

# METAPHYSICS

## 5 QUESTIONS

edited by

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## Peter van Inwagen

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**Why were you initially drawn to metaphysics (and what keeps you interested)?**

When I was starting out in philosophy, when I was, so to speak, beginning to be a philosopher, I should have described my interests as centered not on “metaphysics” but on certain philosophical problems: the problem of free will and determinism, the problem of fictional existence, the nature of modality. As time passed, however, I began to use the term ‘metaphysics’ to tie the members of this rather diverse set of problems together. (As I became interested in further problems—the nature of material objects and their relations to their parts, the problem of identity across time, the problem of nominalism and realism—, I continued to use the word ‘metaphysics’ as a general term to tie the problems I was interested in together. I do not think that I became interested in these further problems because someone had classified them as belonging to ‘metaphysics’.) But why did I use *that* word? This is a hard question to answer because it is not at all clear what it means to classify a philosophical problem as metaphysical. I had long been aware that ‘metaphysics’ and ‘metaphysical’ were problematical terms, but I did not fully appreciate how problematical they were till a few years ago when I began to write the article “Metaphysics” for *The Stanford Encyclopedia of Philosophy*.

Even when I had not seriously thought about any other philosophical problem than the problem of free will and determinism, I described my interest in that problem as “metaphysical.” (Or perhaps I said, “I’m interested in the *metaphysical* problem of free will and determinism”—implying that there was more than one philosophical problem that could be called ‘the problem of free will and determinism’ and that I was interested in the one that was

metaphysical.) I said this because I believed that determinism—the thesis that only one future is consistent with the present state of things and the laws of nature (or the laws of physics)—was a metaphysical thesis and that any problem that essentially involved determinism was therefore a metaphysical problem.

But what did I mean by saying that determinism was a metaphysical thesis? That would be hard to say. I think it's clear what the, as one might say, phenomenology of my choosing that term was. Most other writers on the problem of free will and determinism did not think of determinism in the very abstract way that I did—or so at least it appeared to me. *They* were not thinking in terms of “the laws of nature” or “the laws of physics.” *They* had not had scientific educations—not even the first few stages of a scientific education that I had had. *They* had never had to answer examination questions like, “An artillery piece is fired at an elevation of 37 degrees. The muzzle velocity of the shell is 2000 meters/second. What will the position and velocity of the shell be ten seconds later? (Neglect air resistance and the rotation of the earth.)” I could see that these examination questions had answers—as, of course, examination questions should. I could see that (neglecting air resistance and the rotation of the earth, to be sure), Newton's laws of motion and assumption that the acceleration due to gravity near the surface of the earth is a given that does not vary from case to case jointly implied that the elevation of a gun and the muzzle velocity of a shell fired from it were together sufficient to *determine* the position and velocity of the shell at any moment between the moment the gun was fired and the moment of impact.

determinism, as I saw determinism, was a generalization of and abstraction from the fact that certain questions have answers—the questions about the evolution of physical systems that constitute such a high proportion of the exercises that one finds at the ends of the chapters in physics textbooks. (That is to say: the author of the text gives the student some numbers that describe the state of a system at one time and expects the student to produce some numbers that describe its state at some later time.) The generalization, however, and the abstraction are extreme, and their extremity takes one outside science. In making this generalization one quantifies over laws of physics and the physical quantities that occur in them—over *real* laws of physics, God's-eye laws of physics, which may well be radically different from any of those principles that scientists and engineers of the present day use to

grind out numbers that characterize the behavior of projectiles and planets and protons. And quantifying over real, God's-eye, laws of physics is not something that is done “within” the science of physics or within any other science. It was because my approach to the problem of free will and determinism had this sort of “feel” that I described it as ‘metaphysical’. (As opposed to what? Well, as opposed to ‘psychological’, ‘linguistic’, ‘commonsensical’, ‘ethical’—all words I used to describe the approaches to the problem of free will and determinism that I found in the work of various other writers.)

The preceding two paragraphs were an attempt to describe what was in my mind when I said that the determinism I was interested in was “metaphysical” determinism. (Other philosophers might use the word ‘determinism’ as a name for—say—the thesis that human action is determined to occur by the agent's desires and beliefs at the moment just prior to that action. That sort of thesis wasn't . . . well, metaphysical enough to engage *my* refined interest.) Perhaps this attempt was successful and perhaps not, but it was certainly not much help with the question, What did I *mean* by calling the kind of determinism I was interested in “metaphysical” determinism. After all, that question has an answer only insofar as I did mean something by ‘metaphysical’, and it's not now evident to me that there was anything much I meant by the word—or anything much beyond this: a philosophical thesis is metaphysical if (i) it can't be assigned with confidence to any other part of philosophy, and (ii) it involves a very high level of abstraction.

And what, if anything, do I mean by ‘metaphysics’ now? I have no interesting answer to this question. For an extended exploration of the question ‘What does “metaphysics” mean?’ (and for some difficulties I now see in an earlier attempt of mine to answer this question), see the article in *The Stanford Encyclopedia of Philosophy* that I mentioned above.

What keeps me interested in the questions I *call* metaphysical (beyond the interest each of them has for me *individually*, in and of *itself*: I just *am* interested in the problem of identity across time; I just *am* interested in the question whether there are abstract objects), is that the attempt to answer them seems in every case to involve a certain kind of thinking (there is a certain kind of thinking such that, in every case of a question I call metaphysical, when I attempt to answer that question I find myself engaging in that kind of thinking). It seems, moreover, that *only*

the questions I call metaphysical call for that kind of thinking. I will attempt to describe the nature of this kind of thinking in my answer to the question, "What do you consider to be the proper method for metaphysics?". Here I want to say something that is not about its nature but about what it is like to engage in it. I will do this by contrasting it with another kind of philosophical thinking that I have some experience of. Most of my philosophical thinking that is not about metaphysics belongs to Christian apologetic. (Which does not of course imply that none of my apologetic thinking is metaphysical thinking—that would be false.) This thinking could be looked upon as being in the service of "applied philosophy." (When apologetic is done by a philosopher, it is generally fair to describe it as applied philosophy.) It is the kind of thinking one does when one is defending an ethical or political or aesthetic or religious position that one considers particularly important against some reasoned attack by an opponent of that position. A good example of the kind of thinking I have in mind can be found in my papers "Non Est Hick" and "Critical Studies of the New Testament and Users of the New Testament." If Christianity is not the illusion most philosophers suppose it to be, what I have done in these and other essays of the same type may well be—depending on how good it is and whom it has reached—more important, perhaps vastly more important, than my work in metaphysics. But it is clear to me from my own experience of engaging in the kind of thinking that goes into these essays that that thinking does not engage the full resources of my mind. And that is not what I would say of the kind of thinking on display, for good or ill, in *Material Beings* or the essays collected in *ontology, identity, and modality*. Only when I am thinking about matters like "the special composition question" or Lewis's modal ontology or Putnam's criticisms of Quine's ontological method do I feel that my mind is fully awake. (I do not identify myself with my mind; I am not saying that I am fully awake only when I am engaged in metaphysical thinking. One in fact doesn't want one's mind to be fully awake any very high proportion of the time—if for no other reason, because when one's mind is fully awake, one's capacities for interacting with other human beings in all sorts of important ways will be asleep. If the Good Samaritan's mind had been fully awake when he was on the road from Jerusalem to Jericho, he would have been too wrapped up in his own thoughts even to have noticed the man who had fallen among thieves.) And this sort of thinking is addictive. I hope that when I am no longer able

to do it, I shall be aware of this fact and able gracefully to stop trying to it. Till then, however, I have no choice but to continue indulging my addiction.

Having re-read what I have just written, it occurs to me that it may well be that I call a question metaphysical just in the case that my attempt to answer it involves the kind of thinking I have been trying to describe.

### What do you consider to be your most important contributions to metaphysics?

I think I did as much as anyone to undermine the view that was the consensus on the problem of free will in the middle sixties when I began graduate studies in philosophy. This view was that the problem of free will was a solved problem. And the solution was 'compatibilism': the thesis that free will and determinism are compatible (because 'X was able to do otherwise' means something conditional, something along the general lines of, 'X would have done otherwise if X had chosen to do otherwise').

I think also that I left the problem of free will and determinism *clearer*, more precisely stated, than I found it. (It saddens me that those now working on the problem of free will and determinism are, or a significant proportion of them are, engaged in simply throwing all that hard-won clarity away. If one examines a really clear piece of writing on the problem of free will and determinism—for example, David Lewis's great essay, "Are We Free to Break the Laws?"—and the kind of thing that makes up no small part of what is written about free will and determinism today, the contrast is astonishing.)

I attach some importance to my defense of an "abstractionist" modal ontology—and particularly to my reply to David Lewis's charge that anyone who claims so much as to *understand* the language in which abstractionists frame their modal ontology is in effect claiming to possess magical powers of understanding.

I think that I did as much as anyone to create "the problem of material constitution." And I was certainly the philosopher who brought the "Special Composition Question" to the attention of the philosophers who were working on material constitution (despite the fact that I was not the first philosopher to formulate the question).

I think that I have had some important things to say about the identity of things and persons across time. I think that some of the things I have said about the concept of a temporal part and

about the psychological-continuity theory of personal identity are worth paying attention to.

I believe I am responsible for metaphysicians' having come to think in terms of a distinction between 'ontology' and 'meta-ontology'—ontology being the discipline that asks the question 'What is there?' and meta-ontology being the discipline that asks the question, "What are we asking when we ask 'What is there?'"

**What do you think is the proper role of metaphysics in relation to other areas of philosophy and other academic disciplines, including the natural sciences?**

I think that philosophy in general, and metaphysics in particular, have very little to offer to the natural sciences. (Philosophy and metaphysics are none the worse for that—just as sociology is none the worse for having nothing to offer to astrophysics.) In making this statement, I mean the phrase 'the natural sciences' to be understood in its strictest sense—I mean 'the natural sciences' to refer to the kind of research that leads to publications in journals of molecular biology or paleontology or condensed-matter physics. It is, however, a commonplace that not all scientists are content to communicate information about their work only in the pages of such journals—only to their peers, only to specialists in their own and closely related disciplines. According to Bouwsma, Wittgenstein once said (in conversation), "This is the age of popular science, and so cannot be the age of philosophy." I think that this characteristically gnomical statement means something like this: This is an age in which popular science plays a role in the general intellectual life of our species that had been played in an earlier age by philosophy (and in a still earlier age by theology). If this is true—and I think it is—, its truth is at least partly explained by two facts: that in the present age, scientists can expect that large numbers of people will listen to what they say on any subject they care to talk about, and that much of what appears under the rubric 'popular science' is, to all intents and purposes, philosophy. And this philosophy, the philosophy that infuses many works of popular science, is, I make bold to say, *radically amateur* philosophy, the philosophy of writers who do not know that there is such a thing as philosophy. (These writers no doubt know that there is something called 'philosophy' but they are unaware that this thing has any bearing on what they are trying to say—or perhaps a few of them do know that they are doing this thing called 'philosophy' but assume that, being sci-

entists, they will automatically and without any resources beyond the furnishings of their own minds, be able to do it better than its official practitioners.) I have never seen any philosophical work by scientists (Galileo is the sole exception I am willing to allow) that is of much philosophical interest. And this judgment certainly applies to the attempts of scientists to discuss metaphysics. The attempts of scientists to address large questions outside their own disciplines (but informed by their knowledge of their disciplines) in work addressed to the general public would certainly be much better for some knowledge of what philosophers have had to say about those and related questions.

If metaphysics has nothing to offer the sciences, the sciences—the fruits of the real work of scientists and not their amateur attempts at philosophy—have a great deal to offer metaphysics. Many scientific discoveries are not only relevant to metaphysics but of inestimable metaphysical importance (one might cite the discovery by cosmology that the physical universe had a beginning in time, or the discovery by high-energy physics that material things are ultimately composed of things that are not themselves composed of smaller things—and yes, I know what McCall, Ladyman, and Ross have to say about that thesis). Nevertheless, the exploitation of this important resource for metaphysics (and more generally for philosophy) has been entirely the work of scientifically literate philosophers.

I would also note that, quite apart from the *discoveries* of physics (and the other sciences), many metaphysicians could learn a great deal by carefully studying the way in which the writers of physics textbooks introduce such concepts as "velocity," "acceleration," "mass," "force," "momentum," "energy," "work," "power," and "heat."

I do wish that my colleagues in literature and the social sciences would stop trying to do metaphysics (well, it's generally *anti*-metaphysics that they're trying to do). The scientists, philosophical amateurs though they may be, at least have at their disposal a fund of propositions that can serve as premises in metaphysical arguments. The *littérateurs* and the social scientists, however, have no such fund on which to draw. (I do think that literature and the social sciences are of signal philosophical relevance. But their relevance is to ethics and political philosophy and—of course—aesthetics, not to metaphysics or anti-metaphysics.)

It has long been a complaint of mine that the philosophy of mind suffers from the failure of philosophers of mind to pay sufficient

attention to the metaphysical issues their statements involve them in. When I try to read through—as an interested outsider—the course of various debates in the philosophy of mind, I often find them difficult to follow. (That's the polite way of putting my point. The less polite is: I constantly find myself saying, "What does that even *mean*?") In a typical work in the philosophy of mind, concepts—and more often than not, they're metaphysical concepts—are pulled out of the air with no attempt to provide them with any definition or analysis. I will provide two examples of what I'm talking about.

Philosophers of mind like to talk about 'states'—mental states, physical states, what-have-you states. And when you ask a philosopher of mind what a 'state' is, the reply is generally either a blank stare or something along the lines of, "Well, *you* know—*states*. Please, none of your metaphysician's ontological quibbling. We philosophers of mind know what we mean when we talk about mental states and physical states, and if you don't, that's *your* problem." I insist on ontological quibbling, however. I insist on asking whether a state is an *attribute* (or a *property*, *quality*, *characteristic*, or *feature*). These are abstract objects, things that exist in all possible worlds and which are without causal powers. And the answer to this question I insist on asking (when any answer is given) is usually something like, "Well of course that's not what states are. A person's mental states exist only when he or she is *in* them, and they're constantly causing and being caused by other states." And then I have to ask, "But what is there for a state to *be* but a property? Aunt Milly's mental and physical states aren't *substances*, are they?—that is, things that belong to the same ontological category as Aunt Milly herself?" It is rare for the conversation to get as far as this, but if it does, I'm told (I paraphrase), "Well, they're neither substances nor attributes, they're *states*. Don't expect the things we talk about in the philosophy of mind to fit into the neat *a priori* categories you metaphysicians dream up." And my rejoinder is, "I don't see any reason to believe that there are any things with the combination of properties you assign to 'states.' It looks to me as if the very idea of a thing that has those properties makes no sense. All the stuff you say about or in terms of 'states' looks to me as if it's *not even false*." (A closely related point: don't get me started on the radical ontological—and even logical—confusions that infect what philosophers of mind say when they start talking about "qualia.")

My second example is the psychological continuity theory of

personal identity. But I have had a great deal to say about this subject already. I refer the interested reader to my essay, "Materialism and the Psychological Continuity Account of Personal identity" (*Philosophical Perspectives*, Vol. 11: *Mind, Causation, and World* (1997), pp. 305-319).

### What do you consider to be the proper method for metaphysics?

William James has said, "Metaphysics means only an unusually obstinate attempt to think clearly and consistently." While this will hardly do as a *definition* of metaphysics, it is not a bad statement of the only *method* we metaphysicians have. A fuller attempt to answer this question can only take the form of a series of footnotes to this statement—can only be an attempt at a statement of what a metaphysician's obstinate attempt to think clearly and consistently should involve.

Bas van Frassen, an avowed enemy of metaphysics, seems to believe that the method of metaphysics (insofar as a pseudo-discipline can have a method) is that of "inference to the best explanation." As scientists are said by some to survey a set of empirical data and then try to come up with a theory that is the best explanation of those data, metaphysicians, van Frassen maintains, (*think they*) proceed by surveying some set of data (I will not attempt to say what these data might be) and then attempting to construct theories that explain them. These metaphysicians (so *they* suppose) then proceed to compare the theories they have constructed to explain one of these sets of data with an eye to discovering which one *best* explains them. (What the standards of comparison are, I will not attempt to say.) And it may be that van Frassen is right to say that this is what some metaphysicians (*think they*) are up to—and right in his unflattering comparison of the fruits of their labors with those of the labors of physicists and geologists and microbiologists. van Frassen errs, however, in supposing that this "method" (I agree entirely with his low opinion of its fruits) is essential to metaphysics, and I am doubtful whether it is very commonly employed by philosophers who call themselves metaphysicians. Like many people who offer unflattering diagnoses of the ills that afflict some field of human endeavor, van Frassen has fallen in love with his diagnosis and applies it indiscriminately and uncritically. "You're one of the people he's applied it to, right?" Very perceptive, Reader. But if I use my own work as an example, at least I'm in a position to have an

informed opinion concerning the method of the person I'm using as an example. van Frassen has written:

When interpreting scientific theories, we see much careful attention to the empirical aspect, and the relationship of the empirically superfluous parameters introduced to the observable phenomenon. That is why the Cartesian theory of vortices should receive considerably more respect—I'll say the same about Bohm's particles—than e.g., Peter van Inwagen or David Lewis' mereological atoms. Mere observance of correct logical form does not make a theory genuinely valuable: in Tom Stoppard's phrase, it can be coherent nonsense. —("Replies to Discussion on The Empirical Stance," *Philosophical Studies*, Vol. 121/2 (2004), pp. 171-192. The quoted passage is on p. 181.)

If I understand what van Frassen is saying, he thinks that the "mereological atoms" that occur in a certain metaphysical theory of mine—the theory presented in *Material Beings*—are "there" for some metaphysical reason: that they are a "metaphysical posit," that I have *postulated* them because, in my view, postulating them aids in explaining some set of data I have set out to explain. In fact, however, the mereological atoms are there because, rightly or wrongly (wrongly, Ladyman, *et al.* would say), I thought that the physicists said that matter had an atomic structure. Feynman has said:

"If in some cataclysm all scientific knowledge were to be destroyed and only one sentence passed on to the next generation of creatures, what statement would contain the most information in the fewest words? I believe it is the atomic hypothesis (or atomic fact, or whatever you wish to call it) that all things are made of atoms—little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another. In that one sentence, you will see there is an enormous amount of information about the world, if just a little imagination and thinking are applied." *The Feynman Lectures on Physics*, 3 Vols. (Reading, Mass.: Addison-Wesley, 1963-65), Vol. I, p. 2

Feynman, of course, is talking about atoms in the modern, chemical sense. In that sense, "atoms" are not what van Frassen calls *mereological* atoms—but Feynman would certainly not have objected to the statement that, just as "all things" (all things

that are present to the senses or that can be seen through an optical microscope) are "made of (chemical) atoms," so chemical atoms are made of electrons and protons and neutrons (and perhaps photons), and protons and neutrons are made of quarks (and perhaps gluons). And there are good empirical reasons to suppose that electrons and quarks (and photons and gluons) are not "made of" anything (or, if you like, that they are not represented by the "standard theory" of elementary particles as made of anything): that they are (represented as) mereological atoms. And there is good reason to think that future physical theories, successors to the standard theory, if they do not postulate electrons and so on, will postulate partless things (little vibrating "loops of string," perhaps—but little loops of string that neither have proper parts nor are made of a stuff called string.) It is as certain as anything in this area can be that no physics descended from present-day physics is going to represent the physical world as consisting of continuous, homeomeric Aristotelian matter or as consisting of "gunk." Physics is (pretty clearly) always going to be "atomistic" in *some* not entirely empty sense. Physics is always going to have to find *some* sense for statements like, "The matter—the *stuff*—that was in this test tube after the reaction is the same matter that was in it before the reaction—albeit in a different form." And this sense, when spelled out, is (pretty clearly) always going to involve phrases of the form 'same Xs' where 'Xs' represents a plural count-noun. So what I am I *supposed* to do when I'm constructing a metaphysical theory about the identities of physical objects across time—a theory that involves the notion of "same matter"? Adopt an *Aristotelian* understanding of "same matter"? No, I simply borrowed the current scientific account of "same matter" (and perhaps registered my conviction that any future scientific account of "same matter" will be like the present-day account in being—in a very broad sense—atomistic). In sum, the mereological atoms are present in my metaphysical theory simply because I believe what the physicists tell me about matter—or at any rate, I believe what I *believe* they've told me. Even if I've misinterpreted them, even if my understanding of them is as feeble as Ladyman *et al.* think it is, my mereological atoms are not present in my metaphysical theory for a metaphysical reason. van Frassen thinks that they are only because he has brought to his reading of *Material Beings* a theory about what metaphysicians think they are doing—a theory that tells him that that's what I'm doing.

Whether or not this is fair to van Frassen, I do, as I have said,



agree with his contention that trying to construct theories that explain some set of data is not going to yield any metaphysical conclusions of any interest. But then what method or methods *should* metaphysicians employ? I would not presume to dictate to other metaphysicians how they ought to proceed—or not beyond urging them to make an unusually obstinate effort to think clearly and consistently. But I'll say a few things about what I try to do when I'm doing (what I call) metaphysics.

First, in metaphysics (and I would say, in all parts of “core” philosophy: metaphysics, epistemology, the philosophy of language, the philosophy of mind, and philosophical logic) all words and phrases should be used in their ordinary senses or else explicitly defined. (As I said earlier, physics texts can provide some very instructive examples of good, precise definitions.) Definitions should satisfy the following formal requirement. They should be in “Chisholm style”: the *definiendum* should be a sentence—normally an open sentence or a sentence schema—and the *definiens* a sentence containing the same free variables or schematic letters. In metaphysics, all terms of art should be connected to ordinary language by a chain of Chisholm-style definitions. (What I mean is that such a chain of definitions should be possible in principle, implicit in one's text and easily extracted from the text. One may certainly introduce one's terms of art more informally if one is confident that the reader will be able to see how to construct the chain of definitions. There's no call for unnecessary formality. But in borderline cases it's always better to err on the side of pedantry—for recall Russell's definition of a pedant: ‘A man who cares whether what he says is true’.) Similarly, one's arguments should be formally valid—though not necessarily presented in a form that is explicitly so. To say this is not to imply that there are proofs in philosophy as there are proofs in mathematics. It is simply to recommend a trick that will ensure that one is at least *aware* of all one's premises.

While we are on formal matters, I insist that in core philosophy one be scrupulous about use and mention. Every metaphysician must understand “Quine Corners” or “quasi-quotation marks” and use them when they are appropriate. (In my experience, about eighty per cent of the philosophers who use Quine Corners use them impressionistically, without actually understanding how they work.)

Following these simple rules will enable the philosopher at least to produce what van Frassen has called coherent nonsense. In my

view, it's much better to write coherent nonsense than to write incoherent nonsense. The reason is simple: if nonsense is logically coherent, it's much easier to see that it's nonsense and to see *why* it's nonsense than it is if the nonsense is logically incoherent. For example, if a philosopher's sentence contains a gross use-mention confusion, a reader of the text in which it occurs may suspect that there was some meaningful thesis that the author was *trying* to express—and may find, after re-writing or attempting to re-write the sentence without the use-mention confusion, that there was really no idea there at all. If the author had taken the trouble to write *coherent* nonsense, the reader would have been spared that task.

But these matters—important though they are—are of merely formal significance. What can I say that is more substantive? I would say that my own method in metaphysics (insofar as I have one) is this:

One should consider those theses that one *brings to* philosophy—theses that (so one supposes) practically everyone, oneself included, accepts, or theses (so one supposes) that have been endorsed by disciplines other than philosophy and in which one *reposes* a high degree of confidence (economic history, it may be, or microbiology or algebraic topology). One should try to discover what the metaphysical implications of those theses are. If, for example, one wants to know whether there are universals, what one should *not* do is this: collect a set of data (“This thing here is red and that other thing over there is also red”) and attempt to discover whether those data are best explained by a “theory” that “posits” universals; what one *should* do is to ask whether the theses that one brings to philosophy *logically imply* the existence of universals (one will, of course, have provided a careful definition of ‘universal’).

Note that this “method” (better: this piece of methodological advice) has implications for the epistemology of metaphysics. It implies that the epistemological problems or questions that confront metaphysicians—those of them who employ this method—fall into two groups: questions that are raised by the things they believed before they came to metaphysics, and questions that are raised by their beliefs concerning the logical implications of those things. (For example: How can one determine whether the existence of the real numbers is a logical implication of the statement that there are bodies whose behavior is governed by the law of universal gravitation?) The questions in the first group

are profoundly difficult, but they are not questions that confront metaphysicians because they are metaphysicians: they confront metaphysicians only because, outside or prior to philosophy, they believe what most people believe. (Obviously, therefore, the metaphysician who employs this method will be, in Strawson's words, a "descriptive" rather than a "revisionary" metaphysician.) The questions in the second group are no doubt difficult—some of them are difficult—, but there does not seem to be any good reason to regard them as intractable.

It is important to realize that I have *not* recommended the following method: Treat the theses we accept before we come to metaphysics as data that it is the business of metaphysics to explain; construct metaphysical theories that explain those data; compare these theories and find the one among them that best explains those data. (The so-called Quine-Putnam Indispensability Argument is an example of this method at work.) No, I'm recommending only that metaphysicians try to discover the metaphysical implications of—the metaphysical theses that are *logical* implications of—the things they believe on non-metaphysical (and, more generally, non-philosophical) grounds.

There is another method, or another methodological idea, that has, I believe, profoundly influenced my own work. But I find this "idea" very difficult to formulate verbally. My best attempt is along these lines:

Let your investigations be centered on general theses, not particular examples. If an otherwise attractive general thesis seems to have counterexamples, try to explain them away. If it is in conflict with particular things we are inclined to say, try to explain the fact that we are inclined to say these things away. Look at the particular theses about things in the light of the general theses you find attractive.

This methodological idea played a central role in the development of the theory I presented in *Material Beings*. In that case, it took something like this form:

Do not begin your investigation of the metaphysics of material objects by asking, e.g., whether there are tables and chairs. Begin by considering possible alternative answers to the Special Composition Question. If the best answer seems to be one that implies that there are no tables or chairs, try to explain the fact that "We all think there are tables and chairs" away. Ask yourself whether there really *is* such a fact as this.

But *Material Beings* is a special and very difficult case. (Many

philosophers believe the book to be an essay in revisionary metaphysics. And many who are not guilty of that misreading would be hard-pressed to find a way to regard it as an example of "trying to discover the metaphysical implications of things we all believe." I do so regard the book, but I cannot defend this view here.) Instead I will give a relatively simple example of the method I am recommending, an example drawn from philosophical logic rather than metaphysics. (It can be more briefly stated and raises fewer side issues than any example I can think of from metaphysics.)

According to standard sentential logic, the argument-form ' $\sim p \mid - (p \rightarrow q)$ ' is valid. Many philosophers say that this fact implies that ' $\rightarrow$ ' does not represent the 'if-then' of "ordinary" English conditionals ("is-'is'" conditionals, as opposed to "were/'did'-'would be'" conditionals). If it did, they contend (the example, of course, is my own), the following argument would be valid:

Marseilles is not the capital of France

hence, If Marseilles is the capital of France, Kim Jong-il is the illegitimate son of President Truman.

And if this argument were valid, 'If Marseilles is the capital of France, Kim Jong-il is the illegitimate son of President Truman' would be true—which it obviously isn't. And how do they know this? Well, they ask themselves whether this sentence is true, and they discover within themselves a conviction that it isn't. In my view, according to the methodological principle I'm recommending, this isn't what they should be asking. They should, rather, be asking themselves what general logical principles they think govern 'if-then' (and 'or' and 'it is not the case that' and the other little English words and phrases that are in some sense supposed to correspond to the connectives of sentential logic). I would ask them to consider the following argument:

Marseilles is the capital of France

hence, Either Marseilles is the capital of France or Kim Jong-il is the illegitimate son of President Truman

Marseilles is not the capital of France

hence, Kim Jong-il is the illegitimate son of President Truman.

And I would ask them whether they would concede that it was valid. Most of them would, although a few of them wouldn't. Let me address only those who would. I would proceed to ask them whether the principle of "Conditional Proof" applies if the "conditional" in question is an "ordinary" 'if-then' conditional. And this is a relevant question, for if it does apply, then (in virtue

of the above argument's validity), the argument

Marseilles is not the capital of France

hence, If Marseilles is the capital of France, Kim Jong-il is the illegitimate son of President Truman.

is valid. I don't in fact know what "they" would say, but I can testify that I find it much easier to believe that 'If Marseilles is the capital of France, Kim Jong-il is the illegitimate son of President Truman' is true (I mean, who *cares* what truth-value that bizarre sentence has?—isn't that a *paradigm case* of a "don't care"?) than I do to believe that Conditional Proof is not valid if the "conditional" in question is the 'if-then' conditional. In other words—and this is the point of the example—I do not proceed simply by considering a particular 'if-then' sentence with a false antecedent and asking myself whether it's true. I proceed by considering some argument-forms that involve 'if-then' (and 'either-or' and 'it is not the case that': the ordinary-language analogues of Addition and Disjunctive Dilemma) and asking myself whether I think those argument-forms are valid. In other words, I consider the question whether the conditional 'If Marseilles is the capital of France, Kim Jong-il is the illegitimate son of President Truman' is true only in the light provided by my consideration of much more general logical questions.

And I recommend considering the question whether there are tables and chairs only in the light provided by consideration of much more general ontological questions.

**What do you consider to be the most neglected topics in contemporary metaphysics, and what direction would you like metaphysics to take in the future?**

Only a few years ago, I should have said that meta-ontology was the most neglected topic in metaphysics (I mean of those that don't deserve to be neglected). Happily, this is no longer the case. I hope that the current lively debates about meta-ontology (such as those on display in the recent collection *Metametaphysics: New Essays on the Foundations of ontology*) will continue and deepen.

I hope that in the coming decade, metaphysicians will devote considerably more time than they so far have to the topic of the relative merits of constituent and relational ontologies.

Constituent ontologies are ontologies that affirm the existence of attributes (properties, qualities, characteristics, features) and which, moreover, treat these objects as being in some sense "constituents" of the substances (individuals, particulars) that have

them (exemplify them, instantiate them, exhibit them). The theory that individuals are "bundles" of qualities is a paradigmatic example of a constituent ontology—for if  $x$  is a bundle of  $ys$ , those  $ys$  must in some sense be constituents of  $x$ .

Relational ontologies are ontologies that affirm the existence of attributes but which treat the "having" relation as in no way like the whole-to-part relation—as not even remotely analogous to that relation or to any mereological relation. According to the advocates of relational ontology, the binary relation "having" that Mars and a socialist banner bear to the quality redness is as abstract, as bloodless, as purely external, as the variably polyadic relation "are numbered by" that the moons of Mars and the epics of Homer bear to the number two. It is an axiom of relational ontology that the only "constituents" of any substance (individual, particular) are its parts, its parts in the strict and mereological sense; and, further, that any proper parts a substance (individual, particular) has are "smaller" members of the same ontological category: smaller substances (smaller individuals, smaller particulars).

Many metaphysicians have endorsed and have worked within a constituent ontology. Many metaphysicians have endorsed and have worked within a relational ontology. But an examination of the relative merits of constituent ontologies (on the one hand) and relational ontologies (on the other) is a neglected and important topic.

I also hope that some metaphysicians will turn their attention to the question of the implications a relational ontology for the philosophy of mind. For a first attempt at an investigation of this question, see my essay, "A Materialist ontology of the Human Person" in the collection *persons: Human and Divine* (Oxford: 2007) that Dean Zimmerman and I edited.