

HOW SERIOUS IS OUR ONTOLOGICAL COMMITMENT TO EVENTS AS INDIVIDUALS?

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Abstract

This paper aims at discussing the usage by Davidson as to events of Quine's criterion of ontological commitment. According to Davidson, we are ontologically committed to the existence of events as individuals as we employ literally terms such as 'Caesar's death', for instance. Davidson extends this analysis to actions as well, since actions are human events. One of the consequences of this view is that psychology deals with individual events in a non-lawful way. An alternative view is here proposed, based on a complementary criterion, namely ontological density, according to which from the point of view of a given theory, we can always distinguish between events (or phenomena) and individuals (entities) among the overall occurrences described by the theory. Some consequences of this alternative view of psychology as a science dealing lawfully with general human events are also explored here.

Introduction: Quine's Axe — in Davidson's Hands

The question in the title of this paper is given a direct answer by Davidson who, in this connection, follows Quine's criterion of ontological commitment. If our talk about events such as human actions is to be interpreted literally, says Davidson, we are ontologically committed to the existence of events, in addition to material bodies, for instance. In this case, events are the individuals we talk about. Our language furnishes us terms denoting such individuals, such as 'Caesar's meeting with Brutus in the Forum', 'the stabbing of Caesar by Brutus', etc. Any other deviant interpretation would imply not to take seriously — i.e. literally — our talk about human

actions and the terms denoting them.

Apparently, Quine's criterion of ontological commitment is obligatory whenever we are supposed to use language literally to denote certain entities and describe them, as he argues for in his classic "On What There Is" (Quine 1980 [1953]). One of the consequences of adopting such a criterion is to rule out useless metaphysical discussions, to give up trying to figure out the structure of the world, and to stop trying to set apart reality from fiction. The criterion does the job, and categories such as those ones just referred to become internal to our talk and are theory dependent categories.

However, that criterion leaves certain cases without a good solution, even though we are conscious that we are just dealing with our practice of language and our use of certain terms. A case at hand is to compare our talk about events, according to Quine's criterion, with the talk about certain individuals or entities that, from the point of view of a given theory, exist. I give just below an example. Thus, Quine's criterion of ontological commitment can't be taken without reference to his own thesis of ontological relativity (Quine 1969).

This is another feature of Quine's thought I resort to, which is useful to correct indiscriminate and even counter-intuitive uses of the criterion of ontological commitment. Consider, for instance, the possibility of reifying, which is a subject especially significant in discussions on the foundations of the social sciences and human action, exactly the area in which Davidson employs Quine's criterion. Thus, the relativity to a given theory prevents us from such kind of metaphysical unwelcome consequences.

Suppose a physical theory — similar to Newtonian mechanics — dealing with the behavior of macroscopic bodies. One of that theory's models consists in two billiard balls, the first one being at rest relative to a given point of reference, the second one moving in a trajectory leading to a collision with the first one. In addition, the model invites us to suppose that those balls are rigid spheres, and that after colliding the moving ball stops and the resting ball begins to move. The model's setting contains at least two individuals, the two balls, and at least an occurrence, the collision between them,

in which, according to the theory, the movement of the first ball is communicated to the second one.

I am considering here what Davidson would be willing to call a physical event, an event referred to by the term ‘the collision between those two balls’. For Quine, those balls belong to that theory’s ontology, and they are in a relation that can be described by the theory. According to Davidson’s use of Quine’s criterion of ontological commitment, however, our talk about such a physical occurrence commits us to the existence of physical events as individuals. That is to say, strictly speaking, there are at least three entities, namely the two balls and the collision between them.

Now, from the point of view of a physicist who formulates or accepts that theory, and who studies the setting corresponding to the model, the question is “How serious is the assertion that in addition to the two balls there is a third entity, namely the collision between them?” Surely, that physicist wouldn’t believe that he talks of three individuals, but two individuals and a relation between them. The physicist would feel quite uncomfortable in the use of Quine’s criterion. However, if constrained by a philosopher to become conscious of his ontological commitments, the physicist can acknowledge, after all, that his talk imply the existence of collisions between the balls. But, in this case, he could be apt to make a distinction between two kinds of existence.

The philosopher, in his turn, can even be sympathetic with the physicist’s rising ontological concerns, but he considers that Quine’s criterion, acquiesced in by Davidson, doesn’t allow us to make that further distinction. According to Davidson, both the balls and their collision are individuals — and that is the end of the discussion. Indeed, we can slice a cheese with an axe or with a surgeon’s scalpel or even with a kitchen knife; of course, the last possibility is the ordinary way of doing it. In this paper, I compare what Davidson is trying to do with Quine’s criterion to the situation of slicing a cheese with an axe. It is up to the reader to decide what the alternative criterion to be proposed here is like, and whether it is like to slice a cheese with a knife, or rather with a scalpel. To the ordinary purposes of life, such as preparing a sandwich, if knives are nearby, how serious can be a person who wants to slice a cheese

with a scalpel or with an axe?

Especially as to human action and the foundations of psychology, exactly Davidson's concerns, it would be in order to ask how close — or how far — is then his philosophy of psychology to the ordinary purposes of life, i.e. to human action itself. In the next section, I review Davidson's arguments for the idea that events are individuals. In section 2, I propose an alternative criterion, by means of which I seek an ontological analysis more improved than that one by the criterion of ontological commitment. In section 3, I briefly review Davidson's philosophy of psychology. In the last section, I propose an alternative analysis of human action and I briefly discuss, from that perspective, the foundations of psychology and the social sciences.

1. Davidson and the Individuation of Events

In his discussions on the individuation of events, Davidson maintains not only that actions are individuals but that, consequently, psychology is different from physics, since physics deals with general cases, according to laws, whereas psychology deals with singular cases and is incapable of achieving strict causal laws.

Davidson is initially concerned with the logical form of action sentences, as he discusses in essay 6 (and in the other essays of the second part) of his *Essays on Actions and Events* (1980). As opposed to the analysis due to Antony Kenny, Roderick Chisholm, G. H. von Wright e Hans Reichenbach, whose difficulties Davidson points out in his discussion, he presents his interpretation according to which action verbs are identified with (action) predicates, in which there is a place for events (Davidson 1980, p. 119). For instance, the sentence 'I drove my car to the tunnel' would be translated into the following: 'there is an event x such that x is the driving by me of my car and x is to the tunnel'.

According to Davidson, this theory has the great advantage of allowing a standard interpretation of truth for action sentences, using Tarki's definition of truth. The price to pay, as Davidson himself also acknowledges, is obviously that events must count as

individuals.

In the first place, this account implies the distinction between facts and events, which is not a common practice in the literature. The terms ‘fact’ and ‘event’, customarily, are interchanged without further reflection. In addition, some philosophers do identify facts and events, such as Austin, who is mentioned by Davidson. Austin maintains that phenomena, events, situations and states of affairs, all of them, are facts (Austin 1979 [1961], p. 156). According to this approach, says Davidson, both events and facts correspond to whole sentences. Davidson denies this thesis, and argues as follows:

facts, if such there are, correspond to whole sentences, while events, if such there are, correspond to singular terms like ‘Caesar’s death’, and are quantified over in sentences such as ‘Caesar died.’ (Davidson 1980, p. 135.)

In this connection, Davidson says he is following Ramsey’s arguments (1950, pp. 138ff). In this case, maintains Davidson, ‘died’ (in ‘Caesar died’) is taken as a two-place predicate, with a place for ‘Caesar’ and another one for a variable that ranges over events. Consequently, there is an event that is the dying by Caesar, and which corresponds to the singular term ‘Caesar’s death’. In addition, the whole sentence — ‘Caesar died’ — is an existential sentence. According to this interpretation, argues Davidson, there is no problem in making the singular term ‘Caesar’s death’ correspond to a particular event; and this is how we can “treat events seriously as individuals,” says Davidson (1980, p. 135).

However, what good reasons could we have to introduce an ontology of events along these lines? Davidson says that this is the only way to solve a simple, recurring problem, which can be stated as follows. Intuitively, the sentence ‘Brutus stabbed Caesar in the back in the Forum with a knife’ entails ‘Brutus stabbed Caesar in the back in the Forum’, and both entail ‘Brutus stabbed Caesar in the back’, and all these entail ‘Brutus stabbed Caesar’. Yet, the ordinary way of symbolizing these sentences in a first order language reveals no logical connection between them (Davidson 1980, p. 136).

This problem is raised not only as to action verbs, says Davidson; and it can be solved by his approach as follows: 'There exists an event that is a stabbing of Caesar by Brutus event, it is an into the back of Caesar event, it took place in the Forum, and Brutus did it with a knife'. This formulation, in its turn, can easily be symbolized in the way referred to above, revealing the logical form of the original sentence.

However, in the second place, Davidson's approach involves also the problem of individuating events. In this regard, he argues as follows:

I am myself inclined to think we can do as well for events generally as we can for physical objects generally (which is not very well), and can do much better for sorts of events, like deaths and meetings, just as we can for sorts of physical objects, like tables and people. (Davidson 1980, p. 137.)

According to Davidson, this problem consists in furnishing criteria to say when a sentence (referring to a given event) is true (1980, p. 146). To this purpose, it is useful to know the logical form of sentences such as those ones mentioned above. However, Davidson acknowledges that the problem of finding out the logical form of sentences is but the first part of the ontological problem that is to be faced. In this connection, he comments as follows:

On the score of ontology, too, the study of logical form can carry us only a certain distance. If I am right, we cannot give a satisfactory account of the semantics of certain sentences without recognizing that if any of those sentences are true, there must exist such things as events and actions. Given this much, a study of event sentences will show a great deal about what we assume to be true concerning events. But deep metaphysical problems will remain as to the nature of these entities, their mode of individuation, their relations to other categories. Perhaps we will find a way of reducing events to entities of other kinds, for example, sets of points in space-time, or ordered n-tuples of times, physical objects, and classes of ordered n-tuples of such. Successful reductions along these lines may, in an honoured tradition, be advertised as showing that there are no

such things as events. As long as the quantifiers and variables remain in the same places, however, the analysis of logical form will stick. (Davidson 1980, p. 146.)

In addition to accounting for the logical form of event sentences, what reasons could we have then, Davidson himself asks, to take seriously events as entities? It is well known that he maintains that a good reason is to have a suitable theory of action; and this is not the case if we can't talk literally of the same action under different descriptions (Davidson 1980, p. 164). Now, there are no descriptions or redescrptions without certain entities that are described and redescrbed. Considering the specific case of action and the human mind, Davidson maintains that, such as when we identify a mental event with a physiological one, to maintain or to deny theories of that kind (including Davidson's anomalous monism) is possible only if events are taken as individuals (Davidson 1980, p. 165).

In order to cope with that problem Davidson resorts again to Quine, adopting the perspective expressed in the dictum "No entity without identity." Thus, what are the necessary and sufficient conditions to identify events? An answer to this must fill in the blank in the following (Davidson 1980, p. 172):

If x and y are events, then $x = y$ if and only if ____.

Davidson discusses many different answers to that question, especially Strawson's theory in *Individuals* (1959). Davidson considers five answers, rejecting the first four, and arguing for the last one, which are as follows (Davidson 1980, pp. 173ss):

- (1) events as changes in substances: if an event a is a change in some substance, then $a = b$ only if b is also a change in the same substance;
- (2) events located in the same place: two events are identical only if they are located in the same place;
- (3) events located in the same moment of time: if two events are identical, they consume identical stretches of time;

- (4) events located in space and time together: if two events are identical, they occupy exactly the same time and the same space;
- (5) events as causes and effects: two events are identical if and only if they have exactly the same causes and the same effects.

Davidson gives a number of reasons to dispose of the first four alternatives, but it seems to me that it is not necessary to review his arguments in detail. As for the last option, which Davidson chooses, he acknowledges that it contains some circularity, but he argues that certainly such circularity is not formal, since the criterion needed can be formulated as follows (Davidson 1980, p. 179):

(x = y) if and only if ((z) (z caused x iff z caused y) and
(z) (x caused z iff y caused z)).

On the right of the biconditional, no identities appear, and this means that any circularity doesn't yield a logical catastrophe to the analysis.

Notwithstanding, that circularity is deep and put the doctrine in jeopardy. In essay 7 of his book, "Causal Relations," Davidson explains causes and effects, in their turn, in connection with the notion of event. In addition, even taking his criterion not only as correct but also as useful, Davidson acknowledges that it is not the only possible way to identify events. He comments:

Perhaps sameness of causal relations is the only condition always sufficient to establish sameness of events (sameness of location in space and time may be another). But this should not be taken to mean that the only way of establishing, or supporting, a claim that two events are identical is by giving causal evidence. On the contrary, logic alone, or logic plus physics, or almost anything else, may help do the job, depending on the descriptions provided. What I do want to propose is that the causal nexus provides for events a 'comprehensive and continuously usable framework' for the identification and description of events analogous in many ways to the space-time coordinate system for material objects. (Davidson 1980,

pp. 179–80.)

To sum up, Davidson's argument here is that his criterion to identify and describe events is better than other ones because, ultimately, it does the same job as the criterion based on space-time coordinates does in order to identify material bodies. Now, I argue below that a criterion for the latter purpose, in a certain way, is also a criterion for the former, that is to say it identifies events as a kind of relation between material bodies. Thus, Davidson is perhaps multiplying the entities beyond necessity.

Davidson's argument, after all, is that, supposing that the criterion of ontological commitment is correct, even if we remember that it is applicable always in connection with a given theory, we are committed to the existence of events as individuals, since the best theory at hand leads us to do so. Now, I argue in the remainder of this paper that there are suitable alternatives in both respects, that is to say as to both the criterion of ontological commitment and a theory of action.

2. The Criterion of Ontological Density

Let me introduce a criterion capable of helping the physicist in the above discussion. I hope this criterion might help also those who want to talk of human action, especially in the area of empirical psychology, without any obligation of accepting some consequences of Davidson's account, such as the existence of human actions as individuals.

I don't intend my criterion to replace Quine's, but to complement it in those cases where his criterion doesn't suffice to make rather accurate distinctions. Before I introduce my criterion, let me propose the following uses for a number of terms. From a phenomenological point of view, there are certain occurrences (or happenings or episodes). A first sort of occurrence is events (or phenomena), such as those terms are used in scientific theories. Another sort of occurrence in the world described by a given theory is entities (or things). Relations are events or phenomena, in-

volving entities or things. Individuals are put in relations in virtue of their properties (or capacities).

Such conventions deviate from the use by some philosophers, and correspond to others' use. Particularly, the term 'fact' (I referred to in section 1 as discussed by Davidson in connection with Austin's and Ramsey's interpretations) is used here with a specific - but also well supported - meaning, as an equivalent for 'event' and 'phenomenon'. From a strict linguistic viewpoint, in response to Davidson's arguments against Austin and for Ramsey, I don't take a term such as 'Caesar's death' to be a name of an event, as Davidson does, but as an alternative way — allowed by ordinary language — of saying the same as 'Caesar died'.

This point takes us back to an already mentioned issue: the unwelcome reifications. To suppose that the noun 'death' denotes an entity (in this case, according to Davidson, an event) — and that, therefore, 'Caesar's death' names an individual event — seems to me to be similar to the sort of reification Carnap denounced (1959) as regards metaphysics. Heidegger, for instance, assumes that the term 'nothing' — occurring in certain current expressions and sentences (such as in 'there is nothing in that room') as an equivalent for the negation particles ('no', 'not') - refers to an entity. As I argued above, this kind of reification might be an unwelcome consequence of an indiscriminate use of the criterion of ontological commitment.

If the meanings of the terms I proposed are acceptable, provisionally, then we can say that Quine's criterion of ontological commitment, such as it's used by Davidson in the case of human action, reveals our commitment to the existence of occurrences, but not necessarily individuals. Maybe it is unusual to talk of the existence of occurrences, and probably it is more usual to say that the criterion of ontological commitment points to occurrences, or, more exactly, reveals that we identify and describe occurrences. After all, this is due to some ambiguity of the verb 'to exist', and my criterion is intended to lessen it. In other words, 'to exist', as applied either to entities or to events, doesn't have the same meaning.

Before I discuss this issue in detail, let me get back to the example of the billiard balls. Using the criterion of ontological com-

mitment, that physicist must recognize that both the balls and the collision between them are occurrences (in the sense referred to above). In addition, that physicist identifies the balls as individuals, entities or things, and the collision between them as an event, phenomenon or relation. Now, the philosopher questions the physicist as follows: “Based on which criterion is such a distinction possible?”

The question is rather pertinent, and the physicist can then be aided by the following criterion of ontological density: occurrences of type 1 (entities, things, individuals) are ontologically denser than occurrences of type 2 (events, phenomena, relations). The difference between the two types is that we can assign properties to occurrences of type 1, but not to occurrences of type 2. That is to say, according to a certain theory, literally speaking, irreducible occurrences are given properties. According to the theory, it is not possible to show that irreducible occurrences are relations between further entities. So, irreducible occurrences do count as individuals.

The idea of such a criterion of ontological density — identifying ontological nodes in the world described by a given theory — is reminiscent of a distinction put forward by Claude Bernard (1879, pp. 461–2) in the nineteenth century. According to the founding father of experimental physiology, a scientific program, at each moment of its historical development, always distinguishes between complex and simple facts. For Bernard, complex facts are those ones that, by means of a given theory’s analytical tools, can be reduced to simpler facts. Simple facts, relative to that moment of the development of the research program, can’t be reduced to still simpler facts. Now, Bernard calls such simple facts properties.

Like Bernard’s distinction, my criterion of ontological density is also relative. The distinction between events, on the one hand, and individuals, on the other, is relative to a given theory or to a certain moment of the development of a scientific research program. This is how we can say that, according to a given theory (or class of theories), there exist occurrences denser than others. The denser occurrences are those identified by the theory as entities, the occurrences that are given properties. The less dense occurrences are those ones depending on the properties of the denser occurrences, i.e. the occurrences of type 2 are relations between occurrences of

type 1. According to this criterion, individuals are, therefore, ontologically denser than events. According to the criterion of ontological commitment, both individuals and events exist; according to the criterion of ontological density, they both don't exist the same way.

That physicist would surely be rather at ease with this additional criterion. He would recognize that he doesn't talk of the billiard balls and the collision between them as occurrences of the same type in the world described by his theory. The balls have certain properties allowing them to be in certain relations, for instance, to collide so that the movement of one of them is communicated to the other. I think my criterion is reasonable from the point of view of common sense as well. For instance, as we talk about human beings' actions, we don't suppose that human beings and their actions exist in the same way. Human beings and their actions are occurrences in the world described by a psychological (or sociological or economic) theory, but human beings and their actions are occurrences of different types in the world describe by such theories. Notwithstanding, the philosopher is surely still cautious as to this additional criterion. Thus, it is fair to try to shed some further light on it.

The first question our philosopher certainly wants to raise is that there is a certain ambiguity in the very term used above, 'ontological density'. Indeed, in at least two different senses we can say that a given occurrence is ontologically denser than another one. Consider two rooms, the first one containing a billiard table and two balls on it, and the second one containing two people talking to each other. According to the criterion here proposed, the first room has three individuals, and the second room has two. Therefore, the first room would be considered ontologically denser than the second, in virtue of its having more individuals. However, the relationships between the individuals in the second room (two people talking to each other) amount to a richer class of occurrences. Of course, we can take each statement made by those two people as a linguistic occurrence. Thus, we could then argue that a criterion respecting the number of occurrences in each setting, instead of the number of individuals, could still maintain the same

idea of ontological density, and it would be closer to the criterion of ontological commitment, in its turn.

I see both ways of interpreting ontological density arguable. The first one is clearly an ontic interpretation, since it is based on the number of individuals there is according to a given theory or class of theories. According to this interpretation, the first room is ontologically denser than the second because it contains more individuals (a table and two billiard balls, which are individuals for a physical theory, since they are macroscopic bodies). The second interpretation referred to above is nomic, for it is based on the number of stable relations between the individuals of a given setting, which are described by a certain theory (by means of lawful statements). According to this second interpretation of the criterion, the second room is denser than the first one, since the second room exhibits a greater number of lawful occurrences (according to a psycholinguistic theory, for instance).

As a matter of fact, both interpretations complement each other. For the stable, lawfully describable relationships of certain individuals by means of a given theory are due to the fact that such individuals have certain properties or capacities. The second room (with two people talking) seems to be denser when we use a nomic version of the criterion just because we don't describe all possible relations between the individuals in the first room (the table and the billiard balls). Now, it is the models we construct based on a given theory that point out to us the possible relations between individuals. Thus, a priori, we can't know whether a physical theory used in the case of the first room doesn't lead to a greater number of occurrences (between the balls and the table) than those identified as to the second room by means of a psycholinguistic theory (used to describe the relations between two people in conversation). Since the nomic version of the criterion must refer to properties of the individuals, in order to describe their relationships, this version of the criterion doesn't add anything that wasn't already included by means of the ontic version of the criterion.

The ontic and nomic interpretations of the criterion of ontological density are complementary in another sense. In addition to the above mentioned meanings of terms occurring in like discus-

sions, let us use the term ‘system’ to mean any stable relation between a number of parts, if such a relation exhibits a certain reproducible pattern or structure. Such a pattern may be lawfully described from the point of view of a given theory, and such internal description may be richer than any other possible external lawful descriptions, i.e. descriptions of the relations of the system considered as related to other ones. In this case, we can employ the same term as Nancy Cartwright (2003, *passim*, esp. pp. 49ff). We can then talk of nomological machines, i.e. settings of objects that exhibit certain laws. According to Cartwright, models in mathematical sciences (such as physics and economics) are projects of nomological machines. For instance, in this sense of the term, as Cartwright herself says, a nomological machine can be our solar system, which exhibits Kepler’s laws.

Compared with such nomological machines, according to the interpretation here proposed, a system can be identified with an individual or with a collection of events. Taken as an individual, the system is given certain properties. For instance, the gravitational system containing the Earth and the Moon may be given the property — or capacity, as Cartwright (2002 and 2003) prefers to say — of gravitating around the Sun. However, if the same system is taken as a collection of events — not properties — then the Earth and the Moon, as individuals put in relation, in their turn, must have certain properties responsible for putting them into a given relation (for instance, their masses). The interpretation to be adopted for such a system and the possibility of integrating it in a larger system, as a subsystem, are contingent, empirical issues; an answer to such questions depend on the theory to be adopted, on the laws such a theory imply, and on our capacity of observation and measurement.

If the above reflections are acceptable, then we can have a further formulation of the criterion of ontological density, which incorporates both the nomic and the ontic interpretations referred to above into a single version. A system is considered an individual (or occurrence of type 1) or a collection of events (an occurrence of type 2) depending on the theory adopted. In other words, a system is identified with a collection of occurrences, and it is the the-

ory we adopt that tells us whether we must identify it with a collection of events or with an individual. In addition, as long as an individual is given properties, such properties are to be taken as possibilities of relations with other individuals.

Consequently, according to the same criterion of ontological density, individuals are ultimately occurrences that can be identified with certain systems. Since the distinction between individuals and events is relative, as said above, individuals can never be taken independently from the role they can play in certain systems. Physical systems and individuals are an example in order, but the same applies to social systems, i.e. systems described by means of theories belonging to the area of social sciences, even though this is not so clear to us. Anyway, reducing an individual to a collection of events, or conversely, taking a collection of events as an individual, these are possibilities that are dependent on the theories we use.

When we talk about human individuals and their actions, we must resort to a psychological theory, in a broad sense, which can involve the many different aspects of the relationships between human individuals with each other and with non-human individuals (such as animals and material bodies), including features dealt with by economics, sociology, anthropology, history, etc., i.e. the social sciences generally speaking. It is in this broad sense that I employ the term 'psychological theory' in the remainder of this paper, where I discuss the distinction between human individuals, taken as psychological entities, and their actions, taken as psychological events.

3. Davidson and Psychology as a Science of Individual Actions

Part three of Davidson's *Essays on Action and Events* collects some of his texts on the foundations of psychology and the nature of mind. Those essays explain especially Davidson's doctrine, anomalous monism, which is well known. Thus, I won't comment on anomalous monism in detail, but just review some of its tenets that are directly connected with Davidson's thesis that psychology is

devoted to explaining individual events. This is why psychology doesn't have a lawful character.

According to Davidson, mental events (including actions) are identical with physical events (1980, pp. 209ff, and 248ff); they are mental just in virtue of the way they are described. An event is physical if it is described by means of a vocabulary containing physical terms only; an event is mental if in its description there is at least one mental term, such as a propositional attitude verb. Since Davidson's position is a monism of substance, it is compatible with the idea that mental events are, in a certain sense, supervenient or dependent on physical events (1980, pp. 214 and 253). But he denies the existence of psychophysical laws, i.e. laws connecting the mental to the physical. Davidson's theory is a kind of heterodox identity theory of the mental (1980, p. 209).

In addition, Davidson distinguishes two kinds of generalizations, homonomic and heteronomic (1980, pp. 219 and 230). Any generalization may point to a law, but the question is whether such law can be stated in the same vocabulary used in the generalization. In the positive case, the generalization is homonomic; and a number of instances are given by physical generalizations, which point to strict causal laws. As for psychology, however, possible laws are pointed out by heteronomic generalizations. In other words, even if based on the observation of overt behavior of human individuals we arrive at certain generalizations and raise the hypothesis that they point to psychological laws, such laws could be stated only in a different vocabulary, namely a vocabulary containing mental terms, which don't occur in the descriptions of overt behavior.

This is why our approaches to physical or psychological phenomena are essentially different, Davidson maintains. And he writes as follows:

The heteronomic character of general statements linking the mental and the physical traces back to this central role of translation in the description of all propositional attitudes, and to the indeterminacy of translation. There are no strict psychophysical laws because of the disparate commitments of the mental and physical schemes. It is a feature of physical reality that physical change can be ex-

plained by laws that connect it with other changes and conditions physically described. It is a feature of the mental that the attribution of mental phenomena must be responsible to the background of reasons, beliefs, and intentions of the individual. There cannot be tight connections between the realms if each is to retain allegiance to its proper source of evidence. (Davidson 1980, p. 222.)

In addition, in another passage where Davidson recognizes his affiliation to a Kantian perspective as to the autonomy of human action, he says:

Such accounts of intentional behaviour operate in a conceptual framework removed from the direct reach of physical law by describing both cause and effect, reason and action, as aspects of a portrait of a human agent. The anomalism of the mental is thus a necessary condition for viewing action as autonomous. (Davidson 1980, p. 225.)

Consequently, from Davidson's viewpoint, psychology deals exclusively with individual events and explains them in a non-nomological way. Thus, a suitable theory of action must explain individual actions connecting them to individual beliefs, desires, intentions, decisions, etc., assigned to the agent (1980, p. 221). In addition, the explanation of human action must describe it as rational, as Davidson repeatedly argues for in essays 12–14 in that same book; and he gets back to the same point in essay 8 of *Problems of Rationality* (2004), denying the possibility of a science of rationality. In all those essays, Davidson restates his thesis according to which psychological phenomena are irreducible to physical phenomena, and that social sciences can't develop themselves into closed deterministic systems, as opposed to what is possible in the physical sciences.

Davidson's perspective can — and, in fact, it has been — criticized from many different viewpoints, both by those who seek to argue for a strict or orthodox identity thesis between the physical and the mental and others who seek rather to maintain that there is a specific character of the mental, especially those who suppose

that social sciences and psychology can also be nomological sciences, like the physical sciences. In the next section, I criticize Davidson's view on psychology, reverting to some arguments I developed before (Dutra 2002 and 2003). In order to finish this section, let me comment on some presuppositions of Davidson's doctrine, which are unquestionable to him, but very doubtful from other perspectives.

Davidson supposes that action is (or can be) consistent and rational. Accordingly, social sciences are given by him the task of accounting for such aspects of human behavior. From this point of view, psychology and the social sciences have a purely interpretive role to play, based on the attribution of intentionality to human individuals. Davidson's doctrine about the foundations of social sciences and psychology is surely coherent and interesting. In addition, to a great extent, it retrieves much of traditional philosophy and common sense.

Now, according to traditional philosophy, rational explanations (of action, for instance) are incompatible with causal explanations; and Davidson acquiesces in such a view. I mean the tradition that goes back to Galileo, according to which, in addition, there is also an incompatibility between mechanic explanations (in terms of efficient causes) and teleological explanations (in terms of final causes) of phenomena, as opposed to the Aristotelian tradition. Physical sciences must give us only mechanic explanations of the phenomena they investigate. In no other sense, the term 'causal explanation' is to be taken.

It is a more recent consequence of such a view that as regards social sciences teleological explanations are possible only in a specific way, namely describing human actions as occurrences in the world that are directed to ends chosen by human agents. Such ends are, therefore, anticipated in an agent's beliefs, desires, volitions, etc. That is to say, the only permitted kind of teleological explanation is intentional. According to this view, causal (mechanic) explanations may — and generally — resort to natural laws, but this is not possible in the case of intentional explanations. Davidson is one of the leading supporters of this doctrine.

To sum up, Davidson's view is based on two main theses. First,

there are no teleological laws; therefore, there are no intentional laws. In addition, in virtue of his adherence to a kind of metaphysical monism, which denies the existence of non-material substances and coincides, therefore, with materialism, Davidson maintains also that, as we talk of mental events, we talk of the same physical events, but described — i.e. construed — differently. Thus, what the physical sciences explain as movement, for instance, psychology may also explain as action. Taken as a mental event, action is nothing but the same physical event pointed out as if it were something else. Consequently, Davidson's view of the social sciences seems to be just a way of comforting human impotency before a world of inexorable causal determinism. Davidson's occasional references to Kant make this clear.

As for the possibility of psychological laws, this is a matter of fact; and it depends on the capacity of certain research programs in psychology to state such laws. As opposed to Davidson's stance, I don't mean psychophysical laws, i.e. those laws showing that mental events are subject to the same lawful regularities as their physical counterparts. I mean possible genuine psychological laws, i.e. laws describing certain regularities of behavior as lawful, but not in virtue of any connections with physical regularities. It is laws of this kind, not only as to psychology, but also as to the social sciences generally speaking, that are referred to by an alternative tradition, to which Neurath belongs. Neurath (1959 and 1970) maintains the independence of laws belonging to different spheres of phenomena — physical, biological, chemical, psychological, economic, etc. I adopt this stance in my discussion in the next section.

Davidson's concerns are essentially metaphysical, and they are not necessarily to be connected with conceptual discussions on the foundations of the sciences, physical or social. In a sense due to Quine, let us call discussions of this kind ontological. In this sense, as Neurath maintains, any laws to which the many different empirical sciences refer are lawful regularities taking place in space and time. However, this doesn't mean that psychological or sociological laws are reducible to physical laws. In the same vein as Quine's theses of ontological commitment and of ontological relativity, it seems to me, we can say that such laws describe occur-

rences in the same world dealt with by physics, but according to different, alternative schemes. In addition, it is a matter of fact, not a question of philosophical principle, whether there are such scientific research programs revealing psychological and sociological laws, in addition to the laws belonging to research programs in the physical sciences.

4. A Nomological Alternative for Psychology: Social Systems

If the criterion of ontological density I propose here is acceptable, then there is a solution to the problem raised by Davidson that is more acceptable than his own solution. Terms such as 'Caesar's death' don't refer to individual events. Their literal interpretations don't commit us to the existence of events as entities. Rather, 'Caesar's death' is given a meaning by courtesy of certain pragmatic features of our language and in virtue of the meaning of 'Caesar died'.

This solution takes the same line of thought adopted by Carnap (1959 [1932]) above mentioned, as to 'in that room there is nothing'. We can also say that in ordinary language this sentence is meaningful by courtesy of the pragmatics of speech; it is equivalent to the logically stricter 'there is not any individual inside that room'. The criterion of ontological density aids us to avoid reifying as to the term 'nothing'; and the same applies to 'Caesar's death'. In both cases, there is a theory according to which certain occurrences are (or aren't) pointed out. Thus, 'Caesar died' and 'Caesar's death' correspond equally to a given event, which can be described and redescribed in accordance with a certain theory or by means of that theory's language.

Consequently, Caesar's death is not an individual, but an event that involves an individual, namely Caesar. More specifically, Caesar's death is an event occurring in Caesar taken as a system (or biological organism), and described by a (biological) theory. In the same way, we can say that Caesar's murder is not an individual, but an event involving three individuals, namely Caesar, Brutus and a

knife. Such an event can be described by means of a forensic theory, since a murder is a forensic category, in the first place. As for the specific case of human actions and of a possible psychological theory that enables us to describe them, let us see an alternative to Davidson's view.

In order for us to argue for the thesis that psychology can describe lawful regularities explained on the basis of genuine psychological laws, it is necessary that there are research programs in psychology that are capable of stating such laws. As a matter of fact relative to the history of sciences, on the one hand, today there are reasonable doubts as to the existence of such programs and laws. On the other hand, there are also facts that encourage us to believe in such a possibility. There are a number of neo-Skinnerian behaviorist programs giving us reasons to be optimistic in this regard, such as Herrnstein's (1977) and his collaborators' program about the matching law.

In the field of behavior theories there is also another alternative, argued for by Rachlin (1994), who adopts an Aristotelian perspective according to which it is possible to give teleological explanations to human behavior, which aren't intentional explanations in Davidson's sense. According to Rachlin, the final cause of a behavioral event is a more comprehensive event in which the former fits. For instance, to play a movement of a certain symphony fits in playing the whole symphony. This is why we can say that the symphony is the final cause of one of its movements. To the extent that certain patterns of behavior fit in social, more comprehensive contexts, in a given social system, they are then teleologically explained. Rachlin himself calls his position teleological behaviorism, the same term chosen by Rowland Stout (1996). Both Stout and Rachlin acquiesce in an Aristotelian perspective as to causes, which deviates from the tradition going back to Galileo, acquiesced in by Davidson, and now deeply influenced by analyses such as Hume's.

My alternative analysis is partly based on the referred to teleological behaviorist doctrines, but I try to add some elements the mentioned writers don't deal with, especially the lawful character of teleological explanations of action. In this connection, my ap-

proach follows Neurath's social behaviorism. Herrnstein's theory is helpful as regards this problem, since it deals with lawful regularities in the field of microeconomics, which can be explained by a number of laws of behavior (such as the matching law) that are stated in the same rigorous mathematical formalism of laws in the physical sciences. It is worth remembering at this juncture that the very possibility of such exact laws in the field of the social sciences is also a matter of fact, and it depends on the development of research programs in that field.

This doesn't rule out, however, the possibility of anticipating a general description of human action in lawful, teleological terms, which is based just on the way we ordinarily explain human action. It is true, on the one hand, such as intentionalists like Davidson maintain, that we ordinarily explain human actions attributing beliefs and intentions to human agents. But, on the other hand, to the extent that a number of social contexts are well known, allowing to think that in such contexts it is not necessary to give intentional explanations, we also explain human actions by means of final causes, exactly connecting the actions of certain agents to the social context in which they take place.

In discussions about the ontology of the social sciences, it is common and recurring the problem of the possibility of there being social entities irreducible to mental entities (human individuals), i.e. entities that aren't just totalities or conglomerates of human individuals, in which case social properties are irreducible to the mental properties of human individuals there involved. Davidson's position imply a reduction thesis of the social to the mental, even though, on the other hand, as seen above, Davidson emphasizes that the mental is irreducible to the physical. Rather, based on my criterion of ontological density, I maintain an irreducibility thesis in both respects. Not only the mental is irreducible to the physical, but also the social is irreducible to the mental. I adopt a position similar to Ruben's (1985), according to whom social entities are irreducible to mental entities (human beings).

In the remainder of this section I use the terms 'mental entities' and 'social entities' to refer respectively to human individuals — taken as agents, whose action can be described lawfully and

teleologically by means of a psychological theory — and to social institutions — described by a social theory. For instance, according to Ruben, the social entity France is not reducible to the (extensional) enumeration of the human individuals considered as being French.

According to my view, it is relative to a psychological theory that we can point out the entities our human individuals, taken as agents, whose action or behavior is to be described. The theory's ontology involves occurrences of two types, namely entities and events. Action or behavior is classes of events that involve human individuals. In addition, we attribute to human individuals certain properties, responsible for the relationships in which such individuals' shared behavior or action consists.

In addition, a social (or sociological) theory enables us to point out social entities or individuals (the ones I call institutions), whose behavior is described by the theory. According to such a social ontology, there are also occurrences of two types, i.e. entities and events. Since social entities are institutions, social events are described by the theory based on the (social) properties of institutions. For instance, the fall of the Bastille is a social event described by a social theory as being the event involving at least one social institution, namely the Bastille. In fact, it is well known that such an event involved many different institutions. According to my teleological approach, the fall of the Bastille is a social event that fits in another larger one — the French Revolution. Thus, according to such a social scheme, it is as a function of a number of properties of French institutions by the end of the eighteenth century — such as the Bastille prison, the absolutist monarchy, the opposition to the regime, etc. — taken as being social individuals that we can explain the event we name by the term 'the French Revolution'.

Now, from the perspective of Quine's criterion of ontological commitment, the question to be asked at this juncture is: "Does our talk about the French Revolution commit us to its existence as a social individual?" Of course, Davidson would say it does, but, according to the present analysis, the answer is "no." The French Revolution is an occurrence of type 2, i.e. a social event or phe-

nomenon. According to my criterion of ontological density, taken literally, our talk commit us to the existence of social entities or individuals or occurrences of type 1, such as the Bastille and the absolutist monarchy, i.e. the institutions involved in that great social event, the French Revolution.

Even if this use of the criterion of ontological density is acceptable, the remaining question is obviously about the role played by mental or psychological entities, human beings, in social events. According to the scheme of a psychological theory here argued for, how can we connect the action of individuals or psychological entities (agents) such as Louis XVI and Robespierre, for instance, to the French Revolution taken as a social event? From the viewpoint of a non-reductionist approach supposing the specificity of the different ontologies — social and psychological — we can't say that the French Revolution is an event due to the action of Louis XVI and Robespierre, among other agents, in virtue of their beliefs, desires, volitions and intentions. This is how Davidson would explain it. What is then my alternative way of explaining the French Revolution without any resort to beliefs, desires, volitions and intentions attributed to Louis XVI and Robespierre, among other agents?

The point is that we can attribute to Louis XVI and Robespierre, like any other agents whose action or behavior is described by a psychological theory or a theory of action, certain properties, such as their beliefs, volitions, etc. But it is not such properties that, in a social scheme, can explain events such as the French Revolution. From a social viewpoint, Louis XVI and Robespierre are still agents or, more specifically, social actors, but they are so described in virtue of their belonging to certain social institutions, such as the absolutist monarchy and the opposition to the regime, respectively. From this point of view, the human individuals Louis XVI and Robespierre are classes of patterns of behavior. Those of their behaviors that fit in the social contexts involved in the episode of the French Revolution are given a teleological explanation. In other words, Louis XVI and Robespierre acted as they acted not in virtue of their beliefs and volitions, etc., but because their actions fitted in that social context of the French Revolution.

Human individuals other than Louis XVI and Robespierre, once put in those same social circumstances, would probably act in a way very similar to the one they followed. This is due in part to the fact that social circumstances and institutions model the individuals' behaviors to a large extent, and likewise their abstract counterparts, such as beliefs, volitions, etc.; but also because, put in the same social circumstances, human agents must act choosing among a limited number of options, sometimes a very small number of alternative courses of action, which can fit in the social context where action is to take place. Thus, even avoiding the reduction of the mental to the social, we can say that the social determines the mental not less than the physical. We are not only before a world of inexorable physical determinism, but also of social determinism.

In order to avoid that Davidson and Kant despair altogether, this doesn't mean, however, that there are no circumstances where freedom and rationality are present. But those circumstances are socially, as well as physically, determined. Indeed, such possibilities of free and rational actions are supplied by a number of social contexts. Rationality and freedom can be socially constructed, and they are indeed found in specific social contexts. The democratic system is one of them, besides philosophy and science themselves, taken as institutions.

If human action can be given this teleological explanation, where does it rest its lawful character? To the extent that a social theory describes a social system suitably and shows the articulation between its different contexts and institutions, if there are regularities disclosed, they point to social (or sociological) laws. Similar to Davidson's arguments for a heterodox identity theory (of the physical and the mental), at this juncture, there seems to be no other alternative than arguing for an identity theory of the mental and the social. But such identity theory is still a heterodox one, like Davidson's, for an event is mental or social depending on how it is described. More specifically, the social lawful regularities involve regularities of the behavior of human individuals.

This doesn't mean, however, that there can't be lawful regularities specifically psychological, independent from social regularities. It means just that a part of our behavior can be teleologically ex-

plained because it fits in certain social contexts that exhibit social lawful regularities. Typical mental regularities take place in those contexts where action can be described as typically free and rational, like in the context of free elections in a democratic system. This is where the kind of explanation of action Davidson argues for is suitable. It is where we can describe action as rational and due to beliefs, volitions, etc., of human agents. But, in this case, actions aren't individuals but events that involve human individuals.

5. Conclusion: Psychology as a Science dealing with General Events

Following Kant, Davidson is concerned with saving human rationality and freedom in a world of physical determinism. As I argued for in the previous section, it is possible to add to their concerns those ones typical of the materialist tradition Neurath belongs to, which has its major exponent in Marx. According to this tradition, the social determination of action is not less important than any physical determination.

If my alternative approach is acceptable, then an important conclusion follows, which is contrary to Davidson's stance. If psychology is taken as being a science of lawful regularities that states laws, similarly to the physical sciences, then it is a science concerned with explaining general events, not individual ones, as maintains Davidson. More specifically, single events can be given the kind of explanation Davidson argues for in specific social contexts.

In addition, we can say that psychology doesn't explain individual action, but kinds of action, depending on the possibility that a research program in psychology discloses lawful regularities. Likewise, if a research program in the other social sciences, such as sociology and economics, does find out lawful regularities and, according to them, we can describe certain social contexts where certain patterns of action fit in, then we can also give teleological explanations of those patterns of action, which have in such social contexts their final causes.

In this paper I tried to discuss the underpinnings of an alternative approach that, in its turn, tries to avoid a number of dogmas of traditional analytic philosophy, which is influenced by analyses such as Quine's and Davidson's, like those ones I discussed above. Not only the adoption of an Aristotelian view of causes is necessary to such an alternative approach to stand, but we have also to improve on the criterion of ontological commitment, which is central to Davidson's analyses of human events and actions, with the more accurate criterion of ontological density.

From this alternative approach not only a new image of the social sciences as being nomological sciences emerges, just like the physical sciences, but also a new image of psychology as a nomological science dealing with kinds of mental events that can't be taken into account independently from the social contexts they fit in. Thus, as opposed to what Davidson supposes, the challenge is not to compare mental events with physical events, but with social events.¹

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Keywords

Davidson, ontological commitment, ontological density, psychology.

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Resumo

Este artigo procura discutir o uso que Davidson faz com relação a eventos do critério de compromisso ontológico de Quine. De acordo com Davidson, estamos ontologicamente comprometidos com a existência de eventos como indivíduos quando empregamos literalmente expressões como 'a morte de César', por exemplo. Davidson estende essa análise também às ações, uma vez que elas são eventos humanos. Uma das consequências dessa concepção é que a psicologia lida com eventos individuais de uma forma não-nomológica. Uma concepção alternativa é proposta aqui, baseada em um critério complementar, a saber, a densidade ontológica, de acordo com o qual, do ponto de vista de dada teoria, podemos sempre distinguir entre eventos (ou fenômenos) e indivíduos (ou entidades) dentre as ocorrências que em geral são descritas pela teoria. Algumas consequências dessa concepção alternativa da psicologia como uma ciência que lida de forma nomológica com eventos humanos gerais também são discutidas aqui.

Palavras-chave

Davidson, compromisso ontológico, densidade ontológica, psicologia.

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