Fine-grained and coarse-grained knowledge in *Euthydemus* 293b7-d1: A response to MM McCabe.

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Abstract

I extend McCabe's distinction between perfective and imperfective learning and show how this addresses the Omniscience Sophism.

Keywords

Euthydemus, Sophism, Omniscience, Knowledge, Father, Relativity

Introduction

McCabe identifies a crucial ambiguity in the terms 'learns' and 'knows'. Such terms can be read as either 'perfective' or 'imperfective' (McCabe 2018, secs. 5–6). This is an aspect difference. The former indicates a settled state, the latter a directed process. McCabe uses this insight to show how Socrates can rebut the sophist's view of meaning, render compelling Socrates' self-refutation arguments, and explain the Socratic connections between learning, knowledge, and how one should live.

However, the *Euthydemus* wrestles with another logico-linguistic feature of 'knows' and 'learns': they are relative terms (*Euthydemus* 293b7-d1; Cf. *Parmenides*

134a1–b1). Just as a father is father of an offspring (*Euthydemus* 298b7–d9), so a knower knows the knowable. In the final section of the *Euthydemus*, Euthydemus offers the ‘Omniscience Sophism’, and the related, rather cheeky, ‘Father Sophisms’.

McCabe suggests that the Omniscience Sophism might be addressed by identifying an aspect ambiguity, but does not follow up her point in detail (McCabe 2018, sec. 7). In this response, I argue that McCabe’s instinct is good and that a relative term, such as ‘knowledgeable’, can be understood as having two senses. That distinction is between what I call ‘fine-grained’ and ‘coarse-grained’ senses of ‘knowledgeable’. I suggest that this distinction tracks McCabe’s aspect distinction between senses of ‘learns’ and best explains the fallacy committed in the Omniscience Sophism.

Aspects and Knowledge

There are two ways to understand a statement like ‘Socrates is knowledgeable’. On one reading, Socrates is knowledgeable because Socrates knows some specific thing, such as Pythagoras’ theorem. On this reading, Socrates’ knowledge is fine-grained because Socrates’ knowledge relates only to a specific object. On another reading, Socrates is knowledgeable because he has expertise in a general domain, such as geometry. On this reading, Socrates’ knowledge is coarse-grained because Socrates’ knowledge relates to a generic object, geometry. Knowledge of geometry, of course, is not maximally coarse-grained. If Socrates’ knowledge were maximally coarse-grained knowledge, Socrates’ knowledge would relate to an item as generic as the knowable.

McCabe briefly alludes to the Omniscience Sophism in her paper. When discussing cases of aspect ambiguity she says ‘perhaps the thing in question is a general property, such as being knowledgeable, and the change of aspect in the verb “learn” reflects differences in the ways and extents to which we possess the property “knowledgeable”’ (McCabe 2018, sec. 7). She then invites us to compare the sophists’ arguments at 293ff. The coarse-grained/fine-grained distinction tracks McCabe’s aspect distinction. If Socrates is knowledgeable in a coarse-grained way, his learning is complete, and he is in the settled state of being knowledgeable. For example, if Socrates has coarse-grained knowledge of geometry, he has the sort systematic expertise in geometry that arrives at the end of the learning process. But if Socrates is knowledgeable in a fine-grained way, he only knows certain bits of geometry, such as Pythagoras’ theorem. His learning is not complete. Fine-grained knowledge corresponds to imperfective learning while coarse-grained knowledge corresponds to perfective learning.¹

Ignoring the difference between fine-grained knowledge and coarse-grained knowledge leads to the Omniscience Sophisms. The sophists exploit the ambiguity in expressions like ‘Socrates is knowledgeable’ to argue that if Socrates knows anything, Socrates knows everything. Socrates tries to make the Sophists respect the fine-grained/coarse-grained distinction (*Euthydemus* 293b), without success.

¹ In an earlier draft of this reply, I mistakenly wrote that fine-grained knowledge relates to perfective learning and coarse-grained knowledge to imperfective learning. Thanks to MM for pointing out my error.

The Omniscience Sophism in the *Euthydemus*

The proof of my claim that Plato distinguishes fine-grained and coarse-grained senses ‘knowledgeable’ will be that it best explains the text and argument of the Omniscience Sophism. In particular, my distinction better accounts for the text than the traditional reading of the sophism as a formal fallacy, the *secundum quid*. We also need to look globally at this argument and the hints that the text provides to determine how Plato thinks these sophisms might be dealt with.²

The Omniscience Sophism (293b7-d1) occurs in the final ‘dialectical display’ section of the *Euthydemus*. Socrates has fallen into difficulty giving an account of the ‘knowledge we ought to have if we are going to spend the remainder of our lives in the right way’ (293a4–6). He asks the brothers for help with this question, and Euthydemus offers something better: to show that Socrates already has the knowledge he seeks, because he already knows everything! The key term in this sophism is ‘knowledge’, a term which Plato flags as a relative elsewhere (e.g. *Parmenides* 134a1–b1). As we will see, this is no accident. Euthydemus begins his demonstration this way:

T1 *Euthydemus* 293b7-c1.

Come then and answer me, he said: is there something that you know?

Oh yes, I said, many things, small ones at any rate.

² This is very much the method suggested by (McCabe 2005, 107–9).

That's enough, he said. Do you think that it is possible for some being not to be the very thing that it in fact is?³

No, by Zeus, not I!

After agreeing that he knows some small things, Socrates agrees that it is not possible that some thing is not the very thing that it is:

(EUT) For all x it is not possible that x is *what x is* and x is not *what x is*.⁴

Euthydemus formulates what looks like a version the principle of non-contradiction (PNC), but there is something odd about it. What Euthydemus formulates seems ambiguous between:

(EUT') For all x , it is not possible that (x is identical to x and x is not identical to x)

and

(EUT'') For all x and all F , it is not possible that (x is F and x is not F)

³ δοκεῖς οἷόν τέ τι τῶν ὄντων τοῦτο ὃ τυγχάνει ὄν, αὐτὸ τοῦτο μὴ εἶναι;

⁴ Elsewhere McCabe calls this the 'gross principle of non-contradiction' (McCabe 2005, 114).

The first of these is obviously true; the second is obviously false. EUT' truly asserts that a thing cannot be identical to itself and also not identical to itself: nothing can fail to be identical to itself, so EUT' is true. EUT'' falsely asserts that a thing cannot have a feature and lack that feature: a thing can have a feature in some respect and lack that feature in another respect. Maybe Euthydemus formulates the principle ambiguously on purpose. An interlocutor may endorse EUT thinking they are committed to the true EUT', but a sophist may argue as if the interlocutor is committed to the false EUT''.

Euthydemus has more tricks afoot. Applied to the case of being knowledgeable, EUT yields that it is not possible that someone is knowledgeable and not knowledgeable. But we can already see that, in the case of relatives, something fishy is going on. Plato is very clear that every relative has a correlative.⁵ Generally, Plato's discussions of relative-correlative pairs use a stable terminology. Knowledge (ἐπιστήμη) is a common example of a relative term for Plato, and knowledge always has a correlative. This makes sense, since knowledge is knowledge of some knowable thing.⁶ Given EUT, the knower is knowledgeable and so the knower knows something. But 'the knower knows something' is ambiguous. Is there something specific that the knower knows, say, Pythagoras'

⁵ For example: *Charmides* 167c–168c; *Parmenides* 133c–134a; *Republic* 438b–e; *Symposium* 199d–200a; *Theaetetus* 152a–c. Cf. Aristotle, *Categories* 6a36–8b24.

⁶ Cf. *Charmides* 167c; *Parmenides* 133a–134a; *Parmenides* 142a. Aristotle coins a term for the correlative of knowledge, 'knowable' (*Categories* 7), but Plato prefers natural language, even if it is not quite consistent. For further discussion of knowledge as a relative in Plato see my (Duncombe 2013).

theorem? Or does the knower just know something or other and it doesn't matter what?⁷ The former sense of 'the knower knows something' is the fine-grained sense, the latter the coarse-grained sense. The fine-grained sense of 'the knower knows something' foregrounds *what* the knower knows. The coarse-grained sense foregrounds the fact that the knower is knowledgeable.

But, just as the brothers exploit perfective/imperfective ambiguities, they exploit fine-grained/coarse-grained ambiguities, as we will now see.

(T2) *Euthydemus* 293c1-d1

Do you know something?

I do.

Therefore, you are knowledgeable (ἐπιστήμων), if you know?

Yes, about that actual thing at any rate (Πάνυ γε, τούτου γε αὐτοῦ).

It makes no difference: but isn't it necessary that you know everything, if you are knowledgeable?

By Zeus, I exclaimed, there are many other things that I don't know.

Then if you don't know something, you are not knowledgeable.

About that, at any rate, my friend, I said.

So are you less not-knowledgeable because of that? And just now you said that you are knowledgeable: and in this way it turns out that you both are the man who you are and again you are not the man who you are with regard to the same things at the same time (κατὰ τὰντὰ ἅμα).

⁷ This distinction is drawn by (Quine 1956).

In (T2) the sophist tries to catch Socrates in a dilemma:

1. Socrates knows something iff Socrates is knowledgeable.	[Premise]
2. Socrates knows something	[Premise]
3. Socrates does not know something	[Premise]
4. Socrates is knowledgeable	[MP on 1,2]
5. Socrates is not knowledgeable	[MP on 1,3]
6. Socrates is knowledgeable and not knowledgeable	[&-introduction 4,6]
7. So, Socrates is who he is <i>and</i> not who he is with regard to the same things at the same time.	[Violates EUT]

As I construe it, the argument starts with a biconditional (1). Socrates has an explicitly relational attribute, knowing something, just in case Socrates has an implicitly relational attribute, being knowledgeable. Socrates admits that knowing is an attribute of him, at (2), but struggles to get Euthydemus to acknowledge that he is knowledgeable only about some specific thing. Socrates has admitted that he knows in the fine-grained sense, and tries to insist that this commits him to being knowledgeable *only* in that sense and not *also* in the coarse-grained sense. But Euthydemus pushes this subtlety aside, which is evidence that the fine-grained/coarse-grained distinction could address the sophism.

Euthydemus then asks Socrates to admit that if Socrates is knowledgeable, Socrates knows everything. Socrates denies this, as there are some things Socrates does not know. Again, Socrates here seems to be concerned to take ‘knows’ in the fine-grained

sense. There are many specific things that Socrates does not know, as (3) asserts. Again, Euthydemus brushes aside the clarification. Again, this is evidence that the distinction could solve the sophism.

It is straightforward to get from these premises to the admission that Socrates is knowledgeable and not knowledgeable. But Euthydemus leaps to a surprising conclusion. Euthydemus concludes that Socrates is both who he is and a not who he is ‘with regard to the same thing at the same time’, which violates EUT. This is a further reason to think that the fine-grained/coarse-grained distinction is in play. Euthydemus tries to trap Socrates with EUT. One way out of the dilemma would be for Socrates to say that he is a knower in relation to something and not a knower in relation to another. This would be to opt for a fine-grained sense of ‘knower’. Socrates is a knower in relation to Pythagoras’ theorem, but not in relation to squaring the circle.

Euthydemus tries to close this escape route when he re-states EUT in the conclusion. The PNC, as Plato commonly formulates it, specifies that an item cannot have different properties (a) in the same respect (κατὰ ταῦτά) (b) at the same time (ἄμα) and (c) in relation to the same thing (πρὸς ταὐτόν). EUT as presented at 293c8–d1 is almost identical to the PNC presented at *Republic* 436b9–c2, except that one of the qualifiers is omitted in the Euthydemus version, namely the πρὸς ταὐτόν qualification.⁸

Without this qualification, Socrates cannot easily expose the fine-grained/coarse-grained ambiguity. Even if he were to respond that he is a knower in relation to Pythagoras’ theorem but not in relation to squaring the circle, he would still violate EUT. After all, Socrates admits that he has opposite features, being a knower and a non-

⁸ For further discussion of relatives in this passage, see my (Duncombe 2015).

knower, at the same time, and in the same respect. And with EUT formulated as it is, this is enough to show that he both is what he is and not what he is. Euthydemus concludes that Socrates both is the man he is and is not the man he is.

The fine-grained/coarse-grained distinction would, in fact, defuse the sophism. Armed with the distinction, we can see that the fallacy comes in a shift in meaning. (2) is true only when ‘knows’ is taken fine-grained. Socrates knows some specific thing; Socrates does not know the maximally generic thing. Since (4) derives from (2), (4) should also take ‘knowledgeable’ in a fine-grained way. But the conjunction of (4) and (5) is only problematic if ‘knowledgeable’ in (4) — and (5) — is taken in a coarse-grained way. Otherwise, Socrates could simply know Pythagoras’ theorem but not the proof that there are exactly five Platonic solids. If ‘knows’ is read consistently as fine-grained, the premises are true, but Socrates simply knows some things and does not know others: no contradiction there.

This reading is confirmed by Socrates’ reiteration and extension of Euthydemus’ argument. Even though this argument commits a fallacy, all that has been argued so far is that Socrates cannot be both a knower and not a knower, not that he is omniscient. Socrates sarcastically draws out that consequence at 239d:⁹

(T3) But how do I have the knowledge we were looking for? Since it is impossible both to be and not to be the same thing, if I know one thing I know absolutely everything — because I could not be knowledgeable (ἐπιστήμων) and not knowledgeable (ἀνεπιστήμων) at the same time — and since I know

⁹ (Sprage 1962, 23); (Hawtrey, 1981, 140–42); (Chance 1992, 133); (Jansen 2006, 3).

everything, I also have this knowledge. Is that what you mean, and is this your piece of wisdom? (*Euthydemus* 293d3-8. Trans Sprague, modified).

Here is a reconstruction of this argument:

1. It is impossible to be both the same thing and not that thing [Premise]
2. Socrates cannot be knowledgeable and not knowledgeable at the same time
[Instance of 1]
3. |Socrates is knowledgeable about x [Supposition]
4. |Socrates is knowledgeable [From 3]
5. |So, it is not the case that Socrates is not knowledgeable [From 4]
6. |So, there is nothing Socrates does not know [From 5]
7. If Socrates is knowledgeable (ἐπιστήμων), then Socrates knows everything
[conditional intro 3–6]
8. Socrates is knowledgeable (ἐπιστήμων) [Premise]
9. So, Socrates knows everything. [MP 7,8]

The argument fails to motivate its conclusion, for there are many people who know some things, but do not know everything, a point pursued at length (*Euthydemus* 294a–295a). The obvious solution would be to reject (7). It is just not true that if Socrates is knowledgeable, Socrates knows everything. However, there is some reasoning behind premise (7), which I have construed as a (3)–(6) above. If Socrates turns out not to know

some bit of knowledge, Socrates turns out to be not knowledgeable. So, if Socrates is knowledgeable, there is no bit of knowledge which Socrates lacks.

Socrates immediately identifies what is wrong with this argument: if Socrates knows something, Socrates need not be knowledgeable full stop. The moves from (3) to (4) and (5) to (6) are illicit. Many commentators claim that this is an instance of the *secundum quid* fallacy.¹⁰ That is, the fallacy arises when we take a qualified attribution to follow from an unqualified one, or an unqualified attribution to follow from a qualified one.

Alone, the *secundum quid* diagnosis is unsatisfactory. First, as McCabe has pointed out in earlier work, the sophism here was presented before any formal classifications of fallacies existed.¹¹ So, even though Aristotle originally identified the *secundum quid* fallacy at *Sophistical Refutations* 166b28–36, to argue that Plato or Plato's Socrates has a possible reply to the sophisms, one must rely on an analysis of the fallacy that Plato could have given. Second, simply identifying the argument as a *secundum quid* does not much help Socrates campaign against the brothers, as it does not give Socrates a principled way to diagnose what has gone wrong. Indeed, identifying the fallacy as a *secundum quid* out of line with Socrates' general approach to debunking the fallacies in the *Euthydemus*. At 277e5, Socrates encourages Clineas to learn Prodicus' skill of the 'correctness of names' to solve the sophisms. This suggests that, rather than the formal fallacy of adding or removing qualifiers, we should be looking for a fallacy of

¹⁰ See Buridan's *Summulae de Dialectica* 7.4.2.

¹¹ (McCabe 2005, 110).

ambiguity. Moreover, diagnosing as a *secundum quid* fallacy is uninformative. We learn nothing about the Socratic idea of knowledge with such a diagnosis.

We can now see that there are some desiderata on a persuasive reading of this passage, based on the criticisms I have levelled at the *secundum quid* reading of the sophism. First, whatever analysis we choose, there is across-the-board agreement that Socrates is presented as being aware that the sophism is a fallacy with a solution.¹² We would like any solution to be one that Plato's Socrates could have given. Second, we know the general shape of that solution should be in term of an ambiguity, rather than a formal fallacy, concerned with the addition or removal of qualifying expressions. Finally, in line with McCabe's project, how we resolve the fallacies should tell us something about knowledge and learning, not just about refuting fallacies.

This distinction between fine- and coarse-grained readings of 'knowledgeable' helps us meet these desiderata. Where Socrates is knowledgeable, under the fine-grained reading, Socrates knows some specific object of knowledge, say Pythagoras' theorem. Under this analysis, from the fact that Socrates knows something, we can infer only that Socrates is knowledgeable *about that thing*. This is simply because 'Socrates knows something', under the fine-grained reading, means that Socrates knows something specific. So it is true that Socrates knows something.

But, the move from 'Socrates is knowledgeable', understood as fine-grained, to 'Socrates knows everything' is not legitimate: the object of fine-grained knowledge is not 'everything', but merely the specific object of knowledge, say Pythagoras' theorem. So we cannot legitimately conclude that Socrates knows everything from the fact that

¹² (Canto 1989, 217); (Hawtrey, 1981, 141); (McCabe 2005).

Socrates is knowledgeable, because the fine-grained reading of 'knows' does not require that knowledge be of everything. Knowledge, in this sense, can merely be of one or more specific domains or items. This does not, of course, rule out that knowledge could be of everything; it merely rules out that being in a state of knowledge entails knowledge of everything.

This meets our first desideratum, since Plato could have given this analysis. It meets the second because it explains the fallacy in terms of an ambiguity. The ambiguity is between 'knowledgeable', understood in a fine-grained sense and 'knowledgeable' understood in a coarse-grained sense. Socrates can be 'knowing' in the sense of being in a fine-grained state of knowing, in virtue of knowing something like Pythagoras' theorem. But this is consistent with Socrates not knowing something else in a fine-grained sense, since he lacks an intentional state directed towards some knowable thing. On the other hand, if we disambiguate with coarse-grained sense of 'knowledgeable', Euthydemus seems right: Socrates cannot be knowledgeable about the knowable as a whole and also not knowledgeable as a whole.

Furthermore, EUT, the deviant Principle of Non-Contradiction, gives a reason to think that the disambiguation between fine- and coarse-grained senses of 'knowledgeable' is at stake. Euthydemus omits the relational qualification from the PNC to block a response to the sophism, a response which Socrates attempts. Specifically, the response that Socrates knows some things and not some others: when 'knows' is taken in a fine-grained way, it is perfectly true and harmless that Socrates knows some things and not others. The deviant PNC, however, is true only if 'knows' is understood in a coarse-grained way. If 'knows' is coarse-grained, then 'Socrates knows' means 'Socrates knows

the knowable’, while Socrates ‘Socrates does not know’ means ‘Socrates does not know the knowable’. In either case, the object is a generic one, the knowable. The relational qualification is moot: coarse-grained knowledge only relates to the knowable, so can be bracketed. At least, Euthydemus thinks so.

Finally, my suggestion that the Omniscience Sophism can be solved by distinguishing fine- and coarse-grained senses of knowledge connects with the Socratic thought about how we acquire expertise. The sophists assume that being knowledgeable is a maximally coarse-grained. This makes being knowledgeable an all or nothing affair: either the subject is knowledgeable about the knowable as a whole or the subject is not knowledgeable at all. Socrates, in exposing the Omniscience Sophism, shows that one can be knowledgeable in a fine-grained way: a knower can know part of the knowable domain, without knowing it as a whole. This leaves open the door not only for expertise, being knowledgeable, but also for learning to be knowledgeable: fine-grained and coarse-grained knowledge are on a continuum. So resolving the fallacies as I have suggested doesn’t just tell us something about how to avoid fallacies; it tells us something about the epistemology contained in the *Euthydemus*.

Conclusion

One way to understand Plato’s *Euthydemus* is as a catalogue of sophisms, with Platonic hints a how to solve them: a sort of inchoate *Sophistical Refutations*. Another way, which McCabe has reinvigorated, is to view the *Euthydemus* as a deeply Socratic conversation, concerned with how we learn to be virtuous and, above all, knowledgeable. My response

has suggested how McCabe's distinction between perfective and imperfective aspects of learning can be extended to coarse- and fine-grained aspects of knowledge. This latter distinction can offer a satisfying explanation of the text of the Omniscience Sophism. Furthermore, unlike the uniform, coarse-grained knowledge of the brothers, the distinction between fine-grained and coarse-grained knowledge can help Socrates make sense of learning.

Acknowledgements

It is my great pleasure to offer this response to a wonderful paper by MM McCabe, from whom I have learned so much, in both the perfective and imperfective senses.

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