**Does the Epistemic “Ought” imply the Cognitive “Can”?**

**DRAFT – PLEASE DO NOT QUOTE WITHOUT PERMISSION**

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Given how you are currently situated, there are some propositions that you ought to accept, other propositions that you ought to deny, and still other propositions concerning which you ought to suspend judgment. Furthermore, you ought to be more confident of the truth of some propositions than of others, and you ought to be just as confident of the truth of some propositions as of others. In short, in your judgments, suspensions of judgment, and degrees of confidence, you are subject to *epistemic oughts*. But does your subjection to these epistemic oughts imply that you *can comply* with these oughts? In epistemology, does “ought” imply “can”?

 Many epistemologists have recently argued that the answer to this question is negative, and they have done so not simply by adducing putative cases of “ought” without “can”, but rather by defending views concerning the epistemic “ought” that explain why we should expect this “ought” *not* to imply “can”. For example, Nicholas Wolterstorff, Richard Feldman, and Hilary Kornblith have all articulated views about the epistemic “ought” that explain why this “ought” does not imply “can”. In this paper, I want to combine the insights of the views that these authors have defended, and build on them. In building on them, I will end up developing a view of the epistemic “ought” on which it does imply a certain kind of “can”. But I also want to argue that the kind of “can” that is implied by the epistemic “ought” is also a kind of “can” that *implies* the epistemic “ought”. In other words, I will argue that, in epistemology, not only does “ought” imply “can”, but that very same “can” also implies “ought”.

 I realize that this will be a hard sell. But I think that my conclusion will be easier to accept once I make it clear precisely what sort of “can” it is that is implied by the epistemic “ought”. To state my conclusion immediately but telegraphically the “can” that is implied by the epistemic “ought” is the “can” of *competence*, not the “can” of *opportunity*. Of course, this needs to be spelled out much more fully.

 One caveat before I begin: the considerations that have been adduced in the literature concerning whether “ought” implies “can” are, by and large, metaphysical considerations – not semantic, let alone formal. This indicates that the kind of implication at issue in the debate – and so the only kind of implication with which I concern myself here – is metaphysical. I am interested in the issue of whether it is possible (in some suitably broad, and so “metaphysical”, sense of “possible”) for it to be the case that a creature ought to comply with some epistemic norm, even though it cannot do so. I will not at all be concerned with the semantic or syntactic properties of “ought” or “can” constructions; I take these properties to be neutral with respect to the metaphysical issue in which I am interested.

 In order to isolate the kind of “can” that is implied by the epistemic “ought”, I’ll begin by considering three recently proposed views of the epistemic “ought”. It will turn out that, while each of these views is insightful, and to some extent true, none of them is explanatorily adequate. In developing our own account of the epistemic ought, we will therefore need to supplement the views that we consider.

**I. Wolterstorff on the Proper Function Ought**

Nicholas Wolterstorff distinguishes two kinds of “oughts”. (His distinction is not intended to be exhaustive. While it is intended to be exclusive, it is not clear that it need be in order to serve our present purposes.) First, there are “oughts” of obligation, failures to comply with which are *blameworthy*. And second, there are “oughts” of proper functioning, failures to comply with which are, in some way, improper, even if not blameworthy.[[1]](#footnote-1) Wolterstorff does not offer an account of proper functioning, but he attempts to clarify the notion of proper functioning at issue here by appeal to other, typically non-epistemic, examples:

“let me offer some other examples of the use of ‘should’ and ‘ought’ that have nothing to do with accountability, and so, nothing to do with praise and blame.

(i) ‘You ought to be walking on it in two weeks’ – said by a physician as he finishes binding up a person’s sprained ankle.

(ii) ‘It should have black spots all over its shell, not just around the rim’ – said by one person, ladybug in hand, explaining to another person what ladybugs look like.

(iii) ‘That’s strange; you ought to be seeing double’ – said by a psychologist to his subject while conducting an experiment in perception.

(iv) ‘Here your poem ought to have some breathing room; it’s too dense’ – said by a teacher of creative writing to a fledgling poet.

(v) ‘That’s puzzling; you should have believed it was in the other dish’ – said by a psychologist to his subject in the course of conducting an experiment on the formation of inductive beliefs.

“In none of these cases would there be any inclination whatsoever, on the part of the person speaking, to blame the person or object being spoken about. The patient is not to be blamed if, after two weeks, his foot is still too painful to walk on; the ladybug is not to be blamed for lacking some spots; and so on. And, of course, in none of these cases is there a relevant intention in view. The language of ‘should’ and ‘ought’ is used in such cases to point to what a properly formed specimen of the type in question would be like, or to how a properly functioning specimen would operate – conversely, to point to a feature of the specimen in hand that marks it out, or marks out its functioning, as malformed. Clearly this is a standard use of such language.”[[2]](#footnote-2)

And this “standard use” is precisely the use of “ought” that Wolterstorff thinks is involved in the epistemic “ought”.

 Wolterstorff is right that the epistemic “ought” is not the “ought” of obligation: while we might have some obligations when it comes to our credal states, such obligations (if indeed there are any) are at least typically not what we’re talking about when we say that someone ought to believe something. For instance, given the evidence that I currently possess, I ought to be more confident than not that the value of my stock portfolio will increase more than 1% over the next year. But I would not be violating any obligations if I were not more confident than not that the value of my stock portfolio will increase more than 1% over the next year. Of course, I might be violating an obligation I have, say, to my family, if I pulled all my money out of my stock portfolio right now and invested it in gold, stupidly thinking that it would be a better investment. And it might be rational for me to do just this if I were rationally extremely confident that the value of my stock portfolio was not going to be go up nearly as much as the value of gold. But, given my evidence, I could not be rationally extremely confident of this. Still, merely to be confident of this proposition, so strongly at odds with my evidence, is not, by itself, to violate any obligations.

 So the epistemic “ought” is not the “ought” of obligation. Is it the “ought” of proper functioning? Let’s suppose that it is, and see where that supposition takes us. Of course there are many proper functions: which of these could we plausibly take to fix the epistemic “ought”s? We can narrow down the answer to this question by pointing out that epistemic “ought”s concern our credal states. So clearly, the “ought”s mentioned in Wolterstorff’s examples (i), (ii), (iii), and (iv) are not epistemic. But what about Wolterstorff’s example (v)? Recall:

(v) ‘That’s puzzling; you should have believed it was in the other dish’ – said by a psychologist to his subject in the course of conducting an experiment on the formation of inductive beliefs.

Depending on how this example is fleshed out, the “should” here could be epistemic or non-epistemic. Consider each of the following two elaborations:

(va) The psychologist shows a subject a series of pairs of covered dishes, and tells the subject that a small object is located in one of the dishes. The psychologist then removes the covers to reveal that the small object is in the left dish, and nothing is in the right dish. After this happens 10 times, the psychologist then repeats the trials but this time asks the subject to identify which dish the small object is in, and the subject does. On each of the next 90 trials, the small object is in the left dish. Finally, the psychologist presents the subject with the pair of covered dishes a 101st time, and asks the subject in which dish the small object is located. The subject says that it’s in the right dish, and the psychologist says “that’s puzzling; you should have believed it was in the other dish”.

(vb) The psychologist shows a subject a pair of covered dishes, and and tells the subject that there is a small object located in one of the two dishes. Then the psychologist tells the subject (whose name, let us suppose, is “Alice”, and who, let us also suppose, has never taken any courses in formal logic) that if the small object is located in the left dish, then her name is Alice. Finally, the psychologist asks Alice which dish contains the small object, and Alice says, sincerely, that she has no idea which dish it is in, but she is going to guess the right dish. Now the psychologist says ‘That’s puzzling; you should have believed it was in the other dish’.

While the psychologist’s “should” in case (va) is plausibly epistemic, the psychologist’s “should” in case (vb) is not: the psychologist in case (vb) is expressing puzzlement that Alice does not seem to process material conditionals in the way that almost all logically uneducated people (and even most logically educated people) do when they are confronted with the Wason Selection Task.[[3]](#footnote-3) The results of the Wason Selection Task show that, in most domains, people reason as if, when a material conditional is true, and its consequent is also true, then its antecedent must be true. While such reasoning is not epistemically rational, it is nonetheless normal for humans to reason in this way, at least in most domains.[[4]](#footnote-4) Perhaps it is not merely normal, but natural – indeed, perhaps there is even some hard-wired feature of our reasoning competence that determines that we reason in this way, at least in the absence of any correctives.

 So there is a perfectly good way to flesh out case (v) on which the psychologist’s “should”, though it is the “should” of proper functioning, and though it applies to the subject’s credal states, is nonetheless not an epistemic ought. If we want to identify the epistemic “ought” as a proper function “ought” we must say more than Wolterstorff says about the proper function that determines the epistemic “ought”.

**II. Feldman on Oughts of Good Credal Performance**

In an essay critical of Wolterstorff’s discussion of epistemic oughts, Richard Feldman anticipates the point that we made above regarding Wolterstorff’s example (v).[[5]](#footnote-5) Perhaps then Feldman’s own discussion of epistemic oughts will help us to specify the distinctive kind of “ought” that is epistemic.

 Feldman takes the epistemic “ought” to fall into a general category of “ought” that he calls “role ‘ought’s”. Here is what he says:

“There are oughts that result from one’s playing a certain role or having a certain position. Teachers ought to explain things clearly. Parents ought to take care of their kids. Cyclists ought to move in various ways. Incompetent teachers, incapable parents, and untrained cyclists may be unable to do what they ought to do. Similarly, I’d say, forming beliefs is something people do. That is, we form beliefs in response to our experiences in the world. Anyone engaged in this activity ought to do it right. …I suggest that epistemic oughts are of this sort – they describe the right way to play a certain role. … these oughts are not based on what’s normal or expected. They are based on what’s good performance.”

 “Furthermore, it is plausible to say that the role of a believer is not one that we have any real choice about taking on. It differs in this way from the other roles mentioned. It is our plight to be believers. We ought to do it right. It doesn’t matter that in some cases we are unable to do so.”[[6]](#footnote-6)

Just as Wolterstorff was right to claim that epistemic “ought”s concern proper functions, and not obligations, so too Feldman is right to claim that epistemic “ought”s concern “good performance” in the role of a believer. Furthermore, Feldman’s claim helps to fill an explanatory gap in Wolterstorff’s account: while it might have been natural for the experimental subject in case (vb) to believe that the small object was in the left dish – while such a belief might have been the result of the proper operation of her native cognitive capacities – such a belief would not have constituted “good performance” in her role as a believer. Good performance is not simply the performance that results from any proper functioning of any of our capacities, since those capacities are designed to solve evolutionary problems effectively. At least some of those capacities might not be designed to solve reasoning problems correctly.

 But while Feldman’s account helps us better to understand the epistemic “ought”, it leaves us with a question. There are plenty of roles that we have no choice about occupying, and there are standards of good performance for many of those roles, but nothing follows about whether or not we ought to comply with those standards of good performance. If you are born into slavery, then you have no choice about being a slave. And presumably there are standards of good performance for slaves: a good slave is one who does not try their master’s patience, who does what she is told without complaint, who works whenever her work is needed, and so on. But from the fact that you have no choice about being a slave, and that there are standards of good performance for slaves, it does not follow that you ought to satisfy those standards. So why would it follow, from the fact that you have no choice about being a believer, and that there are standards of good performance for believers, that you ought to satisfy those standards? Without an answer to this question, Feldman’s account of the epistemic “ought” as a role “ought” fails to provide an explanatorily adequate account of the epistemic “ought”. Feldman is right to claim that we have no choice about being believers, and he is also right to claim that the epistemic “ought” depends on standards of good performance for believers, and he is also right to claim that the epistemic “ought” applies to us by virtue of our being believers. Indeed, I will concede even more than this: Feldman is also right to claim that the first two of these facts are *in some way* (that I will not specify until section IV below) involved in grounding the third. But Feldman fails to explain how this grounding obtains – he does not help us to understand what it is about our being believers, and about the standards of good performance for believers, that makes it the case that we (believers) ought to comply with those standards. Why is it that people born to be believers ought to satisfy standards of goodness for believing, even though it’s not the case that people born into slavery ought to satisfy standards of goodness for a slave?

**III. Kornblith on Regulative Ideals of Credence**

Our criticism of Feldman’s account of the epistemic “ought” was anticipated by Hilary Kornblith, in an article critical of Feldman’s account of the epistemic “ought”.[[7]](#footnote-7) Perhaps, then, we can develop an adequate account of the epistemic “ought” – an account that explains why we ought to satisfy the standards of good performance for believers – by supplementing the true claims that Wolterstorff and Feldman make with some additional insights from Kornblith. Here is what Kornblith says:

“…much of what [Feldman] says about role oughts offers important illumination on the subject of epistemic oughts. Thus, when Feldman argues that standards of good performance in a role must in some ways take account of human capacities, and yet, at the same time, ‘it is not the case that the existence of those standards implies that individuals must have basic or non-voluntary control of that behavior that is judged by those standards,’ I believe that what Feldman says applies not only to standards of good performance in roles, but to ideals in general. An appropriate human ideal must in some ways be responsive to human capacities. Ideals are meant to play some role in guiding action, and an ideal that took no account of human limitations would thereby lose its capacity to play a constructive action-guiding role. At the same time, our ideals cannot be so closely tied to what particular individuals are capable of that we fail to recognize that some individuals at some times are incapable of performing in ideal ways.”[[8]](#footnote-8)

I think Kornblith is right to think of epistemic oughts as ideals of cognitive performance that play some role in guiding that performance. Because they are *ideals* of cognitive performance, it cannot be trivial to satisfy them. But because they *guide* cognitive performance, it also cannot be impossible to satisfy them. Epistemic oughts are ideals of cognitive performance that are, to put it crudely, neither too easy nor too hard.

Unfortunately, if we leave it at that, we face a problem. Consider the following three normative propositions:

1. Your confidence in a proposition ought to be proportioned to the degree to which your evidence supports that proposition.
2. Your confidence in a proposition ought to be proportioned to the degree to which you reasonably take your evidence to support that proposition.
3. On weekdays, your confidence in a proposition ought to be proportioned to the degree to which your evidence supports that proposition; on weekends, your confidence in a proposition ought to be proportioned to the degree to which you reasonably take your evidence to support that proposition.

All three of (a), (b), and (c) describe ideals of cognitive performance that are neither trivial nor impossible to satisfy. Some philosophers believe, quite plausibly, that (a) is a norm of cognitive performance for us. Other philosophers believe, also quite plausible, that (b) is a norm of cognitive performance for us. But nobody believes, and it would be utterly implausible to believe, that (c) is a norm of cognitive performance for us. Why is this? If (a) could plausibly be regarded as a norm of cognitive performance, and (b) could plausibly be regarded as a norm of cognitive performance, then why not (c) as well, which simply combines (a) for some days of the week with (b) for other days of the week?

 The answer to this question seems obvious: it is just because norms of cognitive performance cannot advert to factors irrelevant to the evaluation of such performance, e.g., what day of the week it is. But this answer simply raises another question: what makes the issue of what day of the week it is any more irrelevant to the evaluation of cognitive performance than any other factor? What determines which factors are relevant to the evaluation of cognitive performance, and which factors are irrelevant? I am not here asking an epistemic question about how we figure out which factors are relevant (though that is an interesting epistemic question). Rather, I am asking a metaphysical question, a question about what fixes it that certain factors are relevant to the evaluation of cognitive performance. In the paper that I’ve discussed, Kornblith does nothing to answer this question. But a satisfactory account of the epistemic ought needs to answer this question.

 You might think that the answer to this question is clear enough. The epistemic norms governing cognitive performance, you might think, are norms our compliance with which promotes the attainment of some distinctively epistemic goal (e.g., the maximization of accuracy in our belief-system, and the minimization of inaccuracy). Tailoring your cognitive performance differently to different days of the week cannot help you to satisfy any such goal, and so cannot be epistemically mandatory. But while it is true that tailoring your cognitive performance differently to different days of the week cannot help you to satisfy any such goal, and while it is also true that tailoring your cognitive performance differently to different days of the week cannot be epistemically mandatory, it is not clear how the former fact can explain the latter. The former fact could explain the latter only if epistemic mandates are determined by what helps us to achieve some distinctively epistemic goal. But if that metaphysical thesis were true, then what would make it mandatory for us to comply with either norm (a) or (b) above? Would compliance with (a) or (b) promote the level of accuracy, or diminish the level of inaccuracy, in our belief-system? Is there any empirical evidence that indicates that proportioning your confidence to the evidence leads you to the truth more often than not doing so? I don’t know of any such evidence, and indeed I have seen some evidence to the contrary.[[9]](#footnote-9) But, even if this were not the case, and there were evidence to the effect that proportioning your confidence to the evidence leads you to the truth more often than not doing so, why ought we to follow that very evidence in proportioning our confidence in the proposition that proportioning your confidence to the evidence leads you to the truth more often than not doing so? There is no way of answering this question without begging the question. Consequently, we have no non-question-begging reason to believe that following (a) or (b) would promote the epistemic goal (whatever precisely that goal may be) better than following (c) would do so.[[10]](#footnote-10)

 In short, while Kornblith is right to regard epistemic oughts as guiding ideals of cognitive performance, he tells us too little about what factors determine the content of these ideals.

**IV. A more complete account of the epistemic ought**

So let’s review what we’ve learned so far about epistemic oughts. As the authors we’ve discussed have claimed, and as we are prepared to accept, the epistemic ought is a particular kind of proper function ought; a kind of ought that is determined by standards of good performance for believers, and so that applies to us by virtue of our being believers; and a particular kind of guiding ideal of cognitive performance. But we have not yet succeeded in explaining more specifically what kind of proper function ought they are, how our being believers makes it the case that we ought to satisfy standards of good performance for believers, and what fixes which factors are relevant to determining how we ought to conduct ourselves cognitively. In the present section, I offer an account of the epistemic ought that fills these explanatory gaps. The basic idea of the account is to explain the epistemic “ought” as a relation that obtains between individual credal agents, on the one hand, and a natural kind of which they are all individuals, on the other. In order to spell out this account, I need to begin with a few remarks about biological species, and the individual organisms that belong to those species.

A biological species is a particular kind of homeostatic system – i.e., a system that operates to maintain itself in a particular kind of state. A particular individual belongs to that species just in case the following biconditional is true of that individual: it possesses (at least in some form, be it immature, disordered, decayed, or otherwise) the capacities that are engaged in the operations of the species if and only if it ought to exercise those capacities to maintain itself in the particular kind of state characteristic of the species. Let’s call this latter the “goal state” of the species, and of individuals of that species. Goal states will differ, of course, for different kinds of homeostatic systems – both biological and non-biological. The goal states for antelopes differ from the goal states for lobsters, which differ from the goal states for elm trees, which differ from the goal states for corporations. Different individuals of the same kind of homeostatic system share the same goal state (that is at least part of what makes them individuals of the same type), but they will typically differ in the extent to which the possess the capacities necessary to realize that goal state. If individuals of a particular kind K have a goal state G, then there is a proper function sense of “ought” on which it is true that that each individual K “ought” to achieve G if and only if it can, and so “ought” to perform in various ways and occupy various states that are involved in achieving G if and only if it can. If operation O is one of the operations involved in achieving G, then each individual K ought to O in order to achieve G if and only if it can.

Here are some examples of this kind of proper function “ought”:

The tiger nurses its young for about three to six months, to give the cubs time to develop their teeth; this particular (normal maternal) tiger ought to nurse its young for at least another month.

The caterpillar eats host plants like anise, parsley, and carrot; this particular (normal mature) caterpillar ought to be eating anise, parsley, carrot, or other host plants – don’t keep feeding it cactus.

Bermudagrass grows under high pine tree shade; this particular patch of (normal) Bermudagrass ought to have more exposure to sunlight than is available when you pitch the tent over it.

Each of the proper function oughts mentioned above applies to capable individuals of a kind K by virtue of the goal state of individuals of that kind, a goal state G that they have by virtue of being individuals of a kind that operates so as to maintain itself in state G. The individual member of the species ought to realize that goal state if and only if it has the capacity to do so.

Wolterstorff is right to claim that epistemic oughts are proper function oughts. I now want to add that the kind to which epistemic oughts apply is the kind of creature that has as its goal state the state of *operating rationally*. Different individuals of this kind – let’s call them “rational subjects” – will differ in the extent to which they possess the capacities necessary to achieve this goal state. At least some will not have those capacities, and so will not be able to achieve this goal state. Despite this variation, though, it is nonetheless true that the rational subject operates rationally, and so individual rational subjects *ought* to operate rationally if and only if they can. For instance:

The rational subject does not simultaneously believe that p is true and believe that not-p is true; a particular capable rational subject ought not to believe that p is true and also believe that not-p is true.

The rational subject’s confidence in the truth of p is proportional to the degree of support that her total evidence provides p; a particular capable rational subject’s confidence in the truth of p ought to be proportional to the degree of support that her total evidence provides p.

As I noted above, individual homeostatic systems can operate to maintain themselves in a particular state by means of various mechanisms. But the mechanisms by means of which they operate can themselves have proper functions, and in some environments the proper function of the mechanism can conflict with the proper function of the individual system that operates by means of that mechanism. Consider, for instance, the Sphex Wasp that Daniel Dennett has made famous (for the sake of making an orthogonal point about agency).[[11]](#footnote-11) Here is the behavioral description quoted from Wooldridge:

“When the time comes for egg laying, the wasp *Sphex* builds a burrow for the purpose and seeks out a cricket which she stings in such a way as to paralyze but not kill it. She drags the cricket into the burrow, lays her eggs alongside, closes the burrow, then flies away, never to return. In due course, the eggs hatch and the wasp grubs feed off the paralyzed cricket, which has not decayed, having been kept in the wasp equivalent of deep freeze. …the Wasp’s routine is to bring the paralyzed cricket to the burrow, leave it on the threshold, go inside to see that all is well, emerge, and then drag the cricket in. If the cricket is moved a few inches away while the wasp is inside making her preliminary inspection, the wasp, on emerging from the burrow, will bring the cricket back to the threshold, but not inside, and will then repeat the preparatory procedure of entering the burrow to see that everything is all right. If again the cricket is removed a few inches while the wasp is inside, once again she will move the cricket up to the threshold and re-enter the burrow for a final check. The wasp never thinks of pulling the cricket straight in. One one occasion, this procedure was repeated forty times, always with the same result.”[[12]](#footnote-12)

The Sphex wasp feeds its young by dragging a paralyzed cricket into a suitable burrow; so an individual capable Sphex wasp *ought* to feed its young by dragging a paralyzed cricket into a suitable burrow. But the mechanism by means of which the Sphex performs this operation is a mechanism that is designed to insure that the wasp checks that the burrow is suitable before dragging the paralyzed cricket from threshold to burrow; and so, on a particular occasion, the mechanism that operates within a particular wasp *ought* to insure that the wasp checks that the burrow is suitable before dragging the paralyzed cricket from threshold to burrow. In some situations, however, the two aforementioned oughts come into conflict: in particular, when the paralyzed cricket is moved away from the threshold while the wasp is checking the burrow, the proper function ought to which the mechanism is subject will conflict with the proper function ought to which the wasp itself is subject. Thankfully for the Sphex wasp, such situations do not arise frequently in its habitat.

Just as the proper function ought governing a mechanism can, in some situations, conflict with the proper function ought governing the homeostatic system that operates by means of that mechanism, so too the proper function ought governing a cognitive mechanism can, in some situations, conflict with the proper function ought governing the rational subject. For instance, if the machinery by means of which we process conditionals naturally leads us to reason incorrectly about conditionals when performing the Wason Selection Task, then this would be a case in which the rational ought would conflict with the proper function ought that governs that conditional-processing machinery. Rational subjects that operate by means of such machinery are in luck, then, if their well-being does not often depend upon their ability to reason well about material conditionals.

 I have described a particular kind of homeostatic system – the rational subject – as a system that operates rationally, and so as a kind the individuals of which ought to operate rationally if and only if they can. Of course, I have said nothing so far about whether there are any individuals of that kind, and, if there are, who they are. But, if there really is a homeostatic system of the kind that I’ve described, and if it is a biological kind, then the individuals that are members of that kind will be essentially members of that kind. That much is true of the individuals of any biological kind of homeostatic system: rabbits are essentially rabbits, lobsters are essentially lobsters, and crabgrass is essentially crabgrass. So, if there is such a kind of homeostatic system as the rational subject, and it is a biological kind, then individual rational subjects will be essentially rational subjects. And so the epistemic oughts that apply to them will apply to them not simply by virtue of a role that they occupy (even necessarily), but by virtue of their essence. The role oughts that apply to born slaves are, in this respect, unlike the epistemic oughts that apply to rational subjects. And we can notice the difference if we compare the oughts listed above as examples of oughts that apply to organisms by virtue of their species to oughts that can apply to those same organisms by virtue of some role into which they might be cast (even as a result of their birth):

The tiger nurses its young for about three to six months, to give the cubs time to develop their teeth; this particular (normal maternal) tiger ought to nurse its young for at least another month.

Compare the above to: this particular tiger is playing a role in the movie that I’m filming now; he ought to gain about 60 pounds in order to play the role convincingly. (And I bred him and raised him simply in order to have a suitable actor for the role.)

The caterpillar eats host plants like anise, parsley, and carrot; this particular (normal mature) caterpillar ought to be eating anise, parsley, carrot, or other host plants – don’t keep feeding it cactus.

Compare the above to: my housecat likes to eat caterpillars; this particular caterpillar ought to get a little closer so that my housecat can get at it. (And I bred this caterpillar simply in order that my cat might eat it.)

Bermudagrass grows under high pine tree shade; this particular patch of (normal) Bermudagrass ought to have more exposure to sunlight than is available when you pitch the tent over it.

Compare the above to: having a lawn covered with dense Bermudagrass increases your property value; this particular patch of Bermudagrass in my front yard ought to be a bit more densely packed. (And that patch exists only because I grew it there to raise my property value.)

In each of the pairs above, there is a clear difference between the normative force of the ought that applies to the individual organism by virtue of its species and the ought that applies to it by virtue of some role that it occupies, perhaps even necessarily. While Feldman was right to claim that epistemic oughts apply to believers by virtue of their being believers (or, more to the point I would say, rational systems), he was wrong to regard such oughts as role oughts. Such oughts do not apply to rational subjects by virtue of some role that they might occupy, even necessarily: they apply to rational subjects by virtue of their essence.

 Individual rational subjects who can do so *ought to* think and act in just the way that the rational subject *does* think and act. Since the rational subject is ideally rational, individual rational subjects who can do so ought to think and act in the ways that an ideally rational subject thinks and acts. This implies that epistemic oughts are, as Kornblith says, ideals. If these ideals are to help guide our cognitive performance, it must be neither trivial nor impossible to attain them. The avoidance of triviality and impossibly places some constraint on the content of the epistemic oughts to which we are subject. But, as the examples of (a), (b), and (c) above illustrated, it does not place enough of a constraint on that content to rule out all sorts of arbitrary norms like (c). So what can rule out arbitrary norms like (c)?

 To see how we should answer this question, consider an analogous question. Which of the following could be a norm for the circulatory system:

(a’) Your heart should pump blood at a rate sufficient to nourish and oxygenate your cells as quickly as they need to be nourished and oxygenated.

(b’)Your heart should pump blood at a rate of 50 – 70 beats per minute (depending upon age).

(c’) On weekdays, your heart should pump blood at a rate sufficient to nourish and oxygenate your cells as quickly as they need to be nourished and oxygenated; on weekends, your heart should pump blood at a rate of 50 – 70 beats per minute (depending upon age).

Here again, while (a’) and (b’) are plausible candidates for norms governing the circulatory system, (c’) is not. Why is that? It is because the goal state that the circulatory system operates to achieve does not vary with the day of the week. Perhaps the circulatory system does not successfully achieve the goal state it operates to achieve. Perhaps the circulatory system does, in fact, work slightly differently on weekdays and on weekends: perhaps it is more efficient some days of the week than others. But these claims don’t imply that what goal state the circulatory system is operating *in order to achieve* varies with the day of the week. It is a reasonable assumption – though of course an empirically defeasible one – that what goal state the circulatory system is operating in order to achieve is invariant with the day of the week.

 I propose that we answer our original question about (a), (b), and (c) in analogous manner. The goal state that the rational subject operates to achieve does not vary with the day of the week. Perhaps the rational subject does not successfully achieve the goal state it operates to achieve. Perhaps the rational subject does, in fact, work slightly differently on weekdays and on weekends: perhaps it is more efficient some days of the week than others. But these claims don’t imply that what goal state the rational subject is operating in order to achieve varies with the day of the week. It is a reasonable assumption – though an empirically defeasible one – that what goal state the circulatory system is operating in order to achieve is invariant with the day of the week.

 I have given an account of the epistemic ought on which it is a particular kind of proper function ought, a particular kind of ought that applies to us by virtue of our being believers, and a particular kind of regulative ideal. This account seeks to fill the explanatory gaps left by the insights of Wolterstorff, Feldman, and Kornblith. But the key to my account is the idea that the epistemic “ought” is a relation between an individual rational subject, on the one hand, and the kind of homeostatic system of which it is essentially an individual, on the other. My account rests on a highly substantive assumption, namely, that there is a particular biological kind of homeostatic system, the individuals of which operate so as to achieve the goal state of *operating rationally*. I leave it open that there are many such kinds: I leave it open, say, that elephants, tigers, earthworms, and roses are all unbeknownst to us, rational subjects who reason and communicate in ways presently undetectable by us. I leave it an open question which particular biological species (or genera) are essentially rational subjects. I have also, for now, left it an open epistemic question precisely how we might go about finding an answer to the preceding question. To address that question would require addressing the larger questions: how do we figure out what goal state is essential to a particular kind of homeostatic system, and when an individual organism has that goal state?

**Conclusion: Back to “Ought” and “Can”**

 We began by considering whether, in epistemology, “ought” implies “can”. Then we offered an account of the epistemic “ought”, an account that builds on the insights of earlier views while filling the explanatory lacunae left by those views. But what does our account tell us about the question with which we began: whether, in epistemology, “ought” implies “can”?

 On our account, the epistemic “ought” marks a relation between an individual epistemic subject and the operations that the epistemic subject performs in the endeavor to achieve rationality: if kind K performs operation O in order to achieve G, then each individual K who can do so *ought* to O in order to achieve G. But if this is how to understand the epistemic “ought”, it follows that a particular rational subject who can do so ought to O if and only the rational subject (that *type* of homeostatic system) *does* O. In other words, the epistemic “ought” applies to an individual organism only if (i) the corresponding “does” applies to the organism’s species, and (ii) the corresponding “can” applies to the individual organism itself. Thus, we can sum up our view in a slogan: the epistemic “ought” implies, and is implied by, “does” and “can”; what the kind *does* is just what the individuals of that type *ought to do* if and only if they *can*. Applying this general point to the case of rational subjects: what the rational subject does is just what individual rational subjects ought to do if and only if they can.

 Of course, not every member of a species possesses all the capacities that are exercised in the operation of that species: perhaps the individual possesses the capacity in an immature form, or in a disordered or damaged or degraded form, or simply lacks the capacity altogether. Perhaps it is true of such individuals that they ought to have those capacities: the blind cat ought to be able to see, but cannot; the three-legged dog ought to be able to run, but cannot. Even if this is so, however, it does not follow that disabled individuals ought to be able to do just what normally abled individuals ought to do: the cat ought to pounce on the mouse, but not if he is blind; the dog ought to run to fetch the ball, but not if she is lame. Similarly, to the extent that an individual rational subject possesses the capacities that are exercised in *operating rationally*, it is also true to that same extent that she ought to operate rationally. So, to put these pieces together: what makes a particular individual subject to the epistemic “ought” is that she is a normally capable rational subject. It is only by virtue of having the full complement of rational capacities that a creature is subject to the epistemic “ought”.

I conclude that the epistemic “ought” does imply “can”, but this very same “can” also implies “ought”.[[13]](#footnote-13)

1. Nicholas Wolterstorff, “Ought to Believe – Two Concepts” in *Practices of Belief*, edited by Terence Cuneo (Cambridge University Press, 2010): 62 – 85. [↑](#footnote-ref-1)
2. *Ibid*., 79. [↑](#footnote-ref-2)
3. Peter Wason, “Reasoning” in *New Horizons in Psychology*, edited by B.M. Foss (Hammondsworth, 1966): 135 – 151. [↑](#footnote-ref-3)
4. There is evidence that people do not generally make the same mistake when the task domain involves policing of behavior for compliance with social norms. See Leda Cosmides and John Tooby, “Cognitive Adaptations for Social Exchange” in *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by Jerome Barkow, Leda Cosmides, and John Tooby (Oxford University Press, 1992): 163 – 228. [↑](#footnote-ref-4)
5. Richard Feldman, “Voluntary Belief and Epistemic Evaluation” in *Knowledge, Truth and Duty: Essays on Epistemic Justification, Responsibility and Virtue*, edtied by Matthias Steup (Oxford University Press, 2001): 77 – 92. [↑](#footnote-ref-5)
6. *Ibid*., 87 – 8. [↑](#footnote-ref-6)
7. Hilary Kornblith, “Epistemic Obligation and the Possibility of Internalism” in *Virtue Epistemology: Essays on Epistemic Virtue and Responsibility*, ed. by Abrol Fairweather and Linda Zagzebski (Oxford University Press, 2001): 231 – 48. [↑](#footnote-ref-7)
8. *Ibid*., 237 – 8 [↑](#footnote-ref-8)
9. In their fascinating book, *Epistemology and the Psychology of Human Judgment* (Oxford University Press, 2005), Michael Bishop and J.D. Trout discuss evidence to the effect that, in a number of domains, human experts trying to proportion their beliefs to their evidence ended up getting far fewer true answers and far more false answers to questions in their domain of expertise than did software that weighted the relevant variables *randomly* in generating answers to those same questions. So, even if someone is not in possession of this evidence concerning relative accuracy, she would get to the truth much more often simply by accepting unquestioningly whatever answers the software generates, rather than by considering the evidence herself. [↑](#footnote-ref-9)
10. Incidentally, I am very skeptical that epistemic norms are determined consequentialistically at all. My skepticism can be summarily expressed by Selim Berker’s slogan that consequentlialism in epistemology “does not respect the separateness of propositions”. See Berker’s unpublished manuscript “Epistemic Teleology and the Separateness of Propositions”. [↑](#footnote-ref-10)
11. Daniel Dennett, *Elbow Room: The Varieties of Free Will Worth Wanting* (Bradford Books, 1984), 11. [↑](#footnote-ref-11)
12. Dean Wooldridge, *Machinery of the Brain* (McGraw-Hill, 1963), 82. [↑](#footnote-ref-12)
13. Thanks to David Copp, Abrol Fairweather, Doug Lavin, Eric Marcus, John Roberts, Nate Sharadin, and especially Geoff Sayre-McCord for helpful discussion of an earlier draft of this paper. [↑](#footnote-ref-13)