

# Consciousness and Conceptual Mastery: Reply to Torin Alter

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**Abstract:** Torin Alter attempts to rescue phenomenal concepts and the knowledge argument from the critique of Ball 2009 by appealing to conceptual mastery. I show that Alter's appeal fails, and describe general features of conceptual mastery that suggest that no such appeal could succeed.

In 'There Are No Phenomenal Concepts' (Ball 2009), I argued that there can be no concepts that can be possessed only by thinkers who have undergone certain sorts of phenomenal experiences. Even thinkers like Frank Jackson's Mary (Jackson 1982, 1986), the colour scientist who has never experienced colour, can possess the very same concepts of colour experiences as normal perceivers. I argued further that this undermines one popular strategy for resisting Jackson's knowledge argument against physicalism, but also undermines Jackson's argument itself.

Torin Alter (cite) is not convinced. Alter claims that even if there are no concepts that can be possessed only by those who have undergone certain experiences, there are concepts that can be *mastered* only by those who have undergone certain experiences, that such concepts can provide a good account of the epistemic situation of thinkers like Mary, and that they can be used to revive the knowledge argument.<sup>1</sup> But Alter is mistaken. I will argue that appealing to concept mastery cannot provide an account of Mary's situation and cannot save the knowledge argument. Moreover, I will argue that general features of the notion of conceptual mastery make Alter's strategy problematic. Fully mastering concepts (like fully mastering most skills) involves a diverse variety of knowledge, abilities, and dispositions, as well as links to the external environment. It is therefore difficult to draw general conclusions about thinkers who have not fully mastered a concept, since they may be lacking in any of these respects; and it is likewise difficult to pose informative explanations in terms of lack of mastery or gains in mastery, since in many cases, more specific information will be called for.

I will begin by explaining Alter's account of phenomenal concepts.

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<sup>1</sup>Alter's position is anticipated by Crimmins (1989). Crimmins distinguishes between having an idea (which is much like what Alter would call possessing a concept without mastery) and having a concept (which is much like what Alter would call mastering a concept), and argues that a blind person can have the idea of red but not the concept of red.

# 1 Alter on phenomenal concepts

Mary is raised from birth in a completely black-and-white environment. She has never experienced colour. But through black-and-white books and computer screens, she learns all of the physical facts about human colour vision. Jackson argued that despite all of this knowledge, there is something that Mary would not know: namely, what it is like to see red. This is something that she would learn only when she leaves the black-and-white room and sees red for the first time.

One natural account of Mary's case is that when Mary sees red for the first time, she gains a new concept of red or of experiences of red, a concept that (at least to a first approximation)<sup>2</sup> can be gained only by undergoing such experiences. This enables her to entertain new thoughts about red, thoughts she might express by utterances like, 'That's what it's like to see red! I never imagined it could be so wonderful!'

This strategy works only if there are concepts that Mary can come to possess only by experiencing red. According to one common usage, these are called 'phenomenal concepts'.<sup>3</sup> Alter concedes that there are no phenomenal concepts in this sense. He maintains, however, that the main insights of the phenomenal concept strategy can be preserved by appealing to concept *mastery*. Alter introduces the notion of concept mastery by way of examples: an expert chemist has mastery of the concept H<sub>2</sub>O, while person with a poor understanding of chemistry does not; Burge's Arthritis-man, who believes that he may have arthritis in his thigh, has not mastered the concept of arthritis, while the doctor who corrects his misunderstanding has. According to Alter, the phenomenal concept strategist is better served by maintaining that phenomenal concepts are those concepts that cannot be *mastered* by those who have not undergone relevant phenomenal experiences. In particular, Alter claims that this enables the phenomenal concept strategist to give an account of Mary's epistemic progress upon seeing red for the first time. Alter allows that when Mary sees red for the first time, she does not learn a new fact. Instead, Alter claims, she gains mastery of a concept of red. Her epistemic progress consists in this gain in mastery. (CITE)

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<sup>2</sup>'To a first approximation' because there are counterexamples to the principle baldly stated: e.g., Hume's missing shade of blue. For discussion of how to formulate the relevant notion precisely, see Ball 2009, Sect. 1.2.

<sup>3</sup>For this usage, see Ball 2009, pp. 938–9, and the works cited therein.

## 2 Mastery, discovery, and learning

Alter's justification for the claim that gaining conceptual mastery can explain Mary's situation rests on an analogy with another case. Alter imagines a pre-Socratic philosopher being told by a source he knows to be trustworthy that matter is energy, without being taught anything else about modern physics. Alter claims that even though this philosopher might come to know on testimonial grounds that matter is energy, she would not have full mastery of the concepts involved in this knowledge. When he learns more physics, Alter claims, he gains full mastery of these concepts. Since this is a sort of epistemic progress, Alter concludes that what Mary learns when she sees red for the first time can also be explained in terms of gaining conceptual mastery.

This case is crucial to Alter's view, so it is worth considering it in some detail. Before he learns the relevant physics, the pre-Socratic is ignorant of many relevant propositions. His gaining mastery of the concepts involved in the knowledge that matter is energy consists in—or at least, is very closely related to—his gaining knowledge of the truths of physics. So in gaining mastery of the relevant concepts, he will learn many things, and will make many discoveries. Most of these discoveries will consist of coming to know facts that he did not know before. In this respect, the case is disanalogous to Mary, since (Alter grants) Mary does not come to know new facts. Any discoveries that the pre-Socratic makes in this way teach us nothing about Mary. What Alter needs to claim is that the pre-Socratic also makes an additional discovery, a discovery of something that he knew all along: he knew all along that matter is energy, but he discovers that matter is energy. This discovery consists in his gaining full mastery of the concepts involved in this knowledge.

I do not find the idea that one can discover what one already knows plausible.<sup>4</sup> For example, consider Arthritis-man's belief that arthritis is painful. Before he is corrected by the doctor, he lacks mastery of the concept of arthritis. But surely it would be very strange to claim that he discovers that arthritis is painful. Or consider Hilary Putnam, who knew nothing of beeches and elms beyond the fact that they are types of tree. I take it that Alter would regard Putnam as not having mastery of the concept of an elm. But surely Putnam could not discover that elms are trees, even if he took a botany class and thus gained mastery of the concept of an elm. The claim that Mary knew the relevant facts all along, but nonetheless discovered them, is similarly implausible.

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<sup>4</sup>Perhaps there are cases involving repressed memories and the like, but these are obviously irrelevant.

Moreover, there are further dissimilarities between Mary and the prototypical cases of failure to master a concept. It is natural to describe Mary not just as making a discovery, but as *learning* what it is like to see red. But surely Arthritis-man does not learn that arthritis is painful, and Putnam does not learn that elms are trees. Similarly, it is natural for Mary to say things like, ‘I never knew what it is like to see red, but now I know’.<sup>5</sup> But it would be bizarre for the pre-Socratic to say, ‘I never knew that matter is energy, but now I know’. After all, he did know all along! And it would be even worse for Arthritis-man to say, ‘I never knew that arthritis is a disease’ or for Putnam to say, ‘I never knew that beeches are trees’.

Thus appealing to analogies with cases like the pre-Socratic and Arthritis-man is not enough to provide an account of what happens to Mary. Facts about conceptual mastery do not deliver a new strategy for explaining Mary’s plight.

### 3 Mastery and deducibility

Alter claims a further virtue for his account: that his view of phenomenal concepts enables the dualist to rescue one version of Jackson’s knowledge argument against physicalism. One of Jackson’s observations is that Mary cannot deduce the truths about what it is like to see red from the physical facts on the basis of apriori reasoning (Jackson 1995; see also Chalmers 1996, 2004). If she could, then she could come to know what it is like to see red. Jackson argued that ontological reduction requires apriori deducibility, so that the truths about consciousness are nothing over and above the physical truths only if the truths about consciousness are deducible from the physical truths (Chalmers and Jackson 2001, Jackson 1998).<sup>6</sup> Mary’s inability to perform this deduction suggests that it cannot be performed, and hence that physicalism is false.

On Alter’s view, Mary knows all of the facts even in her room. Her epistemic deficit is a matter of her failure to master certain concepts. Given this view, it seems that Jackson’s version of the argument will not go through. Jackson’s justification for the claim that there are truths that cannot be deduced from the physical truths is that there are truths that

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<sup>5</sup>I am not insisting that Mary would be speaking truly. One attractive strategy for the physicalist is to deny that there is anything that Mary does not know in her room. The point is that the fact that this reaction seems so natural needs to be explained. There is no analogous need for explanation in the pre-Socratic case.

<sup>6</sup>Needless to say, the claim that ontological reduction requires apriori deducibility is very controversial. I grant it for the sake of argument.

Mary cannot know. If Mary knows all of the facts, the case gives no reason to think that there is anything that she could not deduce.<sup>7</sup>

Nonetheless, Alter argues that the notion of conceptual mastery can revive the apriori deducibility considerations. Alter considers the case of a person who has not mastered the concept of a prime number. He writes, ‘Such a person will not be in a position to deduce that there are infinitely many prime numbers, even if her reasoning capacity were in all other respects ideal. It does not follow that it is not a priori that there are infinitely many prime numbers.’ Alter concludes on this basis that ‘concept mastery is tied to apriority in a way that concept possession is not.’ In regard to the knowledge argument, he writes, ‘The inference from epistemic to metaphysical claims that the knowledge argument involves is complex and controversial, but it is not a non-starter. Yet it would be a non-starter if we construed Marys progress in terms of her gaining mere [knowledge without conceptual mastery] instead of [knowledge with conceptual mastery].’ (CITE)

Alter is not explicit as to exactly how his new version of the argument is supposed to go. I can think of two possibilities, both of which involve revisions of Jackson’s crucial premiss linking epistemic and metaphysical claims. Jackson original idea can be stated in the following way:

**Apriori Deducibility (AD)** The A truths are nothing ontologically over and above the B truths only if: if an ideal reasoner knows the B truths, then she can come to know the A truths on the basis of apriori reasoning.

Suppose ‘know[ing] the A truths’ is interpreted so as to allow knowledge without conceptual mastery. Then taking Alter’s ‘prime number’ case as inspiration, we can argue against (AD) as follows. Imagine a person who is under the misconception that arthritis can occur only in some joints but not in others. For example, she might think that arthritis can occur in the ankles, knees, and fingers, but that it is a matter of something like definition or conceptual truth that arthritis cannot occur in the hip joints. Uncontroversially, the truths about arthritis are nothing ontologically over and above the microphysical truths about joints. But such a thinker might be in no position to come to know the truths about arthritis on the basis of apriori reasoning from the microphysical truths about joints. In particular, she is in no position to know the truths about arthritis in the hip joints in this way.

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<sup>7</sup>Of course, there may be other reasons to think that such apriori deductions are impossible (see e.g. Levine 1983). The point is just that the Mary case would give no additional support to this claim.

Clearly, Alter wants to reject (AD) under this interpretation. One way of interpreting him is as proposing to replace (AD) with something like the following:

**Apriori Deducibility - Mastery (AD-M)** The A truths are nothing ontologically over and above the B truths only if: if an ideal reasoner has mastery of all the concepts involved in entertaining the A truths and the B truths, then she can come to know the A truths on the basis of apriori reasoning from knowledge of the B truths.

(AD-M) is an attractive way to capture the thought behind (AD) while avoiding the ‘arthritis’ case. Unfortunately for the dualist, however, (AD-M) does not give the materials to mount a new knowledge argument, given Alter’s view. The knowledge argument is supposed to give us a reason to deny the right-hand side of the conditional (where the A truths are the mental truths, and the B truths are the microphysical truths <sup>8</sup>), and hence to infer the falsity of the left-hand side. But on Alter’s view, Mary (in her room) does not have mastery of all of the relevant concepts. So she can give us no reason to think that the right-hand side of the conditional is false.

What Alter would need in order to engage with the Mary case is a principle like the following:

**Apriori Deducibility - Conclusion Mastery (AD-CM)** The A truths are nothing ontologically over and above the B truths only if: if an ideal reasoner knows the B truths, then she can come to know the A truths, and to master the concepts involved in this knowledge, on the basis of apriori reasoning from knowledge of the B truths.

(AD-CM) would match up well with the Mary case, given Alter’s view. On Alter’s view, Mary (in her room) cannot know the phenomenal truths with conceptual mastery, so *a fortiori* she cannot know them with mastery on the basis of apriori reasoning from the microphysical truths. Given (AD-CM), it would follow that it is not the case that the mental truths are nothing over and above the microphysical truths, and hence that dualism is true.

Unfortunately for the dualist, (AD-CM) is problematic for the same reasons as (AD). If Arthritis-man cannot deduce the truths about arthritis from the microphysical truths about joints at all, then he cannot deduce them and thereby gain full mastery of the concept of arthritis. Moreover, (AD-CM) looks ad hoc and unmotivated. Suppose that Mary (in

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<sup>8</sup>I am setting aside various irrelevant complications; e.g., the B truths might also include indexical truths and a completeness (‘that’s all’) truth). See Chalmers and Jackson 2001 for discussion.

her room) could come to know the truths about consciousness by deducing them from the microphysical truths. Then it is plausible that Mary would be in possession of a reductive explanation of the truths about consciousness in terms of microphysics. But then it is very hard to see how the fact that Mary has not undergone certain experiences and so has failed to master certain concepts could reveal anything about ontological reduction.

## 4 Mastery as a motley

I do not think that conceptual mastery explains Mary's situation or revives the knowledge argument. Nonetheless, Alter is right that it is plausible that there is some sense in which Mary has not mastered the concept of red. But what exactly does this mean? Alter does not attempt to give a definition or even a detailed description of the notion of conceptual mastery; our only grasp on the notion comes via his examples. In order to get a better grip on the notion of conceptual mastery, it will be useful to compare other sorts of mastery: for example, the sort of musical mastery that a virtuoso pianist exercises in playing her instrument. Someone who had fully mastered the piano would possess a variety of different sorts of knowledge and skills. She would have excellent technique, including speed and precision in her playing. She would have excellent musical sense, and an ability meaningfully to interpret the works of the composers she plays. (Knowledge of the history of music may be useful here.) She would be able to interact with other musicians. She would be able to improvise, which would involve at least implicit knowledge of music theory. And so forth.

Imperfect musicians—even those with a relatively high level of mastery—can be lacking in any or all of these respects. For example, some pianists have an excellent ability to interpret music, filling passages with feeling, while lacking the technical ability to play the most difficult works. Others are technically proficient but mechanical or wooden. Some can read music but have difficulty improvising, while others can improvise brilliantly without being able to read a note. Since the respects in which various musicians lack mastery are so different, it is difficult to make informative generalisations about pianists who lack perfect mastery, or about pianists who have some reasonable degree of mastery. (Some would benefit from practicing scales, while others would not. Some can play Beethoven's sonatas, while others cannot. Some could sit in on a jazz jam session, while others could not.) Moreover, in most contexts, appeals to lack of musical mastery have limited explanatory value. To say that a particular performance failed because the performer had not fully

mastered the piano leaves open most of the interesting questions about what went wrong.<sup>9</sup> Similarly, to say that a person's mastery of the piano has increased leaves open exactly how it has increased, and what she has done to improve. One person might have improved her finger speed by practicing scales, while another might have gained theoretical knowledge by studying music theory.

There is no single skill or bit of knowledge that makes for mastery of the piano. Mastery of concepts is similar. It can involve knowledge, including know-how and knowledge of what various experiences are like, as well as higher-order knowledge about one knows.<sup>10</sup> It may also involve knowledge of common beliefs or linguistic practices in one's community. It can involve abilities, including recognitional abilities,<sup>11</sup> abilities to make judgements about actual and counterfactual cases, as well as abilities of other sorts (mastery of the concept of addition involves the ability to add; mastery of the concept of red involves the ability to imagine seeing red things). It can involve various dispositions to reason appropriately. It can involve understanding. It can involve causal links to external objects or to community linguistic practices. As Alter emphasizes, it can involve having had experiences of certain types.<sup>12</sup> And no doubt there are many other possibilities.

Just as the heterogeneous nature of musical mastery makes it difficult to draw generalisations about pianists who lack mastery, the heterogeneous nature of conceptual mastery makes it difficult to draw generalisations about all thinkers who possess a particular concept but lack mastery of it.<sup>13</sup> In particular, it is a mistake to conclude that all those who lack

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<sup>9</sup>Indeed, if you ask about a performance that you know I have attended, and I reply, 'Let's just say that the performer had not fully mastered the instrument', this is naturally interpreted as a rather rude way of suggesting that the performance was utterly terrible. If what I am saying about mastery is correct, there is a natural Gricean explanation of this suggestion. If I have been to the performance, I have specific information about the performance, and you know that I do. By not giving this information, I am flouting the first maxim of quality ('Make your contribution as informative as is required' (Grice 1989, p. 26)). (A very similar explanation would apply if I had said, 'Let's just say that it wasn't good'.)

<sup>10</sup>The distinction between associating correct first-order beliefs with a concepts and having correct higher-order beliefs about one's first-order beliefs is emphasized by Higginbotham (1998).

<sup>11</sup>Peacocke (1998, p. 82) points to a distinction that he finds in Leibniz between *clear* ideas, that allow their possessors to recognize instances, and *distinct* ideas, that put their possessors in a position to give explicit, informative definitions.

<sup>12</sup>Alter suggests that mastery is linked to experience only with respect to a special class of concepts: presumably certain concepts of red, of pain, and so forth. But it seems to me that there is just as good a case for saying that someone who has heard of elm trees but never seen them lacks full mastery of the concept of an elm; similarly with the concepts of birds, bees, gold, and so forth. If this is right, it further undermines Alter's case for the idea that unique features of phenomenal concepts can explain facts about Mary or other phenomena associated with phenomenal consciousness.

<sup>13</sup>And just as it is difficult to draw generalisations about those who have achieved competence with the piano, or a reasonable level of pianistic mastery, it is difficult to draw generalisations about all thinkers who have competence with a particular concept, or a reasonable level of conceptual mastery. This competence might involve very different collections of knowledge, abilities, and so forth, in different cases. This is one source of the sort of counterexamples that Williamson (2003, 2006) gives to Boghossian's (2003) claims that



mastery of the concept of a prime number are not in a position to deduce that there are infinitely many primes. Consider, for example, a person who believes that one is prime. Such a person is subject to a conceptual error of roughly the same sort as Arthritis-man. But she would have no problem deducing that there are infinitely many primes. Her false belief is irrelevant to the deduction. The case of Mary is *prima facie* similar. If Mary has all of the concepts, all of the true beliefs, and all of the relevant dispositions to reason correctly, it is hard to see why she could not deduce whatever is deducible. Again, her lack of experience seems irrelevant.

Just as in many contexts appeals to lack of musical mastery or gains in musical mastery have little explanatory value, so too in many contexts appeals to lack of conceptual mastery or gains in conceptual mastery have little explanatory value. In particular, everyone should agree that a thinker like Mary is not ideally situated with respect to the concept of red. This uncontroversial fact leaves open all of the interesting questions about how Mary changes when she leaves her room. Does she gain new factual knowledge, as Jackson claimed? Does she gain new know-how or abilities, as Lewis (1996) conjectured? Does she gain some sort of objectual knowledge, as Conee (1994) and Tye (2009) claim? Or none of these? The claim that Mary gains conceptual mastery is silent on these issues; but these are the issues on which the knowledge argument turns.

## 5 Conclusion

I have defended three claims. First, Alter's analogies with cases like Arthritis-man and the pre-Socratic philosopher do not provide a satisfactory account of what happens to Mary when she leaves her room and sees red for the first time. Second, these analogies cannot revive a version of the knowledge argument based on a priori deducibility. Finally, conceptual mastery involves a diverse array of cognitive (and perhaps also non-cognitive) features, and correspondingly, we differ from perfect concept masters in many ways. The notion of a lack of full mastery is a catchall, a category that groups together a wide variety of phenomena. It therefore cannot bear the explanatory load that Alter requires.<sup>14</sup>

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competence with (e.g.) the concept of conjunction requires dispositions to accept instances of conjunction elimination. In Williamson's cases, a thinker's competence with her concepts is linked to her knowledge about and relations to community beliefs and linguistic usage, general reasoning abilities, and so forth, rather than in dispositions to accept particular inferences.

<sup>14</sup>My thanks to Yuri Cath for his helpful comments.

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