

2 *Empirical Evidence and the Metaphysics of Ordinary Objects*

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What Is At Issue

The metaphysics of ordinary objects is an intriguing case study of how metaphysical considerations relate to considerations from other parts of inquiry, and how empirical considerations relate to more traditionally metaphysical ones. Although it seems that I can see and feel ordinary objects, that is, mid-size objects like tables and cars, and although many sciences talk about them, there is an active and ongoing debate within metaphysics about whether there are any such objects at all. Once we do metaphysics, we are told, we can see that we can't distinguish just by looking between the options of the world containing objects and the world only containing things arranged in an object-wise way, but no objects. The sciences do not distinguish between these options either. Thus, the question of the existence of ordinary objects is a properly metaphysical question and not one that is settled empirically, or so runs a common argument given in metaphysics. But on the other hand, it sure looks like there are some ordinary objects right in front of me, which would seem to answer the apparently metaphysical question by just looking, and thus possibly show that this question wasn't really all that metaphysical after all. In this essay, I would like to investigate this set of issues: whether the existence of ordinary objects can be established empirically and what this would mean for the metaphysics of ordinary objects. I will argue that we can indeed establish empirically that there are ordinary objects, and that various arguments that this is not so are making one or another epistemological mistake. This would show that some metaphysical debates about ordinary objects are based on a mistake, while others remain quite untouched by all of this.

Obviously, ordinary objects are not special to metaphysics. Many people want to find out about ordinary objects. Different people have

different questions concerning them, scientific ones as well as ordinary, rather unscientific ones. Engineers like to know about them, gardeners like to know about them, and so do metaphysicians. The question I would like to consider here is one about the place of metaphysics in finding out about ordinary objects. What work is there to do for a metaphysics of ordinary objects? Although this question isn't especially clear, there seem to be reasonably clear and uncontroversial specific cases. Metaphysics should not concern itself with how to make cars faster or more fuel-efficient, or what kind of engine a 1996 Mazda Miata has. Not that a metaphysician might not be helpful in the project of making cars faster. A metaphysician can be a car enthusiast as well, but that is not what metaphysics, the part of philosophy, is supposed to concern itself with. It might or might not have other questions on which it should properly focus. The question is: what are these questions that should be the focus of a metaphysics of ordinary objects? And consequently, what is it that a metaphysics of ordinary objects is supposed to do, and how does it relate to the questions that other people, be they scientists or not, are interested in when they ask about ordinary objects?

I do not aim to answer this question completely here, but I hope to make a little progress toward an answer. I hope to argue that there is less to the metaphysics of ordinary objects than many metaphysicians assume. Although a metaphysics of ordinary objects might be a central part of metaphysics, one of the widely pursued questions in this field should not be seen as being a metaphysical question. And this is the question whether there are any ordinary objects at all. I hope to argue that metaphysicians who hold that there is important metaphysical work to be done in answering the question whether there are any ordinary objects at all usually rely on some mistake in epistemology in their arguments. And once those mistakes are recognized, we can see that whatever questions there might be for a metaphysics of ordinary objects, whether there are any at all is not among them.

To clarify the issue a bit more, my concern here will not be with whether or not ordinary objects are part of fundamental reality, or whether they are substances in some technical sense, but only with the question whether there are any at all, i.e. whether ordinary objects exist. Those who think that metaphysics should concern itself with the investigation of fundamental reality, understood in some way or other, will likely agree with my conclusion that the question whether there

are any ordinary objects at all is not for metaphysics to concern itself with. I do not share this approach to metaphysics, but for present purposes this disagreement is beside the point. Our question is not whether the question “Does fundamental reality contain ordinary objects?” is a question for metaphysics, only whether the question “Do ordinary objects exist?” is. Not all questions about what exists can be seen as metaphysical questions. The question whether a particular elementary particle exists, or a particular kind of fruit fly, or a gold coin in my coin jar are very likely not metaphysical questions but questions for particular sciences or straightforward looking in the jar. On the other hand, the question whether universals exist or whether God exists are arguably metaphysical questions. What is unclear is whether the question whether or not ordinary objects exist belongs in one camp or the other.

Our question about the existence of ordinary objects here is related to, but different from, the special composition question, i.e. the question: under what circumstances do things compose something.¹ If ordinary objects exist then sometimes things compose something, and so nihilism – the view that they never compose something – is ruled out. But no matter what the answer is to the question whether ordinary objects exist, the special composition question is not thereby fully answered. And no matter how the answer to our question turns out, the issue of to what extent the special composition question is a metaphysical question is on the table, just as the issue of whether the existence of ordinary objects is a metaphysical question.

Even if the question of the existence of ordinary objects is not a metaphysical question, this does not mean that there is no legitimate and important metaphysics of ordinary objects. If it turns out that there are ordinary objects, but it wasn't for metaphysics to figure this out, then many other questions remain that might legitimately be seen as belonging to metaphysics. But it will be interesting to see why these are metaphysical while the one about the existence of ordinary objects is not. This might shed light on the relationship between metaphysics and other parts of inquiry, and illuminate the work that needs to be done on the questions that did turn out to be properly metaphysical, as well as how these relate to the other questions that are not properly metaphysical.

¹ See Inwagen 1990.

It is worth repeating already that whether the question of the existence of ordinary objects is a metaphysical question is itself not a very clear question. One might think that in order to properly answer it one must first determine what metaphysics is supposed to do, and then see how the question whether there are any ordinary objects fits in with metaphysics so understood. This would, of course, be hopeless. But we don't have to try to tackle this issue in such a top-down manner nor at this level of generality. We can instead consider some more obvious cases and extrapolate from them to an extent sufficient for present purposes. To take one such case, let us ask why the question what engine a 1996 Mazda Miata has is not a question for metaphysics to answer. Taking this seriously for the moment, here are a number of considerations that speak against it being a question for metaphysics, even without having a precise conception of metaphysics at hand. One is that the question is insufficiently general and excessively specific. Another is that we know more or less how to figure this out, that is, what methods to apply here, and these methods are not the methods of metaphysics as it is commonly understood. In a word, you figure it out straightforwardly and empirically. The question is too empirically tractable to be properly a metaphysical one, on the ordinary conception of metaphysics. That isn't to say that empirical considerations can't play a role in metaphysics, only that they can't play as dominant a role as they would in the question about the engine.

Even though it is not clear what metaphysics is supposed to do more precisely and how it does that, it is reasonably clear that certain questions are not metaphysical for just the reason that they can be answered in a largely empirical way. Such questions don't belong to metaphysics, but somewhere else in the overall division of labor within inquiry.

So, to put things together for our case at hand, our issue is closely tied to whether or not the questions "Do ordinary objects exist?" is a predominantly empirical question. Is this question answered, be it in the affirmative or the negative, on the basis of empirical considerations? Or do empirical considerations not, or not strongly, support one answer or the other? Is the issue ultimately decided on the basis of other, largely non-empirical, considerations? And even though it is not completely clear what an empirical consideration is, or how empirical and non-empirical considerations work together, and so on, this is nonetheless a good starting point for assessing whether the question of the existence of ordinary objects is properly a metaphysical one.

There are a number of follow-up questions that are good to consider next. First, is there any empirical evidence at all for or against the existence of ordinary objects? Second, is this evidence defeated in light of other considerations, in particular ones from metaphysics? Third, if so, how strong is the evidence left over in support of one answer or another? These questions might have answers that would quite clearly suggest where the issue of the existence of ordinary objects belongs. If there is no empirical evidence one way or another, then the question might well be properly metaphysical. If there is lots of empirical evidence that remains undefeated and that is overwhelming, then the question would appear to be not metaphysical at all. And if the latter, then maybe we could also see which way the evidence points.

In the following, I will argue that the question whether there are ordinary objects has an affirmative answer, and that this answer is overwhelmingly supported on the basis of empirical evidence. And thus, whatever work there might be in the metaphysics of material objects, the question whether there are any at all is not among it, although other questions might well be.

Perception and Undercutting

Although it might seem fairly trivial to conclude that we have empirical evidence for the existence of ordinary objects, many metaphysicians deny this. Or rather: many metaphysicians deny that we still have empirical evidence in their favor once certain considerations have been made explicit. These metaphysicians consequently hold that the existence of ordinary objects is a question left open by empirical considerations and thus especially suitable for metaphysical arguments for or against.² If this were correct, then metaphysics would have a central role in finding out about ordinary objects: it would be the job of metaphysics to find out whether there are any at all. I hope to argue in this section that these metaphysicians are making a mistake, mostly in epistemology.

It might seem surprising that anyone would deny that we have empirical evidence for the existence of ordinary objects. After all, I can see them right in front of me, I can feel them, taste them, and so

² Examples include Trenton Merricks (2001, 78 ff.), Cian Dorr and Gideon Rosen (2002, 155), Ted Sider (2013, 260), and many others.

on, and thus we seem to have paradigmatic empirical evidence for their existence. But in the metaphysics of ordinary objects there is a common line of reasoning that this apparent empirical evidence should be disregarded in light of some metaphysical considerations. The idea is simply that even though we think we see a table, once it is pointed out that this very same experience would occur in us if there was no table at all, but only things arranged table-wise, then it becomes clear that we are not in fact entitled to hold that there is a table in front of us in light of perception. Things would look exactly the same whether or not composition occurred: if there is a table, things would look this way, and if there are only simples arranged table-wise that do not compose a table, then things would also look exactly the same way. Thus, the issue at hand, does composition occur, do ordinary objects exist, is not one that can be settled empirically, or so runs the argument at a first pass.

This argument comes in different forms, and in the following I would like to take a closer look at two not dissimilar versions, one due to Trenton Merricks and one due to Daniel Korman. But first, let me set up a little what is and what isn't at issue.

There is a real question about whether or not perception entitles us at all to believing how the world seems to us to be. This question is closely related to the issue of skepticism in epistemology. And even if we accept that perception entitles us, somehow, there is a question why that is so, and whether anything substantial can be said about why. In the metaphysical debate about ordinary objects, the goal is not to answer these worries. Thus, the thought is not that the question of the existence of ordinary objects is to be settled in metaphysics and not empirically, since nothing is settled empirically or since the senses do not entitle us to hold anything. Rather skepticism is being put aside, and the senses are generally to be trusted. The question instead is whether we are entitled in particular to hold that the world contains ordinary objects.

What it means to say that the senses in general can be trusted is not completely clear, of course, but one plausible way to think of it is this: you can trust them unless you have reason to think otherwise. And that can be taken to mean that we are entitled to believe how your senses present the world to be, by default, unless and until that entitlement is taken away. Or to put it in other words again, we are defeasibly entitled to trust our senses, at least until that entitlement is

defeated. Why this is so (i.e., why we have this original defeasible entitlement) is a good question in epistemology, but not the question of concern in the metaphysical debate about ordinary objects. For that debate, defeasible entitlement is, and should be, taken for granted. The real issue here is about defeat: do we lose the entitlement we originally have, in particular once certain more metaphysical issues are being put on the table?

Before we look at the issue of defeat in more detail, it is important to see what it involves more clearly. This becomes clear when we think a little more about one of the crucial arguments that we can't tell the difference empirically between a situation where composition occurs and a situation where it doesn't occur, since both cases would look exactly the same. It is quite plausible to hold this, and there is a sense in which it is correct, but in the relevant sense for us here it is mistaken nonetheless. We do distinguish between the case of composition occurring and it not occurring in perception; not necessarily at the level of the phenomenology of the experience, but at the level of the perceptual belief which we form on the basis of this experience. The world might look phenomenally the same either way, with or without composition occurring, but the perceptual belief that we form on the basis of perceptual experience does distinguish between the two cases. It has a content that is only true if composition occurs. It has the propositional content that there is a table, say, and that belief, with that content, is only true if there is a table and thus if composition at least sometimes occurs. What we are defeasibly entitled to hold is not just that the world looks as the phenomenology of experience presents it to us to be, whatever that might come down to more precisely, but the content of our perceptual beliefs. The experience has a phenomenology, which does not distinguish between the two cases, in the sense that the phenomenology might well be the same in a world with or without composition. But that is not what matters. What we are defeasibly entitled to is the content of our perceptual beliefs, and those do distinguish between the two cases. The question is thus whether the default defeasible entitlement to our perceptual beliefs gets defeated. This is the crucial question for our debate, whether or not we have empirical evidence for there being ordinary objects. If our entitlement does not get defeated, then we have such evidence. If it does get defeated, or at least completely defeated, then we don't have any empirical evidence, at least not from perception.

As is common to hold, defeat can come in two main forms: rebutting and undercutting.³ Evidence for p is rebutted by evidence for not p and is undercut by making clear that the way the evidence was gained should not be trusted. Using standard examples to illustrate the difference, my hearing from Fred that p is rebutted by hearing from Sue that not p and undercut by learning that Fred is a notorious liar. Rebutting evidence against the existence of ordinary objects might be evidence from metaphysics that such objects are impossible, or that they lead to paradoxes, or the like. But more important than those arguments is the issue whether our empirical evidence for ordinary objects is undercut. This is crucial for the question of the weight of the evidence overall. Suppose that our empirical evidence is completely undercut by philosophical considerations: once we realize some metaphysical issues, then our empirical evidence just goes away in light of these considerations. Then the only evidence there is to consider when we assess the question whether there are any ordinary objects is the non-empirical evidence. And thus the proper answer to accept might be one supported by only weak evidence. If weak evidence one way or another is the only evidence that remains, then the weight of the evidence goes with it. On the other hand, if the empirical evidence is not undercut, then the non-empirical evidence against ordinary objects would have to be rather strong: it would have to rebut or outweigh all of our empirical evidence besides whatever non-empirical evidence we might have for ordinary objects. So, how strong purely philosophical considerations against ordinary objects have to be to be compelling depends on the status of the defeasible empirical evidence. The crucial question for us is thus whether our defeasible evidence from perception for ordinary objects is defeated by being undercut.

I want to consider three kinds of arguments that our defeasible entitlement for the existence of ordinary objects is defeated by being undercut. The first is that it just is, once we realize the metaphysical possibilities under discussion. Once we seriously entertain that composition might never occur at all, then our entitlement to our perceptual belief that there are tables or other ordinary objects just goes away. Once we realize what the options under discussion are, we can and should thereby recognize that we are not entitled to favor one side over the other on the basis of perception. And since we apparently did take

³ See Pollock 1986, 388 ff.

one side to be supported on the basis of perception until then, whatever entitlement we might have had for this just goes away. This option is in effect taken by Ted Sider when he says, “To anyone who understands the challenge of nihilism and takes it seriously, any prior perceptual justification in favor of tables vanishes” Sider (2013, 260). But this strikes me as a mistake, and we can see that this is too quick by comparing it to a similar reaction to skeptical scenarios. Simply realizing that there is a possibility where we would have the same beliefs that we now have and things would look the same (in the sense that the phenomenology of experience would be the same) is not enough to undercut our entitlement. This is no different here than in the classic case of an evil demon stimulating our brains. Things would seem to look the same in the evil demon scenario, but pointing to that possibility alone is not enough to undercut my entitlement or to conclude that once you take that possibility seriously our entitlement just goes away. On the other hand, if I had reason to think that the evil demon is acting on me in this way, then that would be different. Evidence that my beliefs are being produced in me in a way contrary to regular perception would indeed be undercutting. But for this to work, I need to have positive reason for this to be the case. Simply pointing out that there is this possibility is rather different, though. Pointing to such a possibility is food for thought, and it might quite reasonably have the effect that one’s confidence in one’s prior opinion gets diminished somewhat. But it does not completely take away my entitlement to my perceptual beliefs by undercutting them. To hold that would be a real overreaction.

We thus need more than simply to point to a possibility or to make a debate between two options vivid. We need some justification as to why our entitlement is undercut, not merely a pointer to a possibility. And more can be done. Both Trenton Merricks and Daniel Korman have tried to give a more detailed justification of why our defeasible entitlement from perception is defeated by being undercut. Both focus on causation and the causal mechanism that produces a belief in us. Merricks focuses on causal overdetermination, Korman on debunking and deviant causal chains. We will need to examine their arguments next.

Merricks holds that the question of the existence of ordinary objects is not in the end an empirical question (2001, 1). He would agree, I take it, with the above setup and that we are defeasibly entitled to our

perceptual beliefs, and that thus *prima facie* we have empirical evidence for the existence of ordinary objects. However, Merricks holds that this evidence gets defeated by certain considerations about the causal generation of our perceptual beliefs. Merricks in particular focuses on causal overdetermination. The setup for his argument is that, although we might initially be entitled to hold that there is a table, this entitlement gets undercut in light of considerations about causation. Thus, even if there are tables, perception does not entitle us to hold this once these considerations are made explicit. As a starting point for the argument, Merricks grants, for the moment, that composition does in fact occur and that particles arranged table-wise do indeed compose a table. Furthermore, in perception we are caused to believe correctly that there is a table in front of us. But what does the causal work in this causal process that generates that belief? Merricks holds that all the causal work is being done by the particles, with no extra contribution from the table itself, even if the particles do compose a table. Realizing all this, he holds, undercuts our entitlement to our belief that there is a table. We might have had it originally, but pointing out the causal facts takes it away. The table, even if it is there, plays no direct causal role in the production of our beliefs; all the causal work is done by the particles that compose the table. Once we realize how the table beliefs are caused in us, our defeasible entitlement gets defeated.⁴

But why is our entitlement supposed to be undercut by the details of the causal mechanism? It isn't enough to point out that something other than a table could produce that belief in me. For example, it isn't enough to point out that the particles could produce this belief in me even without composing a table, just as an evil demon possibility alone isn't good enough to defeat my belief, I take it, otherwise no belief will survive. The argument instead is that something other than a table does in fact produce the table belief in me. The table plays no causal role, assuming that Merricks is correct about the causal mechanism. However, it is not clear why this lack of causal work by the table itself should be epistemically relevant. To consider a different example to illustrate my point, I take it that all the causally active parts in my seeing the table are its surface: the surface alone would produce in me the belief that there is a table, and it alone does all the causal work in the actual

⁴ See Merricks 2001 for the details of Merricks's case for defeat, and also Merricks 2003 for some refinements.

production of my belief. But table surfaces alone are not tables. Does realizing this take away my entitlement to believe that there is a table in front of me when I seem to see one? I don't see why it does. It is not clear to me why the causal mechanism all by itself should be epistemically relevant. What is relevant is what connection our beliefs have to the facts that they are about. So, what is in the right ballpark for epistemological considerations is whether our beliefs track the facts, or are sensitive to the facts, and the like, but not directly how this connection is underwritten by a particular causal mechanism. To make this clearer, even if Merricks is right about all the causal work being done by the particles, it would still be the case that I would not believe that there is a table if there were no table. The counterfactual conditional is false, or so I hope to argue more explicitly shortly. If it were true, then one might think that it shows that my table belief is not sensitive to the table facts: I would have them even if it wouldn't be true. And furthermore, the argument goes, this shows that I am not entitled to my table beliefs. Whether this general sensitivity requirement is a necessary condition on being entitled to a belief is controversial, and I certainly don't want to endorse it, but at least it would be in the right neighborhood of challenging our entitlement to our perceptual beliefs. But the opposite is the case: our beliefs would be sensitive even if Merricks is right about causation. If there were no table, then I would not believe that there is a table even if all the causal work is being done by the particles. Let's distinguish the *table room*, where there is a table, the *no-composition room*, where particles are arranged table-wise but don't compose a table, and the *scattered room*, where there are neither particles arranged table-wise nor a table but possibly particles arranged some other way. The argument that would prima facie support Merricks is one that holds that if there were no table then we would be in the no-composition room. The particles would still be there, arranged as they are, but without composing a table. And then we would still believe that there is a table, since all the causal work is being done by the particles and their arrangement. But this strikes me as a mistaken reading of the counterfactual. If there was no table, then there would be no particles arranged table-wise either. If the table would be gone, then so would be the table-wise arrangement of the particles. So, we would be in the scattered room, not in the no-composition room. To further support this, consider an analogous case: suppose Fred did something wrong by kicking a cat. What would be the case if Fred hadn't done something wrong? I take it he wouldn't have kicked a cat, not that

he would still have kicked a cat but kicking cats would not be wrong any more. Similarly, in our case, if there would be no table, then it is not the case that the particles would still be arranged table-wise but that they would not compose a table anymore; rather the particles would not be arranged table-wise any more, either because they are scattered and arranged otherwise or because they are gone, just as the table is.

Thus our table beliefs would be sensitive to the table facts, even if Merricks is correct about the causal mechanism producing our table beliefs in us. And although it is controversial whether sensitivity of this kind is a necessary condition for entitlement, it is hard to hold that our beliefs are defeated when, in the alleged defeating scenario, they are nonetheless sensitive to the facts. Although sensitivity is not a necessary condition for belief to be warranted, it is reasonably taken to be a sufficient condition for alleged undercutting to fail to undercut. Sensitivity is at least in the right ballpark of an epistemically relevant relationship between our beliefs and the facts. The causal mechanism underwriting this relationship by itself is not. It is relevant only insofar as it undermines our connection to the facts, and even if Merricks is right about the mechanism, this connection is not undermined by it. So, I do not see the entitlement to our beliefs as being undercut, even if Merricks is correct about causation.⁵

A different argument for a similar conclusion is given by Daniel Korman.⁶ Korman presents his undercutting argument as a debunking argument, and thus in the group of arguments that hold that the explanation why we hold certain beliefs is not properly tied to the facts they claim to represent. In particular, although Korman grants that there might well be a causal connection between the object facts and our perceptual beliefs that there are objects in front of us, he holds that the causal process that produces our beliefs in us is a case of deviant causation and that realizing this defeats our entitlement to our perceptual beliefs. The reason is, in the end, that what concepts are triggered toward the end of the causal process is the result of our contingent mental setup, something that could have been very different and that isn't properly tied to what the concepts aim to be about. To illustrate, Korman starts with a case of a deviant causal mechanism that he takes to be analogous to the one that produces our perceptual

⁵ See also Sattig 2017 and Hofweber 2017 for more on this issue.

⁶ See Korman 2014 and 2015, ch. 7.

beliefs: his color printer example. It goes like this: a color printer prints out colorized versions of black-and-white photos, whereby the colors are selected based on the shade of grey in the black-and-white photo. When two different colors of the photographed objects would produce the same shade of grey in the black-and-white photo, then the printer colorizes it with whichever of the relevant colors have more ink left in the printer's ink tank. Red and blue produce the same shade of grey, and that shade of grey gets colored in on this particular occasion as red, since there is more red ink left in the printer cartridge right now. Upon learning about this whole mechanism, our entitlement that the depicted ball was red when the picture was taken is undercut. We realize that the causal mechanism that produced the red image is deviant enough that we can't conclude with much justification that the color of the object in the printout is its actual color. So far so good; it is completely reasonable to conclude here that our entitlement is defeated, or at least substantially weakened, since we realize that the ball might just as well have been blue. Korman now goes on to hold that the causal process that produces our perceptual beliefs in us is essentially the same. We end up with perceptual beliefs about objects, as opposed to simples arranged object-wise, or something else, as a result of a contingent biological or cultural process. We could have had different concepts or a different mental setup, just as the printer could have had different ink levels, but our perceptual beliefs are formed with the ones we happen to have. But that this could have been very different and that we would have ended up with very different perceptual beliefs illustrates that the concepts we employ are not properly connected to the facts they aim to represent. Once we realize all this, we lose our entitlement to our perceptual beliefs, or so Korman claims, just as we did in the printer case. The causal chain that produces our perceptual beliefs in us is deviant enough to take away our entitlement once we realize how it works. And this debunks our perceptual beliefs about ordinary objects.

However, it seems to me that the two cases are importantly different. In the color printer case, we know that the result is red or blue based on the amount of ink left, and thus we know that selecting from these options has nothing to do with the color of the original object. But this is not the case when it comes to which concepts we employ in our conceptual beliefs. True enough, it is very plausible that we could have had substantially different concepts and, if so, we would have

substantially different perceptual beliefs, beliefs that involve those different concepts. But that we have the concepts we have is not thereby shown to be arbitrary, even among a select set of concepts, nor is it shown that the concepts are not properly tied to what they aim to be about. We have the concepts we have in part due to our interaction with the world that those concepts are about. The world we interact with is in part responsible for the concepts we have, not some completely unrelated selection. How much the world we interacted with when our conceptual setup was formed constrains which concepts we end up with is completely unclear. Could we just as well have developed a completely different conceptual setup while interacting with objects as we did? We don't know, since we don't know how our concepts are formed. But in the color printer case, we do know, as the example makes it clear. There, we know that the final selection between red and blue is unrelated to the actual color of the object. The example makes this clear, and that is why learning this defeats our entitlement. But the details of our concept formation are largely unknown. And so nothing about what we know about our concepts defeats our entitlement to employ the ones we have.

An example about belief formation that would be more analogous to Korman's printer example and that would defeat our entitlement is this. God thinks about what kind of world to create, one with or without ordinary objects, and what kind of concepts to put into the minds of humans that will be placed in this world. First God creates the world, and when it is time to pick the concepts for humans, God simply picks whichever ones the angels put in the top drawer yesterday, completely independently of what world was created earlier. Learning this about our own creation would be undercutting, analogous to the printer case. But this is not how our concepts came into our minds. Our concepts are the result of our interacting with the world, and even though they clearly could have been different, that does not mean that they were selected either at random or for no reason connected to what they aim to represent. The opposite seems to be true: the concepts were put in our heads in part by interacting with the world they aim to represent, through a complex and very long process that resulted in the shaping of our minds in the evolution of our species. True enough, it could have gone differently, but this does not mean that learning how it in fact went undercuts our entitlement. This is completely disanalogous to the printer example. We don't just find the

concepts we employ in us for a reason completely unrelated to what we aim to represent with them. Even though the causal process could have ended differently, this does not mean that we should recognize that the way it did go is arbitrary or unrelated to what we hope to represent. And only the latter would defeat our entitlement. The former leaves it intact, just as recognizing that our beliefs could have been caused by an evil demon does.⁷

I conclude that neither the considerations presented by Merricks nor those presented by Korman support the claim that our defeasible perceptual entitlement is defeated. Having seen no other reasons to hold that defeat has occurred, I conclude that we are defeasibly entitled to take the world as perception presents it to us to be, that is, to the contents of our perceptual beliefs. And since those beliefs are about ordinary objects, I conclude that perception defeasibly entitles us to believe in ordinary objects.

Science and Rebuttal

Whether the empirical evidence overall speaks in favor of ordinary objects is, of course, not settled by the considerations so far. Even if perceptual evidence speaks in favor of them, and is not defeated by philosophical considerations, this is only one step toward accepting such objects. But the question isn't settled until we have considered all the evidence, and here there are three main issues remaining to consider: first, is there further empirical evidence for or against objects besides evidence from perception; second, is there non-empirical evidence for or against objects; and third, what is the weight of the evidence overall. Let's consider them in turn.

We are defeasibly entitled to our perceptual beliefs, those beliefs have contents that imply that ordinary objects exist, and so far we have seen no reason to think that these beliefs are defeated by being undercut. Perception thus favors ordinary objects, but perception is only one

⁷ Thanks to Dan Korman for helpful comments on this section. I should add that Korman in the end holds, as do I, that we are entitled to our perceptual beliefs, but on his account, this is because we have an additional "rational apprehension" of certain facts connected to objects. See Korman 2015, ch. 7 for more on what Korman means by this and why he thinks we have it and need it. I instead hold that we are entitled to these beliefs on the basis of perception alone, with rational apprehension playing no role in this.

small part of the picture, even only a small part of the empirical picture. Still, perception is a crucial part; in fact, it breaks a tie when it comes to other empirical considerations, and the perceptual evidence gets amplified upon further empirical investigation. To see this, we should consider what evidence we have from the sciences for or against ordinary objects. Perception can, of course, mislead us, even though it defeasibly entitles us to belief in ordinary objects. The question is whether further investigation confirms or rejects how perception presents the world to us. And this means first and foremost looking at whether science supports or rejects ordinary objects overall. If science goes against them, then our perceptual entitlement would still be defeated, not by being undercut but by being rebutted.

On the face of it, science is heavily in favor of ordinary objects. Almost all the sciences talk about composite objects, be they reasonably small like molecules or very large like plants. Some sciences even talk about pretty ordinary objects, like materials science, which investigates the properties of fairly ordinary objects like chunks of metal, or ceramics, or the like. However, there is a concern that this understanding of many sciences cannot be taken at face value. The question is on the one hand whether it is legitimate to describe the content of the science in terms of ordinary objects, and on the other hand whether it is legitimate to state the evidence for these theories in terms of objects as well. A nihilist about composition, who denies that composition ever occurs and thus that there are any ordinary objects, can challenge this. They can hold that the evidence should be described neutrally not to beg the question against nihilism. Thus, instead of stating the evidence in terms like “the metal bar is bent,” it should be stated in more neutral terms like “the things arranged metal bar-wise are also arranged in a bent way.” For example, Cian Dorr and Gideon Rosen argue that any statement of the empirical evidence in object terms begs the question, that the nihilist can always state the evidence in neutral terms, and thus that there is no scientific evidence in favor of ordinary objects (Rosen and Dorr 2002, 160 ff.). But this strikes me as mistaken, in particular in light of what we have seen about perception. We are defeasibly entitled to hold the perceptual beliefs that are produced in us. These beliefs have a content about objects. Thus we are defeasibly entitled to describe the evidence as we see it, and that is in terms of objects. And thus it is not begging the question against the nihilist to hold that the evidence as well as the content of our theories is as they appear to be, and this is

about composite objects. This is how perception entitles us to see the evidence, and thus how we are entitled to formulate our theories.⁸

Not all sciences are about composite objects. Those of the very small are not, nor are those that theorize in terms of fields or other more global things. This by itself does not mean, of course, that these theories are incompatible with there being ordinary objects, only so far that they do not directly concern themselves with them. But sometimes a stronger claim is made, namely that some features of quantum mechanics in particular are incompatible with there being ordinary objects. I won't hope to assess the validity of these claims here, but suffice it to say that this would not only show that quantum mechanics is incompatible with common sense, but also that it is incompatible with the rest of science. I have not seen a good argument for such an incompatibility, but of course this is not the place to properly discuss this topic.

Overall then, science does not rebut our perceptual beliefs but confirms them. The world as perception presents it to us: full of ordinary objects. The empirical evidence is strongly in favor of ordinary objects.

The Weight of the Evidence

The remaining question now is whether the total evidence, empirical or not, speaks for or against ordinary objects. Although the empirical evidence is in favor of objects, this is not all there is to the total evidence. There are a number of considerations that *prima facie* speak against the existence of ordinary objects. They include in particular a number of philosophical considerations, such as worries about identity over time, causal overdetermination arguments, and various other considerations that are brought up to support that there are no ordinary objects. I will not discuss any of these arguments here, in part because I don't have the space to do so and in part because they are well known.⁹ What I would like to focus on now is what strength these considerations need to have to tilt the scale of the overall evidence away from the empirically supported answer in favor of ordinary objects. And here the situation seems rather clear to me. Not only do these arguments need to override our perceptual evidence, they will need to

⁸ The present issue is discussed in more detail in Hofweber 2016, ch. 7.

⁹ See Inwagen 1990 and Merricks 2001 for a collection of anti-object arguments.

override essentially all of our scientific evidence as well. These would have to be arguments that show that we have been wrong about almost everything. And as such, they need to have tremendous strength. I leave it to those familiar with those arguments to judge for themselves how persuasive they are and whether they might achieve such an epic goal. On my own judgment, the situation is quite clear: the metaphysical arguments against ordinary objects raise some interesting issues, but they are largely unpersuasive and nowhere near at the level of strength required to show that almost everything else we hold dear is false. Furthermore, it is not clear that these arguments are even properly addressed if one abandons ordinary objects, and thus they seem to point something quite different than the non-existence of ordinary objects.¹⁰

This would be quite different if our empirical evidence were defeated. If the empirical considerations speak neither for nor against ordinary objects, then relatively weak considerations such as parsimony or elegance or uniformity could be brought up against ordinary objects, possibly tilting the balance of the evidence against them. These considerations carry some weight, and that should not be neglected. But their weight is relatively weak, although likely strong enough to make the difference if the empirical evidence is indeed defeated. But if the empirical evidence stands and remains undefeated, the strength of the evidence against objects needed to tilt the balance is extraordinary. The metaphysical considerations directly against them nowhere near rise to that level, and thus overall the weight of the evidence is strongly in favor of ordinary objects.

The Metaphysics of Ordinary Objects

It is not clear what distinguishes metaphysics from other parts of inquiry, but it is reasonable to hold that if a question is largely empirical, in the sense that the evidence for or against a particular answer to it is mostly empirical evidence, then the question should not be seen as metaphysical. This is one reason why it seems clear that the question what engine a 1996 Mazda Miata has is not a metaphysical question, although there are certainly other reasons in this case. If this characterization of metaphysics is on the right track, then the considerations

¹⁰ For the details of this last point, see McGrath 2005.

brought up above would support that the question whether or not there are any ordinary objects at all is not a metaphysical question. It is a question that is answered on the basis of empirical considerations, and metaphysics has no or little role to play in its answer. In this section, I would like to wrap up our discussion by considering what all this might mean for the metaphysics of ordinary objects.

To say that the question whether there are any ordinary objects is not a metaphysical question does not mean that metaphysicians can't or shouldn't consider the question. But it would be a mistake for metaphysicians to think of the question as one that is properly addressed in metaphysics. A metaphysician can look into the engine bay of a 1996 Miata, just like anyone else. But they should not think that in looking they are doing metaphysics, nor that the question should really be addressed with means other than empirical ones. The same, I hold, is also true for the question whether there are ordinary objects. A metaphysician, like anyone else, can wonder what the answer is, but the proper way to answer it is not to engage in metaphysics (unless, of course, one has the suspicion that there is a metaphysical consideration so strong that it would override all of our empirical evidence for ordinary objects). That is possible, but highly unlikely, just as it is unlikely that there is a metaphysical consideration that shows that Miatas don't have engines.

Whether there are any ordinary objects at all is not for metaphysics to answer, but that doesn't mean that there is no work for the metaphysics of ordinary objects to do. To be sure, the above considerations support that the debate about nihilism about composition is not properly carried out in metaphysics. If there are ordinary objects, then it is not the case that particles or simples never compose anything, and thus nihilism is false, on empirical grounds. But it is not clear that similar considerations would support or reject other answers to the special composition question. In particular, it is not clear if empirical considerations of the kind presented above settle the question about universalism, i.e. the question whether any things compose something. We do not seem to have perceptual beliefs that would imply an answer one way or another to this question. Not only do we not seem to have perceptual beliefs with the content that there is a thing composed of some random collection of things, we also do not seem to have perceptual beliefs with the content that there is no such thing. And similar considerations apply to other empirical sources of evidence, including

scientific considerations. This question does seem to be left open by the empirical, even though the question whether there are any ordinary objects at all is not left open. To be sure, this is only a *prima facie* difference. What the contents of our perceptual beliefs are is open for debate, as is what the sciences imply about these matters. But *prima facie* at least there seems to be a clear difference, and so *prima facie* many answers to the special composition question are open for metaphysical theorizing, being largely untouched by empirical considerations. Although nihilism is off the metaphysical table, many other views are not.

Second, many metaphysical questions about what ordinary objects are like do not seem to be answered empirically and thus are available for metaphysical theorizing as well. These include the debate about neo-Aristotelian or hylomorphic views of objects, questions about persistence through time, and many more. For all of these cases, there is a real question what the position is supposed to be more precisely, and what kinds of considerations would support one answer or another. But for all of these cases, it seems again *prima facie* plausible that these are not empirical questions. What the debate in this area comes down to is not completely clear, it seems to me, but the considerations brought up against taking the debate about nihilism to be properly metaphysical do not carry over to these other classic questions. Thus, overall, I do not see the arguments presented here to be globally anti-metaphysical. There is no general rejection of metaphysics at work here, only a local rejection of a particular debate. The debate about nihilism should not be carried out in metaphysics. The empirical evidence is so overwhelmingly in favor of one answer that the metaphysical arguments need to be of extraordinary strength to have any effect. There could be such arguments; we can't rule that out. But we also can't rule out that there could be metaphysical arguments that show that a 1996 Mazda Miata has a V8 engine. (It does not appear to have such an engine when one looks in the engine bay, and this seems to be confirmed after taking the engine apart.) It is unlikely that such an argument will be found, one that has sufficient strength to outweigh the empirical evidence that seems to point to a different answer. And the same is true for debating whether there are any ordinary objects at all. We can't rule out that metaphysical considerations will in the end answer the question of their existence, despite the empirical evidence that points one way. Still, in light of the empirical evidence, it would be

unreasonable to pin one's hopes for a good research project in metaphysics on finding an argument that can outweigh the massive empirical evidence. The smart money in metaphysics is to consider questions where the empirical evidence is weak or, even better, non-existent. This appears to be the case for many of the traditional metaphysical questions, but it is not the case for the question about the existence of ordinary objects. That there are such objects at all is answered empirically, but many other questions in the metaphysics of material objects are not answered that way. These are the questions we should be focusing on instead.