes policy decision-making.

A reflective agent who wishes to deliberate prospectively and rationally about a major life choice needs a decision model for that choice. Such a model will map possible actions to possible outcomes, where an outcome is the effect of an action, and the expected value of that action is a function of the likelihood and value of the outcome, given the action.

If you are rational, according to expected utility theory, when action A has a higher expected value than action B, you prefer A to B, and you choose accordingly. In this way, your decision model gives you your policy, and you act rationally by following your policy to maximize your expected value. If your possible actions and options can be represented by a decision tree, your rational choices plot a path through the tree that, over time, maximizes your expected value. Major life decisions are those that have a significant impact on your expected value across your lifespan.

When you are making a major life decision for yourself or for someone close to you, especially when there are significant potential costs associated with each of the outcomes you are choosing between, you want to get things right. This means you want to follow the best policy. The best model for the choice will make the right credal and value assignments to its outcomes and the actions that could lead to them, giving you the best policy to follow.

Many normative contexts, including legal, medical, and social contexts, are designed around the assumption that the person with the most expertise in such contexts, that is, the person most suited to author the policy, is the agent themselves. You know yourself best, and for that reason, you have the requisite expertise to count

as the authority for your own choices and can author your best policy. A secondary context involves making choices for dependent others, such as children or aged parents; you know your child, or your parent, better than anyone else who could make the decision does, and as such, you have the expertise needed to author the best policy for a decision that involves them.

To author your best policy, you don't just need to know that certain outcomes and actions have value for you (or for the person you are deciding for), you need to know how these outcomes and actions have value for you (or for the person you are deciding for). You need to know how these outcomes and actions will impact your long-term lived experience and the long-term lived experiences of those around you. You want to know how the different outcomes and actions of the model will affect those who must suffer their consequences. This involves understanding the structure of the environment you are in, identifying relevant outcomes or goals and the actions you can take to achieve them, and crucially, knowing how to assign value to various outcomes in your model.

Somehow, then, your expected utility calculation should incorporate this know-how. That is, as my opening example about the choice of a music career suggested, there is a role for acquaintance with value and modes of presentation for value assessment in individual decision-making.

My general point here is that contemporary philosophical treatments of individual decision-making should intersect with the epistemology of skill and expertise, in particular, with the concept of value by acquaintance. To illustrate my point, in the next subsection, I'll explore value by acquaintance as it relates to debates about the role of testimony in decisions involving transformative experiences.

4.3.1 A policy of one's own²⁸

In my (2014), I argue that the subjective value of an event matters for decision-making.

On my view, an individual's subjective value is the value she ascribes to what it is like to have an experience. Such value is ascribed to the consciously experienced mental states that are perspectively centered or presented from one's egocentric point of view. (See List (2022) for a more formal representation of what this point of view, or "locus of subjectivity" could be.)²⁹

We can fit the notion of subjective value neatly into the value by acquaintance

²⁸ With apologies to Virginia Woolf.

²⁹ In the behavioral economics literature the value of experience seems to be recognized, at least implicitly, in calculations of expected utility in decision models for human agents and human values. See, for example, Kahneman (2000), and Loewenstein and Ubel (2008), on "experience utilities."

framework I've developed above. Take experience of "what it's like" to provide knowledge by acquaintance, generating know-how through the generation of phenomenal concepts. As such, we can understand knowing how to value φ as knowing the subjective value of φ through grasping a phenomenal concept of φ , where φ is a lived experience such as having a child or fighting in a war. One can know how to value φ , that is, one knows the subjective value of φ , in virtue of knowing the contents of the proposition describing φ under the "what it's like" mode of presentation, i.e., through possessing a phenomenal concept of φ .³⁰

My concern there is with the rationality of transformative decisions, where a person chooses to change their preferences in ways that it is impossible for them to imaginatively anticipate.³¹ I argue, first, that when we are making a life-changing decision for ourselves and others close to us, our subjective value judgments for the outcomes matter. (This is especially true when the choice is self-interested, that is, when the rightness of the action is not determined by objective moral, social, or legal obligations.) I argue, second, that in transformative, life-changing outcomes, having the lived experience of φ can be necessary for knowing its subjective value, for example, to know one's subjective value for becoming a parent. Relatedly, Woollard (2020) argues that pregnant persons have acquaintance with their fetus that provides privileged access to knowledge about that fetus's moral value.³²

Using these claims, I argue that if the agent making a choice to transform does not know what the transformative experience will be like, she does not know how to determine the subjective values of some of her relevant future outcomes. Without further information, crucial elements of the decision model—the subjective values of future outcomes—cannot be defined. Moreover, by stipulation, the transformative experience will change her current values for these outcomes, so she cannot simply map her current values onto her future outcomes.

We can reformulate the challenge within the framework of this paper as follows: transformative decisions are life-changing decisions where, due to lack of experience, you lack the know-how needed to fully appreciate the values of your future, post-transformation outcomes φ .³³ When, due to lack of acquaintance (experience), one cannot assess the propositional content φ under the right mode of presentation, that

³⁰ Lee (2023) describes phenomenal concepts as "yielding phenomenal knowledge, by which I mean possession of the phenomenal concept puts one in a position to acquire knowledge of what it's like to undergo the target experience."

³¹ Paul (2014) defines such decisions as "personally and epistemically transformative". For our purposes they can be seen as life-changing decisions where you lack the know-how needed to assign values to future outcomes.

³² As Bailey (2023) points out, experience might not be sufficient for knowing the subjective value, making the problem even more intractable.

³³ Kind (2020) argues that our imagination can be used to address this problem. Werner (2024) adduces similar arguments. See my remarks below about Cath (2019) and Cath (2024) and the reference class problem.

is, one cannot determine the subjective value of φ , one cannot author one's own policy for the decision. Transformative decisions are contexts in which you must make a major life choice for yourself (or for someone else), but you lack the requisite expertise to author the policy for that choice.³⁴

The kind of expertise you want in this context is one which allows you to grasp the nature of the cognitive reorientation you will experience if you undergo a transformation.³⁵

Mark Johnston captures an important element of this idea when he writes:

“...it is because affect can be the disclosure of the appeal of other things and other people that it can have authority in the matter of what we should desire and do. By 'the authority of affect' I mean not to refer to its sheer effectiveness as a source of desire or action, but rather to the fact that the presence of the affect can make the desire or action especially intelligible to the agent himself. It can make the desire or act seem apt or fitting in a way that silences any demand for justification.” Johnston (2001), p. 189

We can interpret my challenge through Johnston's lens: how are we to make a transformative choice without the authority of affect?

A standard reply to the challenge is to argue that you can use testimony from experts to assign the relevant future values for φ . Pettigrew's (2015) and (2020) replies have been the most influential, but others, such as Isaacs (2020) and Campbell and Mosquera (2020) have responded similarly. If (say) the prospective parent can look to expert testimony to tell her what her post-transformation values will be, then she can know that the relevant φ have values $v_1 \dots v_n$. She can then use this expert testimony to assign outputs to her value functions in order to determine her preferences.

In my (2014), I grant that testimony can contribute important information, but object to the strategy of relying solely on experts to determine one's values as inauthentic. Put in terms of value by acquaintance: to make your choice authentically, you need to know how to value your outcomes for yourself, and you cannot do so without the requisite acquaintance with said outcomes. Relying solely on experts for

³⁴ For example, Hofmann (2024) explores the way that key principles and requirements in medical ethics rely on assumptions about an agent's knowing herself best in order to have the understanding needed for informed consent “...disease involves TEs [transformative experiences] in ways that can reduce people's rational decision-making ability and undermine the basic principle of respect for autonomy and the moral rule of informed consent.” p. 2. See also Carel and Kidd (2020).

³⁵ This is clearly too strong. As Casey O'Callaghan pointed out to me, there are often unforeseeable consequences of transformative decisions. What we hope for is the ability to value the foreseeable consequences, in order to decide in an informed way, as best as we can.

your value assignment does not involve you in the right way. Pettigrew challenges this, arguing that:

“when I use statistical evidence to set my credences about my own utilities and then use these credences to make a decision, I am not simply deferring to the majority opinion in a way that renders my decision inauthentic. Rather, I am using the opinions of others as evidence about my own utility function. Put another way: I attend to the opinions of others not because I wish to follow the majority decision, but rather because I want to find out about myself” (p. 771).

The idea is that you can rely on experts to tell you about your own values in a way that meets the demands of authenticity.

It is not clear what definition of authenticity is under dispute here. But in any case, the problem with the choice does not seem to be that I lack access to the facts about my utility function. The problem is that I lack access to its intelligibility. Choosing to transform means choosing to become a future self who, following Johnston, is unintelligible to who I am now.

We can relate this to our discussion of the reference class problem, along with the role that expertise in authoring a policy brings out. These issues illustrate dimensions of the choice to transform oneself that Pettigrew’s response, call it the testimony strategy, does not address.

The first dimension concerns the reference class problem. Let’s assume that the expert testimony is accurate, well-meaning, and sufficiently comprehensive. Despite this, you face the reference class problem when you are expected to apply testimonial evidence to your own case, even if you are ostensibly a member of the population that the testimony applies to.

Return to the choice to become a professional cellist. Assume that such an experience would be transformative, and that a concerted scientific effort has been made to document the subsequent wellbeing of those who have made the choice. How are you supposed to knowledgeably apply this testimony to yourself in a way that gives you the relevant expertise? In order to use expert testimony to tell you about your own values, you must know which of your properties will matter for the testimonial results to apply to your own case.³⁶ How is your personal history, your individual disposition and personality, relevant to the conditional probabilities one can extract from the testimonial evidence? We are right back in the Catch-22 from section 4.1.

That is, to follow the testimony strategy, you need to know which of the facts

³⁶ The expert testimony that Pettigrew is recommending generally comes from two sources: scientific testimony and anecdotal testimony from friends and relatives. We explored the reference class problem in the context of anecdotal testimony in section 4.1. So I will not rehearse it again here.

presented to you by the expert testimony are your self-involving facts, and this is precisely what is unavailable to you under the circumstances.

Perhaps another route is available. Cath (2019, 2024) explores the possibility that, by having different but similar experiences to φ , a person can gain enough “what it’s like” knowledge to assign the relevant future values for φ . He describes such knowledge as “silver” rather than “gold,” where gold-standard “what it’s like” knowledge would be knowledge of φ -type experiences themselves (see also Lee 2023), while silver-standard “what it’s like” knowledge comes from adjacent, similar types of experiences. For example, a person who has never gone to war, but does have knowledge of what it’s like to be part of an emergency medical response team, could transfer their knowledge of how to value EMS response work to the assignment of value to what it would be like to go to war. Cath (2024) recognizes the complexity and limits of this claim. (Can a white person know what it is like to be a Black person, viz., gain the right sort of know-how, by having the right sorts of experiences? Also see Zoh et al. (2024).) However, at least in certain contexts, the idea seems plausible.

Put together with Pettigrew’s idea, the crucial claim here would be that, by having different but similar experiences to being a professional cellist, you can discover which of your properties are relevant for selecting the right conditional probabilities (of various outcomes with their specified utilities). But even this augmented testimony strategy falls victim to the reference class problem.

First, how are you to identify the right sort of experience that is similar to “touching infinity?” Does going stargazing count? What about taking psychedelics? Even if you can locate the right kinds of experiences, those that seem to be similar in the right sorts of ways for most people, how are you to know whether such experiences will be similar to your own future experience (in the relevant sort of way)? Will taking psychedelics or looking into the depths of the night sky teach you what it is like to experience the exquisite beauty of playing cello at the highest level of achievement? Moving away from aesthetic experiences, consider the war example. Which of the properties of being an emergency medic will help you to know how going to war will impact your life? You can make an educated guess: presumably working under pressure, seeing a lot of blood, and dealing with high-pressure situations are relevant properties. But are these the properties that will matter most? Maybe. Or maybe not—maybe what will matter most is your constant fear of being attacked and killed, or conversely, maybe you will not be afraid at all, and instead will revel in the glory of battle.

Obviously, one can hope that something about other types of experiences you’ve had will relate in the right sort of way to the choice to φ . And one can use such experiences to assemble and reflect upon an interestingly fine-grained set of conditional probabilities for oneself. Testimony can help you to prepare your mind for

possibilities involving φ . But the reference class problem ensures that it will not confer expert knowledge of how to value φ .

The second dimension that the testimony strategy does not address concerns the role of authorship. Recall Ryle's original point about the epistemic role for competence in knowing how to manage truths:

“In ordinary life... we are interested less in the stocks of truths that they acquire and retain than in their capacities to find out truths for themselves and their ability to organise and exploit them, when discovered.”

In high-stakes, life-changing, personal decisions, you want to competently discover and exploit your own future outcomes.³⁷

Once we see the problem in this light, the deficiencies of the proposal that the agent rely solely on expert testimony to make a transformative choice are immediately apparent. As we discussed above, testimony cannot transmit knowledge-how, merely knowledge-that, nor is it sufficient for resolving the reference class problem.³⁸ So the rational agent, lacking the competence to represent the impact of becoming φ under the right self-involving mode of presentation, must defer to the experts.

The issue is in fact, familiar from work on deference in moral and aesthetic domains (e.g., Lord 2018). In such contexts, pure deference to experts, that is, relying solely on testimony to determine one's moral and aesthetic values, is widely recognized as epistemically non-ideal (see, especially, McGrath 2009, McGrath 2011). That said, there is no generally accepted explanation for why such deference is problematic. However, several interesting proposals circle around notions related to authorship and authenticity.

For example, Hills (2009, 2010) argues that we need understanding for morally worthy action, and argues that testimony does not convey such understanding. She argues that:

“To understand why p you must have an ability to draw conclusions about similar cases, and to work out when a different conclusion would hold if the reasons why p were no longer the case... If you do have the relevant abilities, you can generate new true moral beliefs (and perhaps new moral knowledge) without relying on help or advice from anyone else.” (Hills 2010, p. 194)

³⁷ For an empirical exploration of the issues here, including discussion of novel ways to approach the problem in the lab, see Chituc, Paul, & Crockett (2021) and Zoh et al. (2024).

³⁸ Pettigrew (2015, 2020) argues that testimony is sufficient for knowing that one might change in a certain way in transformative circumstances, but his argument does not address the problem of the failure of transmission of know-how in testimonial contexts.

This captures a connection between understanding and generativity, or the ability to author a policy for φ in new or unanticipated circumstances.

Another strand of the literature develops a connection between knowing oneself and knowing how to assign moral value to φ . Howell (2014) argues that the problem with moral deference is that it subverts a need for one to subjectively integrate one's beliefs about φ with one's character and dispositions. Mogensen (2017), developing Howell's insights, argues that our objections to pure moral (and aesthetic) deference about the value of φ stem from a prior (if implicit) commitment to authenticity (rather than virtue). According to Mogensen, what is defective about pure moral or aesthetic deference is that it indicates a failure to integrate one's beliefs and judgments with one's identity, viz. who one is.

I find these discussions insightful. If we open up the frame of application of value by acquaintance to include transformative experiences, we can apply these ideas in a way that extends past the moral and aesthetic. What is lacking in transformative experience cases where an agent must rely solely on testimony to assign value to a future outcome φ ? Understanding, stemming in part from an inability to subjectively integrate one's knowledge of how to value φ with who, under transformation, one might become. The agent lacks the ability to work out, for themselves, how to value the transformative outcome φ in a way that relates to who they will be, once transformed. And so, if they must rely solely on expert testimony when they make a life-changing decision for themselves, they are violating an ideal of authenticity.

This does not mean you should not rely on expert guidance to make your choice. It means that there is a cost to following the best policy. When making a transformative choice to change, if choosing rationally requires you to rely solely on expert others, choosing rationally requires that you give up self-authorship.

5. Conclusion

I have argued that the distinctive relationship between knowledge-that and knowledge-how, recognized by anti-intellectualists and intellectualists alike, implies an analogously distinctive relationship between knowing that something has value and knowing how to value it. The epistemic structure of knowledge-how is reflected in our capacity to value. After developing the concept of value by acquaintance and its relationship to knowing how to value, I show how it is relevant to topics in practical reasoning and decision-making, both at the level of policymaking by experts and at the level of individual decision-making. My discussion, in effect, shows how experience can matter for expertise, and why such expertise (or wisdom) can be needed for decision-making.

Proof positive, if proof were needed, that youth is wasted on the young.

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