

Some Challenges to a Contrastive Treatment of Grounding

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Abstract

Jonathan Schaffer has provided three putative counterexamples to the transitivity of grounding, and has argued that a contrastive treatment of grounding is able to provide a resolution to them, which in turn provides some motivation for accepting such a treatment. In this paper, I argue that one of these cases can easily be turned into a putative counterexample to a principle which Schaffer calls *differential transitivity*. Since Schaffer's proposed resolution rests on this principle, this presents a dilemma for the contrastivist: either he dismisses the third case, which weakens the motivation for accepting his treatment of grounding, or else he accepts it, in which case he is faced with a counterexample to a principle that his proposed resolution to the original cases depends on. In the remainder of the paper I argue that the *prima facie* most promising strategy the contrastivist could take, which is to place some restriction on which contrastive facts are admissible so as to rule out the purported counterexample to differential transitivity, faces some important difficulties. While these difficulties are not insurmountable, they do pose a substantial challenge for the contrastivist.

Keywords. Grounding; contrastivity; transitivity.

Grounding is very often assumed to be transitive. This assumption is intuitively plausible, but it can also be fairly useful for methodological pur-

poses (Fine 2012: 44). However, Jonathan Schaffer (2012) has provided some putative counterexamples to the assumption that grounding is transitive. Furthermore, Schaffer thinks that failures of grounding transitivity provide some motivation for a contrastive treatment of grounding. According to Schaffer, a contrastive treatment not only resolves the original counterexamples, but it also provides a general diagnosis for failures of transitivity. If this proposal is right, this would mark a significant departure from the way grounding is usually understood. However, if a contrastive account has the virtues Schaffer claims for it, such a radical departure might very well be justified.

In this paper I shall argue that while a contrastive treatment of grounding may well resolve the original counterexamples, it is possible to modify one of the counterexamples in a such a way that it is no longer clear that a contrastive treatment will be able to handle it—at least not without substantial development. Unless some such development is shown to be able to handle it, the motivation for a contrastive treatment of grounding is seriously weakened.

The structure of the paper is as follows. In §1, I briefly present the case suggested by Schaffer that will be the focus of this paper, and I explain how a contrastive treatment of grounding is supposed to provide a resolution. As we shall see, the proposed resolution crucially depends on the assumption that grounding, as understood by the contrastivist, obeys a principle of differential transitivity. In §2, I present a putative counterexample to this principle that has roughly the same force as Schaffer's original counterexample. After defending the counterexample from some initial objections that could be raised against it, I focus on a somewhat more promising strategy, according to which the counterexample is to be ruled out by placing some restrictions on which pairs of facts are admissible as contrastive facts, and I argue that the main difficulty with this strategy is that the most obvious candidate restriction places unreasonable demands

on admissible contrastive facts, since it rules out grounding claims that we might otherwise be intuitively inclined to accept. And while a more subtle restriction might rule out just the right kind of grounding claims that generate the counterexample, we would still need to motivate such a restriction in a way that is not *ad hoc*. While these difficulties are not insurmountable, they do provide a reason for remaining skeptical of the prospects for the success of a contrastive treatment of grounding.

1 A putative counterexample to the transitivity of grounding

The cat's meow

In the case that is going to be the focus of this paper, we are to consider Cadmus, a cat who is currently meowing, and the particular sperm-egg pair whose meeting it resulted from—call it pair A. The example can then be formulated as follows:

- (1) The fact that the creature was produced by the meeting of pair A partially grounds the fact that Cadmus is meowing.
- (2) The fact that Cadmus is meowing partially grounds the fact that something is meowing.
- (3) The fact that the creature was produced by the meeting of sperm A partially grounds the fact that something is meowing.

The fact that this very cat, Cadmus, is meowing, is grounded in the various facts that make him Cadmus as opposed to some other cat. Assuming that origin essentialism is true, the thought is that one of those facts is that Cadmus was produced by the meeting of pair A, which renders (1) plausible. Now (2) is also plausible, since it is an instance of the over-

whelmingly plausible principle that general existential facts are grounded in each of their instances. According to Schaffer, however, (3) is false, since the historical fact that the creature was produced by the meeting of pair A does not contribute in any way to the fact that there is something meowing. While facts about the cat's origin might ground facts about his identity, about his being Cadmus rather than some other cat, such facts do not ground facts about his meowing.

Schaffer believes that the present case is a genuine counterexample to the transitivity of grounding, and that failures of transitivity provide some motivation for a contrastive treatment of grounding, since such a treatment allows for a resolution to the counterexamples. According to contrastive treatments of grounding, grounding is a four-place relation that holds between (i) an obtaining fact ϕ , (ii) a non-obtaining alternative to ϕ , (iii) an obtaining fact ψ , and (iv) a non-obtaining alternative to ψ . On this view, grounding claims have the following form:

- (C) The fact that ϕ rather than ϕ' partially grounds the fact that ψ rather than ψ' .

The contrastivist will say that while transitivity itself does not hold for grounding, there is a similar principle governing grounding, namely *Differential transitivity*:

- (DT) If the fact that ϕ rather than ϕ' partially grounds the fact that ψ rather than ψ' , and the fact that ψ rather than ψ' partially grounds the fact that χ rather than χ' , then the fact that ϕ rather than ϕ' partially grounds the fact that χ rather than χ' .

The contrastivist will also say that while **The cat's meow** is a genuine counterexample to the transitivity of grounding, once we fill in the slots for the implicit contrastive facts, we shall be able to see that this case poses no challenge to differential transitivity. The following seems to be the most

natural way of filling in the contrastive facts in (1):

- (1') The fact that the creature was produced by the meeting of pair A rather than pair B partially grounds the fact that Cadmus is meowing rather than Cilix meowing.

Here, A and B are different pairs of sperm and egg, and Cilix is a name for the cat that would have resulted from the meeting of pair B instead of A. Given origin essentialism, (1') seems true. However, if we fill on the left-hand side of (2) with the same pair of contrastive facts as on the right-hand side of (1'), we get the following false statement:

- (2') The fact that Cadmus is meowing rather than Cilix meowing partially grounds the fact that something is meowing rather than nothing meowing.

(2') is clearly false, for the fact that there is something meowing rather than nothing meowing has nothing to do with the fact that it is Cadmus rather than Cilix who is doing the meowing, but with the fact that the creature is meowing rather than not. So, in order to get a true grounding statement, we would need to fill on the left-hand side of (2) with a different pair of contrastive facts, but then, of course, we would not have a genuine counterexample to differential transitivity, for (DT) requires that the contrastive facts are held fixed throughout the inference. Schaffer applies the same resolution strategy to show that none of his original counterexamples to transitivity constitutes a genuine counterexample to differential transitivity. Now, if such a strategy were successful, that would be a significant virtue of a contrastive treatment of grounding, for it would seem to provide a general diagnosis of failures of transitivity, which is that such failures generally result from an illicit shift in the middle contrastive facts.

In the following section, I will present a case that has a fair claim to be considered as a counterexample to differential transitivity. Of course, the

contrastivist can always reject one of the steps leading to the conclusion or accept the conclusion itself, but I believe the case has the same force as Schaffer's own **The cat's meow**. If somebody is moved to accept Schaffer's counterexample to transitivity, she should likewise accept the following counterexample to differential transitivity.

2 A putative counterexample to differential transitivity

The cat's silence

In the case I am envisaging, we are to consider, on the one hand, a pair A of sperm and egg whose meeting actually results in Cadmus, who is able to meow, and on the other hand, a different, defective pair B whose meeting would have resulted in Cilix, who would not have been able to meow due to his defective genes. Also, we are to suppose that Cadmus is the only thing capable of meowing in my house, so that, had Cilix been born instead of Cadmus, nothing in my house would have been able to meow. The example goes as follows:

- (4) The fact that a creature was produced by the meeting of pair A rather than pair B partially grounds the fact that Cadmus is able to meow rather than Cilix not being able to meow.
- (5) The fact that Cadmus is able to meow rather than Cilix not being able to meow partially grounds the fact that something in my house is able to meow rather than nothing in my house being able to meow.
- (6) The fact that a creature was produced by the meeting of pair A rather than pair B partially grounds the fact that something in my house is able to meow rather than nothing in my house being able

to meow.

In this case, (4) seems at least as plausible as (1), assuming that facts about the origins of the cats ground facts about their identity, about their being Cadmus or Cilix respectively. (5) seems to be true as well, since Cadmus is a witness to the general existential fact that something in my house is able to meow, and had Cilix been born instead of Cadmus, nothing else in my house would have been able to meow. However, it seems that if we reject the conclusion of **The cats meow**, we ought on the same grounds to reject the conclusion in this case as well, for while facts about the origins of the cats ground facts about their identity, they do not ground facts about whether or not something in my house is able to meow.

There are two sorts of objection one could raise in response to the present case. The first one is that either some of the steps leading to the conclusion are false or else the conclusion itself is true, and the second one is that there is something inadmissible about the kind of grounding claims that the counterexample relies on. Let us begin with some objections of the first sort. Since (5) relies on the plausible principle that general existential facts are grounded in their instances, there are really only two places in the inference with respect to which this sort of objection has any plausibility. First, someone might argue that (6) is actually true. Since the truth of (6) seems to be on equal footing as the truth of (3), anyone who pursues this strategy should be able to show that there is a significant disanalogy between the two cases.

One way in which someone might attempt to draw a disanalogy between **The cat's meow** and **The cat's silence** is by pointing out that in the former, the fact that the cat was produced by the meeting of pair A was not supposed to contribute in any way to the fact that Cadmus was meowing. As Schaffer so aptly puts it, "the fact that the creature was produced from the meeting of this sperm and that ovum helps make it be *Cadmus* meowing, but doesn't help make it be Cadmus *meowing*" (2012: 129). In the latter

case, in contrast, the fact that the cat was produced by the meeting of this particular sperm and that particular ovum not only helps make it be *Cadmus* being able to meow, but it also helps make it be *Cadmus being able to meow*. However, while the fact that Cadmus was produced by the meeting of pair A rather than B does indeed contribute to the fact that he is able to meow rather than not, it only does so in a causal way.¹ It is not clear to me what kind of facts facts about the cat's abilities are grounded in, but it just does not seem plausible to suppose that facts about his origins are among them.

Now one might be tempted to argue that (4) is false by saying something similar to what I have just said about (6). It could be argued that (4) is a true causal claim, but not a true grounding claim.² One way of cashing out this idea is by saying that while (4) expresses a false proposition, the statement might seem to be true at first glance because there is a related true proposition in the vicinity, namely the proposition expressed by the following statement:

- (4') The fact that a creature was produced by the meeting of pair A rather than pair B partially *causally explains* the fact that Cadmus is able to meow rather than Cilix not being able to meow.

Since in the present case there is a causal connection between the fact that Cadmus was produced by the meeting of pair A and the fact he is able to meow, (4') is probably true. However, under the assumption that facts about the cat's origins ground facts about his identity, the connection is not merely one of causation, but one of grounding as well, so it does not

¹Cf. Schaffer: "Of course there may well be a *causal* connection from the *past* meeting of sperm and ovum to the *present* meowing. But that must be distinguished from the question of whether there is a *grounding* connection from the *present* extrinsic and historical fact of origin to the *present* intrinsic fact of physical state" (2012: 129, fn. 10).

²This was part of Schaffer's response (personal communication), though he did not elaborate on this. What follows is just a way of cashing out the general idea.

seem any less plausible to suppose (4) is true as it is to suppose that (1) is true.

Two observations are in order. First, notice that the fact whose grounds are at issue is not the fact that *some* cat is able to meow rather than not, but the fact that *this* particular cat, Cadmus, is able to meow, rather than a different cat (i.e., Cilix) not being able to meow. Indeed, the connection between the fact that *some* cat is able to meow rather than not and the fact that it was produced by the meeting of pair A rather than B is merely causal. But the connection between the fact that *this* particular cat is able to meow rather than a different cat not being able to meow and the fact that the cat was produced by the meeting of pair A rather than B is not merely one of causation, but one of grounding as well.

Should we be bothered by the fact that the connection is of both kinds?³ I think not. It seems that there are pretty unremarkable cases of explanation where the connection between *explanandum* and *explanans* is of both kinds. Suppose that runner A decides to use performance-enhancing drugs in order to win a race, which is against the rules of the race. Suppose A wins, but that he wouldn't have won if it weren't for the fact that he used drugs—in fact, if he hadn't used any drugs, he would have lost, but he wouldn't have broken any rules, and so he would have done so honestly. Now suppose we wonder why it is that he won dishonestly rather than losing honestly, and consider the following explanation:

- (7) The fact that A used drugs rather than not partially grounds the fact that he won the race dishonestly rather than losing honestly.

Given the way the story is set up, (7) seems very plausible. In this case, the connection between the fact that A used drugs rather than not and the fact that he won the race dishonestly rather than losing honestly is clearly both one of causation and of grounding. It is one of causation because the

³I am grateful to an anonymous reviewer of this journal for raising this concern.

connection between his having used drugs rather than not and his winning rather than losing is clearly a matter of causation (using drugs is not typically constitutive of winning a race), but it is also one of grounding because the connection between his having used drugs rather than not and his having done whatever he did dishonestly rather than honestly is clearly one of grounding (using drugs did not *cause* him to do whatever he did dishonestly, but is partially constitutive of his having done so dishonestly). However, (7) seems like a perfectly good explanation of the fact that A won dishonestly rather than losing honestly. So the mere fact that the connection between *explanans* and *explanandum* in (4) is both one of causation and of grounding is no reason to reject it.⁴

Second, it is important to stress that (4) is intended as a statement of partial grounding, so there is no suggestion that facts about the cat's abilities are grounded in facts about his origins, which is admittedly implausible. If the fact that the creature was produced by the meeting of pair A rather than B were all there was to a full grounding explanation of why Cadmus is able to meow rather than Cilix not being able to meow, that would indeed suggest that facts about the cat's abilities are somehow grounded in facts about his origins. But that is not at all suggested by (4). Nothing about (4) rules out that other kinds of facts might figure in a full grounding explanation of the fact at issue.

⁴Furthermore, it should not be surprising that sometimes the connection between *explanans* and *explanandum* is both of causation and of grounding in view of the fact that there are multiple components to any *explanandum*, and so the *explanans* can bear different kinds of connection to different components. The contrastive facts on the right-hand side of (7), for instance, have both property components, namely *winning* and *losing*, and adverbial components, namely *dishonestly* and *honestly*. In this case, the *explanans* bears a causal connection to the *explanandum*'s property components, but a grounding connection to its adverbial components. Notice that the exact same thing happens in (4), where the *explanans* bears a causal connection to the *explanandum*'s property components, namely *being able to meow* and *not being able to meow*, but a grounding one to its object components, namely Cadmus and Cilix.

As I said, it is not clear to me what kind of facts about the cat's abilities are grounded in, but certain facts about the cat's physiology, such as the fact that it has a functioning larynx, will most likely be among them, so a full grounding explanation of the fact at issue will most likely mention these facts. However, that does not mean that facts about the cat's origins will not also be a part of the explanation, since the fact at issue contains information not just about the cat's abilities, but about his identity as well.⁵ To see how these facts could be part of a full grounding explanation, it is worth asking how such an explanation would look like. Here's a suggestion:

- (4*) The fact that a creature was produced by the meeting of pair A, that it has a currently functioning larynx and that conditions C obtain, rather than the creature being produced by the meeting of pair B, having a currently non-functioning larynx and conditions C obtaining, fully grounds the fact that Cadmus is able to meow rather than Cilix not being able to meow.

Here C stands for whatever other conditions besides the cat's having a functioning larynx might turn out to be relevant to a complete grounding explanation of the cat's ability to meow.⁶ (4*) seems like a plausible statement of full grounding. Furthermore, mention of the fact that the creature was produced by the meeting of pair A rather than B is not gratuitous, since we are not dealing with just any pair of cats but with Cadmus and Cilix. If we find (4*) at all plausible, as I think we should, then given that the fact that the creature was produced by the meeting of pair A rather

⁵I thank an anonymous reviewer for pressing me to clarify this point.

⁶The correct explanation might turn out to be slightly different depending on how the case is further fleshed out. The way I described the case, the only difference between the two scenarios is the pair whose meeting each cat is produced from and the corresponding effect on the cat's physiology, but if some condition in C were stipulated to fail to obtain in the second case, that failure should of course be included in the explanation. Nothing in what follows turns on these details, however.

than B is part of the explanation cited therein, we should find (4) equally plausible.

Having dealt with objections to the premises' truth or to the conclusion's falsity, let us move on to the second sort of objection to the present case, which is that there is something inadmissible about the way we have filled in the slots for the implicit contrastive facts. The thought is that there are some restrictions to which pairs of facts properly count as contrastive, and some of those restrictions rule out the present counterexample. However, it is hard to see just what sort of restriction could be appealed to in order to accomplish this.

Now one obvious restriction suggests itself when comparing the contrastive facts on the right-hand side of (1') and the contrastive facts Schaffer fills in the corresponding slot with in his proposed resolution to the original counterexample:

- (1') The fact that the creature was produced by the meeting of pair A rather than pair B partially grounds the fact that Cadmus is meowing rather than Cilix meowing.
- (4) The fact that a creature was produced by the meeting of pair A rather than pair B partially grounds the fact that Cadmus is able to meow rather than Cilix not being able to meow.

In (1'), we are holding fixed the presence of a cat meowing and comparing different ways in which the identity facts might be grounded, whereas in (4) we are holding fixed neither the identity of the cat nor his being able to meow. This is reflected in the fact that the contrastive facts on the right-hand side of (1') have the same property component, namely *being meowing*, and only differ as to their object components, namely Cadmus and Cilix respectively, whereas the contrastive facts on the right-hand side of (4) differ with respect to both their object components and their property components. A simple way of ruling out the counterexample would

then be to require, roughly, that whenever we have an obtaining fact ϕ containing an object (or objects) and a property (or relation) as constituents, an alternative non-obtaining fact ϕ' must have either the same object component or the same property/relation component in order for ϕ and ϕ' to count as properly contrastive facts.

While the proposed restriction might seem to provide a simple fix, the restriction is clearly too strong, for it rules out grounding claims that we might otherwise be intuitively inclined to accept. For instance, it rules out the following two grounding statements:

- (8) The fact that A's brain is in physical state P rather than B's brain being in physical state Q partially grounds the fact that A is in pain rather than B being in pain.
- (9) The fact that A's score was higher than B's rather than them being equal partially grounds the fact that A won the game rather than A and B tying.

Since the contrastive facts on the left-hand side of (8) differ with respect to both their object components and their property components, (8) is ruled out by the proposed restriction. But intuitively there does not seem to be anything wrong with (8). In fact, assuming that pain is multiply realizable, some grounding explanation along the lines of (8) would seem rather plausible. Likewise, the contrastive facts on the right-hand side of (9) have different property components (the property *winning* vs. the binary relation *tie*), as well as different object components (A vs. A and B). However, if we wish to explain why it is that a particular player won the game rather than him and someone else tying, it makes sense to give a grounding explanation along the lines of (9). Of course, either of these grounding claims might turn out to be false, but if they ought to be rejected, surely it is not because of the structure of their contrastive facts.

Now for all I have said there might be a more subtle restriction on admissible contrastive facts that will rule out just the right kind of grounding claims that generate the counterexample. Finding the right restriction is part of the challenge, but another part of the challenge is to motivate such a restriction in a way that is not *ad hoc*. I have no in-principle objection to the possibility of meeting either of these challenges, but we should keep in mind that they *are* substantial challenges, so it is an open question whether they can be met.

Conclusion

I have argued that there is a way of transforming one of Schaffer's own putative counterexamples to the transitivity of grounding into a putative counterexample to differential transitivity, and that the latter has the same force as the former. If my argument is successful, then the contrastivist cannot draw any support from **The cat's meow**, for if she accepts it as a genuine counterexample to transitivity, she has no grounds to reject **The cat's silence** as a genuine counterexample to differential transitivity, which undermines her resolution to the original case. Where does this leave the contrastivist? In my view, the best move for the contrastivist at this point is to reject **The cat's meow** and to rest her case on Schaffer's remaining two cases. However, this puts her in a difficult position, for there are forceful arguments in the literature against these two cases ([Raven 2013](#); [Litland 2013](#)).

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References

- Fine, Kit. 2012. "Guide to Ground." In *Metaphysical Grounding*. Cambridge University Press.
- Litland, Jon Erling. 2013. "On Some Counterexamples to the Transitivity of Grounding." *Essays in Philosophy* 14:3.
- Raven, Michael J. 2013. "Is ground a strict partial order?" *American Philosophical Quarterly* 90:193–201.
- Schaffer, Jonathan. 2012. "Grounding, transitivity, and contrastivity." In *Metaphysical Grounding*. Cambridge University Press.