Two Approaches to Event Ontology

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Abstract: In the paper, I distinguish between the semantic and the "direct" approach to event ontology. The first approach, employed by D. Davidson, starts with logical analysis of natural language. This analysis uncovers quantification over the domain of events. Thus, we have ontological commitment to events and, at the same time, also a suggestion of how to view their nature. The second approach, used by J. Kim and D. Lewis, deals with events "directly", i.e. not by analyzing language first. Events are postulated because they are useful in other theories (of causation, explanation, etc.) and their nature is adjusted to the needs of these theories. In the paper, I analyze both approaches and outline their problems and advantages. I conclude that we should conditionally prefer the latter approach on methodological grounds. This preference is based on the assumption that submitting hypotheses to tests seems to be a crucial part of metaphysical methodology. Since the "direct" approach to event ontology allows for more testing, it should be preferred over the semantic approach.

Keywords: metametaphysics, event ontology, semantics, D. Davidson, J. Kim, D. Lewis.

There is no generally accepted methodological manual for philosophers to study before they start to deal with metaphysical issues. And it is not clear that it would be a good idea to provide such a norm, prescribing how to correctly handle questions concerning the existence and nature of entities. Undoubtedly, however, authors approach these issues in certain ways and it should be possible to highlight them in order to note differences between various metaphysics and their methods or styles. In some cases, the applied approach is

openly stated and even defended by the author, in others, it needs to be uncovered and made explicit.

In this paper I focus on two approaches[1] to the ontology of events – the first one, used by Donald Davidson and the second one, employed by Jaegwon Kim and David Lewis. I discuss mainly how these particular authors deal with the issue of existence and the nature of events, but maybe their positions can also be seen as representing two general ways to do metaphysics. First, I present their ideas and argue that their approaches differ. Second, I consider whether one of them has a shortcoming the other is able to avoid. Finally, by making use of a general observation concerning metaphysical methodology, I state a conditional preference for what is going to be called the "direct" approach to events. This preference is based on the assumption that submitting hypotheses to tests seems to be a crucial part of metaphysical methodology. Hence, the approach that allows for more testing is to be preferred.

Sometimes there is a distinction made between authors taking metaphysics to be a study of reality as such and those who instead take it to study the conceptual frameworks which account for reality. The authors discussed in this paper probably fall into the latter group because they examine events postulated by our theories rather than events as such. So even if sometimes I say what the given author thinks about events, it should not be taken literally, but as a claim about events postulated within a theory. On the other hand, in case an objection is made that the authors discussed in the paper in fact focus on events as such and not on our conceptual schemes, opponents may rephrase most of what I say accordingly – the main point of the paper can be made irrespective of how one interprets the authors concerning this issue.

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[1] By "approach" I do not necessarily mean some kind of strict method, but rather style, as it will become more obvious later in the paper. A boundary between style and method, however, might be permeable.

1   Two Ways to Approach Events

At the beginning of the 20th century several philosophers (e.g., B. Russell and L. Wittgenstein) shared the view that extra-linguistic reality and its nature are somehow linked with language. Reality shows itself in language and the structure of language reflects the structure of reality. But, if this is the case, a reasonable way to study the nature of reality would be to study it via its proxy – language. Of course, the view that language straightforwardly copies reality has been criticized in various fields of philosophy (e.g., in philosophy of science by K. Popper, T. Kuhn), but the general idea of the bond between reality and language did not go away. So, even in the second half of the 20th century, an attempt to approach reality indirectly, whatever that might mean, but using the logical analysis of language was quite popular.

One may find the statement of this view in Quine's influential paper "On What There Is" (1953). In a nutshell, Quine says that in case we want to find out what types of entities our theory presupposes, we just need to clarify which entities figure in the domain we quantify over. For instance, if we say that "All people in this room are smart", we seem to be quantifying over the domain of individuals, so our theory containing such a statement commits us to the existence of individuals. Of course, the situation might be more complicated, because if we say "All colors in this painting are bright", we might be viewed as quantifying over the colors (properties), as well as over the dots (individuals), in case we accept the paraphrase "All colored dots in this painting are bright". The details of an appropriate wording might become a controversial issue, but the point is that the right logical structure of our statements indicates what there is according to the given statements. Basically, this idea is echoed in the work of Donald Davidson.

1.1   Davidson on Events

Davidson's account of events is one of the well-known theories opening the whole debate on events.[2] In his paper "The Logical Form

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[2]   The whole discussion of events in the 20th century is summarized in Simons (2003) and Casati - Varzi (1997).

of Action Sentences" Davidson examines the logical form of statements about action. Facing the problem[3] how to account for the logical relations between statements such as (1) "Jones buttered the toast" and (2) "Jones buttered the toast in the bathroom" he proposes to introduce a variable for events. He claims that we shouldn't analyze (1) and (2) in a usual way

(1*) Buttered (Jones, the toast)
(2*) Buttered-in (Jones, the toast, the bathroom)

as statements about the relations between individuals because then it is difficult to account for the fact that (2) entails (1). Different predicates – a two-place predicate in (1*) and a three-place predicate in (2*) – make logical derivation problematic. Moreover, if approached in this manner, there would appear countless different predicates, for instance "buttered-in-with", "buttered-in-at" and that seems a bit puzzling. According to Davidson, we should, instead, treat these statements as existential claims about events, i.e. we should analyze them as including a place for an event variable:

(1**) There is an event e such that e is a buttering of the toast by Jones.
(2**) There is an event e such that e is a buttering of the toast by Jones and e is in the bathroom.

Following this suggestion it is easy to derive (1) from (2) and so the problem is solved. Davidson also applies basically the same treatment to other areas of natural language, such as causal claims and statements containing adverbial modifiers. (For instance, he claims that singular causal statements are about relations between events.) So it is possible to conclude that Davidson answers the crucial question how to interpret significant parts of ordinary language by postulating ontology of events.

As noted by some authors (see Kim 1976; Lepore 1985), Davidson is primarily interested in the semantics of some types of statements such as action statements, statements with adverbial modifications

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[3] The problem was pointed out by A. Kenny and named as "problem of the variable polyadicity of action verbs".

and causal claims. He is concentrating on the semantic analysis of these parts of natural language and he admits event ontology to help him in his semantic considerations. As Davidson says in connection to actions which on his account fall into the category of events: "[m]uch of our talk of action suggests the same idea: that there are such *things* as actions..." (1967a, 108). Or later on: "... our common talk and reasoning about actions is most naturally analyzed by supposing that there are such entities" (1967a, 109). Moreover, at several places in his writings he openly formulates his reason behind postulating events:

> There remains, however, a more direct consideration (of which the others are symptoms) in favour of an ontology of events, which is that without events it does not seem possible to give a natural and acceptable account of the logical form of certain sentences of the most common sorts; it does not seem possible, that is, to show how the meanings of such sentences depend upon their composition. (1969, 160)

> But the assumption, ontological and metaphysical, that there are events, is one without which we cannot make sense of much of our most common talk; or so, at any rate, I have been arguing. I do not know any better, or further, way of showing what there is. (1967b, 162)

Therefore, Davidson proposes a semantic theory of certain statements and he embraces ontology of events because the existence of such entities is useful and necessary for his semantics. In a sense, Davidson seems to be interested in the topic of events merely due to the fact that events are required by the proper analysis of natural language.

Even his crucial claims concerning the metaphysical nature of events appear to be just consequences of his semantic views. As E. Lepore (1985, 157) points out, since Davidson quantifies over events in a similar fashion as it is done over physical objects, his events are conceived analogously as spatiotemporal particulars. Furthermore, it is possible to speculate that Davidson's insistence on the irreducibility of events to individual objects is partly motivated by the fact that, if events were reduced to objects, then the variable for events would probably have to be abandoned and his analysis of action statements would have to be dismissed as well. Finally, he also seems to assign to events the status of causal relata due to the fact that they provide the best analysis for the singular causal statements.

Let me summarize what Davidson has to tell us about the existence and nature of events (some of the latter points may be viewed as based partly on a biased but, I believe, not implausible interpretation): 1. Events exist, because they are needed for our understanding of natural language. 2. They are spatiotemporal particulars, because event variables are similar to variables for individual objects, and the latter are spatiotemporal particulars. 3. Events are ontologically equal to objects, because otherwise we wouldn't need a further variable for them. 4. They are causal relata, because singular causal statements take them to be such.

Even if the actual Davidson's reasons differed from those suggested by the last two points, I believe that at least the first point fairly captures what Davidson says in the quotes above and in his works in general. Davidson makes his ontological commitment to events because he needs them to quantify over. His semantics simply forces him to let them enter into his ontology. And even further views on the nature of events seem to be motivated by his semantic points.

One may even claim that Davidson, in fact, is not doing any metaphysics at all.[4] Or, at least, that he is not doing (sufficiently) independent metaphysics, because, as it was stated above, he is interested merely in the metaphysical consequences of his semantic views. But is this diagnosis fair enough? Well, it is obvious that these "accusations" are based on certain presuppositions – which Davidson need not share – concerning what metaphysical enterprise should look like. The diagnosis assumes that there is some kind of important difference between semantics and metaphysics. And that Davidson fails to distinguish properly between them because *he derives his metaphysics from his semantics*. The diagnosis assumes that, if metaphysics were done in the proper way, one would have to provide some separate metaphysical views and not to assign this label to certain semantic consequences. However, Davidson does not think it is necessary (maybe not even possible) to split metaphysics from semantics. Indeed, Davidson seems to conceive of metaphysics as a part of semantics. As is obvious

[4]   Kim says that Davidson mostly doesn't provide metaphysics of events but he is more interested in the logical form of certain sentences. According to Kim, Davidson's real metaphysical topic is identity condition (1976, 38).

from the above quote, he does "not know any better, or further, way of showing what there is", than to postulate entities that help make sense of language. Therefore, on Davidson's view, at least in the case of events, we should first look at language, then decide the proper logical form of our claims, and finally admit the entities needed. On this type of *semantic approach to metaphysics*, this is the way to find out what there is and the nature of existing things. This is the way to do metaphysics.

1.2   Kim and Lewis on Events

Although the semantic approach to events is still popular in the literature (cf. Higginbotham – Pianesi – Varzi 2000), it is far from exclusive. Some authors deal with the topic of events in a more straightforward fashion. Let me call this approach, which I plan to discuss in this section, the "*direct" approach* or "*direct" metaphysics*. The label "direct" should not, however, be understood literally, because the directness of this approach is limited.[5] For the moment it may suffice to characterize it negatively as an approach that does not start with the examination of ordinary language or with the semantic analysis of certain types of statements. Authors who prefer this way usually announce that events are needed for some other theory (most often a theory of causation or explanation), probably they add that events are also accepted by common sense, and they proceed to discuss their nature. This type of approach may be found in the works of Jaegwon Kim and David Lewis.

In his early paper, from 1969, Kim simply states that events are not linguistic entities, that they would exist even if humans did not, and that "[a]ll this is surely obvious and trivial" (1969, 198). So he directly endorses the idea that there are events and he takes them to be useful for theories of causation and explanation. Furthermore, the latter consideration also influences his views on how events should be con-

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[5]   Some may prefer to call as "direct" the metaphysics that attempts to provide interpretation of theories drawn from fundamental physics. However, this type of metaphysics (cf. works by J. Ladyman, R. Healey or T. Maudlin) is not the topic of this paper.

strued. Kim thinks an event is constituted by a substance, a property and a time just in case property *P* is exemplified by substance *S* at time *t*. Thus an event is the following triple [*S*, *P*, *t*] (Kim 1976, 35). (Or more substances exemplify polyadic properties/attributes at some time.)

Standard interpretation takes his account to be one of the most fine-grained, which means that where others would have one event, Kim has many more. This is the consequence of his view on identity of events (events are identical if and only if they have the same constituents *S*, *P* and *t*) combined with the possibility to multiply properties. For instance, if the properties *walking* and *walking slowly* are distinguished, then John's walking at 4pm and John's walking slowly at 4pm are different (although Kim says it doesn't necessarily mean completely distinct) events. On a more coarse-grained view, for example Davidson's, the difference might be only in our descriptions. Both expressions "John's walking at 4pm" and "John's walking slowly at 4pm" might refer to the same event, the only difference being that the second event-name provides us with a more detailed description. Kim, however, doesn't think multiplication of events is problematic (1976, 46). Moreover, his approval of a fine-grained view also seems to be motivated by the fact that he takes events to be objects of explanation. As he says "...we are interested in events primarily insofar as they are objects of explanation and relata of causal relation" (1969, 213). Since we may need different reasons to explain why John was walking (because somebody stole his bike) and why he was walking slowly (because he was worried to get back home without his bike), these are different events.

Lewis adopts a different theory of events, but his way of approaching this topic is similar to that of Kim. Since Lewis has previously presented his views on causation and explanation in terms of events, he feels obliged to characterize events as well. On his account events seem to exist because they are used in other theories. Moreover, their nature needs to be of the right kind for them to function within these theories. As Lewis himself admits: "In this paper I shall consider what sort of theory of events I need to go with my theses about causation" (1986, 243).

I shall provide three examples to document that the nature of Lewisian events follows the needs of his counterfactual account of causa-

tion. On Lewis' view an event c causes an event e just in case e counterfactually depends on c or on some intermediate event d which depends on c. Since causation is characterized in terms of counterfactual dependence he needs to be able to assign truth-values to counterfactuals such as "If c had not occurred, e would not have occurred". Roughly, the counterfactual "If c had not occurred, e would not have occurred" is true if a possible world where both antecedent and consequent hold is closer to the actual world than a possible world where the antecedent holds but the consequent does not. On this picture, however, all events must be contingent spatiotemporal entities that do not occur in every possible world (Lewis 1986, 243). Otherwise, it would be difficult to evaluate counterfactuals claiming that, if cause c had not occurred, effect e would not have occurred either. So, for instance, if the effect-event were necessary and had occurred in every possible world, it would not have been possible to get a possible world in which both c and e had not occurred.[6]

Lewis says "An event is a property, or in other words a class, of spatiotemporal regions" (1986, 245). This class contains one region from the actual world as well as regions from those possible worlds in which the given event occurs. According to Lewis, two events can occur in exactly the same region in some possible worlds but they cannot occur in exactly the same region in every possible world in which they take place. He claims there is "no plausible case of two events such that, necessarily, for any region, one occurs in that region iff the other does. Two such inseparables would be causally indistinguishable on a counterfactual analysis of causation, so it is hard to see how my treatment of causation could possibly need them both" (1986, 245).

The last example concerns the issue of different vs. distinct events. Lewis admits that John's walking and John's walking slowly are different events but he warns they are not distinct. In fact he defines the logical relation between events and claims that John's walking slowly implies John's walking because it is necessary that if the first event oc-

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[6]   If for example global warming was such a necessary event, it wouldn't have been caused by anything – and it seems dubious to have events without causal history – because counterfactuals such as "If there had been no pollution, there would have been no global warming" would be false. Only possible worlds with no pollution and global warming exist, so they are automatically closer to the actual world.

curs in some region, then also the second one occurs in the same region (Lewis 1986, 255). But then it holds that, if the second event had not occurred, the first event would not have occurred either. To avoid the awkward conclusion that the second event caused the first one, Lewis says we may differentiate these two events but we should not take them to be distinct. Since on his counterfactual theory only distinct events stand in causal relations, counterfactual dependence between these two different but not distinct events is noncausal (Lewis 1986, 256).

Bearing in mind what was said about Kim and Lewis, it is possible to generalize the features of the "direct" metaphysical approach to events. On this approach, events are postulated since their existence is intuitive and it is useful to have them for other philosophical theories, mainly theories of causation and explanation. And despite the fact that common sense also plays some role, when it comes to the nature of events, the most crucial consideration is a fit with the needs of the theories which make use of events and with some other, mostly metaphysical, assumptions. This is obvious mainly when authors explicitly modify their views of the metaphysical nature of events in order to avoid problematic conclusions that would otherwise follow from their other philosophical accounts. Most importantly, proponents of this approach do not hesitate to deal with a metaphysical topic, so to say, directly, without asking what the logical form of natural language tells us. From another point of view, however, even they consult consequences of other theories and adjust their views accordingly. Therefore, this approach is direct only in the sense that, in order to get to events, it does not study natural language first.

Now what are the main differences between the semantic approach of Davidson on one hand and the "direct" approach of Kim and Lewis on the other? The crucial, and a kind of trivial difference, is that the semantic approach relies on the semantic analysis of natural language while the "direct" approach does not. This suggests that the difference between these two approaches might be predominantly a difference of style.[7] Moreover, it appears that while the former ap-

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[7]   However, a difference of style may prove to have some crucial consequences for the whole enterprise.

proach, by concentrating on semantic analysis, tries to show *that events exist*, the latter almost automatically presupposes their existence and tries to characterize *what nature they have*. Of course, this might be a simplified picture, but within the semantic view the emphasis is on showing that the logical form requires events, and afterwards events are assigned merely the nature that arises from the semantic considerations. On the other hand, within the "direct" approach, one finds autonomous discussions of such topics as what the constituents of events are, what the essence of events is, how some events include other events, etc. This extensive examination of the metaphysical nature of events is usually done without emphasizing the need to study natural language we use to talk about them.[8]

2   Shortcomings of Semantic and "Direct" Approach

After Davidson proposed how to interpret action statements and statements with adverbial modifiers, several authors objected that either postulating events leads to problems or that these statements could be understood in other, presumably better, ways. Critics argued in two general ways. First, making use of events in the semantics creates problems or even contradictions (Aune 1977; Trenholme 1978). Second, there are other ways to interpret our ordinary language that do not require events (Aune 1977; Horgan 1978). Thus, the critics of the latter type adduced alternative proposals of how to provide a suitable semantics without postulating events (see, for instance, Clark 1970).

These proposals to reinterpret the same parts of natural language using different semantics point to the *problem of underdetermination*. Since there are several, roughly equally plausible, ways to provide a semantics for the same group of statements, the semantic approach to metaphysics seems to be on shaky grounds. The underdetermination

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[8]   A critic may point out that also proponents of "direct" approach need some kind of semantics of their theories. This, however, does not necessarily mean that there is no difference between the semantic and the "direct" approach. Although proponents of "direct" approach presuppose some semantics or other, they do not use the semantic analysis of the language of their theories as an argument to support their account of events. Of course, the whole distinction also depends on how broadly one construes "semantic analysis".

in this area resembles a familiar case of underdetermination empha-
sized in the philosophy of science. Philosophers of science (see, for in-
stance, Rosenberg 2005, sec. 5.5) point to the fact that the choice be-
tween various scientific theories, which try to explain the same subject
of inquiry, is not an easy matter. At first glance, it looks simple: Take
several theories, make experiments, and evidence you get will decide
which one is correct. Unfortunately, it happens that the same evidence
is compatible with different theories and so the selection cannot be
based solely on following the data.[9] Therefore, theories are underde-
termined by evidence.

The underdetermination problem of the semantic approach to
event ontology could be sketched in basically the same fashion. On
the semantic view outlined above, semantics and the logical form of
the parts of natural language indicate ontological commitment. If you
quantify over events, you get event ontology. (Since according to this
position, ontology seems to be part of semantics, for the moment, I
shall not distinguish between them.) As the criticisms of Davidson's
view show, there are alternative semantics/ontologies that are able to
account for the same parts of natural language. More than one seman-
tics/ontology seems to be consistent with natural language, especially
when we take the possibility of paraphrase into account. Natural lan-
guage seems to provide no decisive indication which one of the com-
peting ontologies is correct, because several of them provide more or
less equally good explanations of the same natural language data.
Understanding of what we say seems to require a certain type of onto-
logical commitment, but natural language does not directly and un-
ambiguously tell us what we should be committed to. Therefore, there
is a kind of underdetermination of an ontological theory by the natu-
ral language similar to the one usually discussed in the philosophy of
science.

Obviously, one may try to trivialize this problem and respond to it
in the following way: Of course, several ontologies are going to be
consistent with an interpretation of natural language. We may come
up with whatever types of entities we like – events, absences of

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[9]   Some would call crucial experiments for help, but there are serious doubts that the-
se may in an easy way decide the issue Losee (2005).

events, absences of individuals, vague objects, semi-vague objects, etc. – and, provided they are intelligible, maybe not logically inconsistent, etc., we may reinterpret and paraphrase natural language in such a way that it would yield to even the most bizarre ontology. The argument a proponent of the semantic approach is trying to make is that her semantics is *the correct one*. She wouldn't object to the fact that several ontologies are consistent with natural language, or that several are able to explain it, but she would counter that her semantics provides *the correct explanation*; and that is why it should be chosen.

So the whole underdetermination problem could be avoided if an acceptable analysis is given of what it means to provide the *correct* semantics or the *correct* explanation of (parts of) natural language. *Prima facie*, a correct semantics would be the one that assigns to expressions such types of entities that really exist according to a given theory (analogously for explanation). But clearly, this is unacceptably circular, because, on the semantic approach, the correct semantics should decide what entities exist and not *vice versa*. Thus, if one does not provide a plausible characterization of what counts as a correct semantics, the underdetermination problem seems to hold.

Moreover, if one tries to interpret the semantic approach as saying something about reality as such, then there appears to be another problem. There seems to be a more fundamental worry that something is wrong with the attempt to decide what there is from the surface, or even the logical form, of ordinary language statements. Let me make a few remarks concerning the idea that language may help us decide what there is. In the case of events, the tacit argument used by proponents of the semantic approach may go as follows: Whatever accounts for the (parts of) natural language exists. Events account for the (parts of) natural language. Therefore, events exist. We have an event ontology. Why should we believe the first premise is true? Why is it ruled out to claim that the "thing" that helped us to understand our language doesn't exist? It really looks like a contradiction to say "*X* helped me to settle something, but *X* does not exist". But it is a contradiction only on the prior assumption that language indicates what exists – that by saying "*X* helped me ...", I already assume that the thing "*X*" refers to exists. The assumption itself is under scrutiny, so it seems it should not be used in this context.

Now maybe the whole "more fundamental worry" does not have any independent grounding and it stems just from considering underdetermination. Maybe deriving ontology from language is disturbing only because it is so easy to jump from this idea to the idea that language allows paraphrases and so it is compatible with different ontological proposals. In any case, whether the worry is confused or it has some bite[10] – already the interpretation that the semantic approach tries to account for reality as such is contentious – a proponent of the semantic approach may legitimately ask: But can we do better than to approach ontology from the point of view of language? In the next section, I try to provide a conditional positive answer to this question. But first let me comment on whether the "direct" approach suffers from the same shortcomings as the semantic approach.

Not everybody agrees that causation relates events, or that events are objects of explanation. There are alternative accounts claiming that facts, or maybe statements, are better suited for these purposes (e.g., D. H. Mellor's views on causation, P. F. Strawson's and D. Davidson's on explanation). The existence of these alternative proposals seems to imply a certain type of underdetermination. Once again, the selection of event ontology is underdetermined by theories of causation or explanation, because after suitable revisions on their side we may end up with an eventless ontology which suits their needs.

In addition, if the "direct" approach is viewed as dealing with reality as such, then there may be a worry similar to the "more fundamental worry" articulated with respect to the semantic approach. A critic may object as follows: Something is surely wrong with the attempt to decide the existence and nature of events by following the needs of our theories of causation and explanation. Theories of causation should not decide what reality (events) looks like; instead, they should be adjusted to match with the nature of what exists. Since basically the same type of worry was not settled in the case of the semantic approach, again, we need not decide here whether the objection is

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[10] One way to formulate the worry would be to ask whether language (or its paraphrases) may simply "miss" the reality. That natural language taken literally misses what exists would not be so controversial claim in some quarters, but that even the best paraphrases miss reality might question the possibility of meaningful discussion.

confused or it may have some rationale. The point of introducing the worry is merely to show that the "direct" metaphysics doesn't seem to be better off on this ground. Furthermore, as claimed in the previous paragraph, it suffers from the underdetermination problem as well. Thus, preference for this approach needs to be argued for in some other way.

3   Which Approach is Preferable?

Let me approach the whole issue from a different point of view. The general methodology of metaphysics seems to be, at some level of comparison, very similar to the one used within the empirical sciences. In both areas scholars try to solve problems and therefore they propose hypotheses and submit them to tests. Following Karl Popper, we may take the problem of how they arrive at their hypotheses to be philosophically unimportant. It is of great significance, however, that they test them as severely as possible (Popper 1961). Although particular procedures in empirical sciences and metaphysics will generally vary (to some point they differ already within the empirical sciences), testing itself might be viewed as the thing they have in common.

On this picture, metaphysical views are just hypotheses metaphysicians test. The way to proceed with testing may range from testing the logical consistency of the proposal to assessing its coherence with common sense views, hypotheses from sciences, or metaphysical views. If the work within metaphysics is conceived of in this way, we may try to add some desiderata on testing. Drawing on observations made in philosophy of science, we may require that *metaphysical hypotheses should be submitted to as many and as severe tests as possible*. The more tests hypotheses pass through, the better standing they have. Bearing this requirement in mind, we may arrive at a useful criterion for assessing different approaches to metaphysics. Various frameworks for doing metaphysics may differ in the amount of tests they allow for or in whether they generally encourage testing at all. It might be helpful to compare Davidson's semantic way of doing metaphysics with Kim's and Lewis' "direct" approach with respect to the number of tests they make. The more testing-friendly approach should be preferred. (So, from one point of view, both approaches discussed in this paper use ba-

sically the same method – testing, but from a different point of view, they still differ concerning the way they deal with the issue of events.[11])

One might ask for reasons why we should go for a more testing-friendly way of doing metaphysics. It is possible to argue as follows: First, at least in some circles, it is uncontroversial to claim that the hypotheses that pass through more tests are better off. If this is also the case in metaphysics, it seems reasonable to choose the approach that submits hypotheses to more tests, i.e. that provides them with the opportunity to gradually improve. Second, by testing metaphysical hypotheses we usually learn more about the entities the hypotheses are about. Successful tests may uncover what we did not know before about the natures of these entities. Indeed, one of the reasons for proposing a metaphysical hypothesis appears to be our interest in learning new things about the world. So, we should prefer the approach that helps us find out more in this respect.

In Davidson's works, the hypothesis that there are events is tested by considering how it helps us to understand several parts of ordinary language. Davidson tries to show that this hypothesis assists in making sense of statements about actions, statements with adverbial modifiers and causal claims. All these tests fall into the category of language- or semantic-match tests, because events are examined to see if they provide suitable semantics for natural language. Besides the hypothesis regarding the existence of events, Davidson makes a few claims about the nature of events – in fact, as I argued above, they are usually derived from his semantic views. How does he test these hypotheses? Most of the time they are submitted to the same semantic-match tests. For instance, the view that events are suitable causal relata is sustained because events provide suitable semantics for causal claims. In some cases, Davidson seems to test his views on the nature of events by considering whether they are acceptable by common sense. But even these situations may be interpreted rather as testing whether events with such and such nature fit our ways of speaking about them (Davidson 1979).

[11]   As it was pointed out to me in the discussion, they may differ also in data they try to account for. So there might be also a difference in subject (accounting for natural language vs. accounting for what is intuitive).

On the other hand, Kim and Lewis discuss various aspects of events and, as a consequence, this leads to a number of *different* tests. Let me try to interpret their examinations of various aspects of events as instances of testing. In metaphysics, if a certain kind of entity is postulated, it is usually expected that a proponent of such an entity specifies whether the entity is simple or, if not, what it consists of. When Kim and Lewis outline event constituents, they also show that their event ontologies are able to fulfill such a requirement. In other words, their theories pass the test of explaining constitution of the entities they posit. Moreover, their particular proposals are examined to see if they correspond with common sense. In the case of Kim, the constituents are a substance, an attribute and a time; and this account seems to be compatible with the intuition that, whenever an event occurs, there is something (a substance) that is going through some development (attribute) at some time.

Another common metaphysical requirement is to provide identity conditions for the postulated entities. Kim, by offering an identity condition, tries to show his theory is able to fulfill this task. (Actually, Davidson also provides such a condition, but the way he approaches the issue is very instructive. He is trying to give a semantic ring to the whole problem and so he is trying to provide a truth-condition for the identity statement "*a*=*b*", where "*a*" and "*b*" are different names of events.) Another metaphysical view has it, and common sense seems to agree, that entities change but some changes mean only that basically the same entity somehow evolves while others mean that the entity ceases to exist. Both Kim and Lewis face this issue in their discussions of what elements are essential to events, so they at least attempt to test their views on this point. Their further inquiries into the metaphysical nature of events, e.g., whether events have parts, properties, whether there might be disjunctive events, etc., could be interpreted in a similar way as attempts to show that their views pass through various metaphysical requirements and are compatible with some common sense opinions.

In addition, Kim and Lewis examine how events should be viewed in order to be useful for theories of causation and explanation. In a sense, they try to find out whether one of their hypotheses, concerning events, is consistent with other hypotheses they want to endorse. Of

course, proponents of events do not always, maybe not even usually, look at two theories and simply observe that they are compatible. Mainly Lewis seems to modify his views on the nature of events, so they fit his counterfactual theory of causation. Some might find it as an instance of an inadmissibly *ad hoc* modification of a theory (such modifications are severely criticized in the philosophy of science), but the whole issue is more complicated. In metaphysics, any modification to the nature of a posited entity[12] has some consequences, which can be further tested. Since the modifications Lewis makes could be examined in some other tests, they appear not to be *ad hoc* after all.

Thus, on the view of metaphysics suggested in this section, testing may take different disguises. Even discussions, arguments, or attempts to modify one's view might sometimes count as instances of testing. Very vaguely, tests are usually parts of an effort to solve some problem. Of course, breathing, writing, etc., might be "parts" of an effort to solve a problem, but in a different sense. Unfortunately, I might not be able to state precisely what would count as a test, but hopefully the examples I used at least indicated which direction to go. So, instead of trying to explicate what suitable tests are, let me summarize what types of tests we encountered in the discussion of the semantic and "direct" approaches to event ontology.

Davidson seems to concentrate on the "semantic tests". He tries to show that the hypothesis of the existence of events helps to make sense of several parts of natural language. Then, he attempts to show that events could be provided identity conditions and that they are accepted by common sense. These latter tests, however, could be introduced – and sometimes even Davidson appears to introduce them – in a more semantic fashion, which means they would constitute a part of the semantic tests.

[12] The modification I am talking about concerns the nature of the whole category. Therefore, if the modification is made merely in a particular case – for instance, if an account says events are changes, but this particular unchange counts as an event nevertheless – it is obviously not the type of modification I point at. Moreover, one must bear in mind that genuine testing should allow for the option that if a metaphysical hypothesis does not pass the test (and there are no viable or fruitful modifications), it will be rejected.

On the other hand, Kim and Lewis provide various testing opportunities. They try to show that the existence of events is helpful for theories of causation and explanation and also that it is approved by intuition. Moreover, they discuss in detail the nature of events. In their discussions they examine whether their theories of events fulfill several metaphysical requirements (to provide constitution, identity conditions, etc.), whether they are intuitively acceptable and whether they are consistent with other theories, mainly of causation. Primarily, their examinations of various metaphysical requirements help to test events quite thoroughly and also enable them to specify the nature of events. And this is obviously a very welcome result for the ontology of events. In contrast, most of the semantic tests Davidson makes are very similar and they are used for testing the existence hypothesis. In fact, we do not learn a lot about their nature from him.

Therefore, I conclude that Davidson provides fewer types of tests – most of them are just semantic tests of existence hypothesis. Although the majority of Kim's and Lewis' tests concern how events fulfill certain metaphysical requirements, they are tests that help to specify different aspects of the nature of events. In Davidson's tests we repeatedly find out that this and that part of natural language suggests that events exist, whereas in the latter authors, we learn what constitution events have, what their essence is, what their mereology is, etc. Therefore, the approach of Kim and Lewis fares better with regard to the testing-friendly criterion.

Does it mean that *in general*, the "direct" approach is to be preferred to the semantic one? Is it common to all instances of the semantic approach to event ontology that they allow for less testing (fewer types of tests)? It seems to me that it would be at least awkward, if not impossible, to test several questions concerning the nature of events in the semantic fashion. How should one proceed, for instance, in the case of the mereology of events? "What are the truth-conditions of 'John's step is a part of his walk'?" Or of the essences of events: "What is the semantics of 'If the forest fire set by John was set by Peter, it would have been a different fire'?" Despite the fact that, in the past, it proved to be very fruitful to approach several philosophical issues via language and its semantic analysis, in the case of some metaphysical issues, it would seem to be as helpful as to tie your shoes with a pair

of pliers. But, although I have doubts, maybe there are some sophisticated and, at the same time, profitable ways to handle metaphysical issues within semantics.[13] Therefore, my final point needs to be conditional. If the semantic approach generally proves to be less testing-friendly than the "direct" one, then the latter approach to the metaphysics of events (maybe also to some other topics or, even, to metaphysics generally) should be preferred on methodological grounds.

In conclusion, the case of the ontology of events shows that we should expect only revisable hypotheses from metaphysics. Despite the fact that this type of critical metaphysics, based on severe testing, cannot provide us with proofs, it may help us to examine our hypotheses and to find out more about the entities they postulate. In order to test our metaphysical hypotheses as systematically as possible we should look for approaches that fare better on this ground.

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[13]   In the discussion I was provided with an example of possible semantic test concerning mereology of events.

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