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The Role of Normativity and Rationality in Establishing Mental Anomalism

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Abstract

In this paper I argue that the thesis of nomological irreducibility that Davidson aims to establish in *Mental Events* cannot be understood without taking into consideration the central role that the constitutive ideal of rationality plays in his thinking about the nature of the mental. My aim is to investigate in more detail the conception of rationality that Davidson thinks plays an essential role in psychological theorizing. I suggest that the regulatory role of the feature of rationality, that is an essential one of the mental, bestows on mental concepts and the explanations in which they feature, an essential normative character. Such normativity depends on the fact that the concepts are necessarily *ceteris paribus* in the sense that the conditions that limit the application of the concepts aren't exhaustively enumerable in any vocabulary. This undermines the possibility of formulating strict laws. Strict laws require that we are able to fully explicate the conditions that limit the application of the concepts it employs. Such exhaustive enumeration is possible only in the vocabulary of a closed theory, namely, physics. As soon as we change the vocabulary from mental to physical in order to fully explicate the clauses we can no longer recognize the events we describe to be mental ones. This change of subject is the result of the fact that we can no longer recognize the concepts to answer to a standard that is an ideal, namely, rationality.

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Let's suppose we have a particular view of science, one that involves our being able to fully describe and make sense of the world, of reality, on the basis of the laws of physics. The point of science, on this view, is just to formulate a systematic lawful theory about the nature of reality that makes it completely understandable and predictable to us. Maybe that view is implicit in our hesitance to accept claims of the following sort:

> Even if someone knew the entire physical history of the world, and every mental event were identical with a physical it would not follow that he could predict or explain a single mental event (so described, of course). (Davidson; *Mental Events*; 1980; 224)[1]

This claim reflects Davidson's view concerning the possibility of psychophysical laws. My aim in this paper is to investigate Davidson's argument in support of it. This will involve answering the question: What does Davidson think makes mentality unpredictable, or anomalous, in the way suggested by the above statement? I will suggest that his argument in favour of mental anomalism is tied up with what he takes to be a defining feature of the mental, *viz.*, rationality. It is due to the very nature of the mental, a nature determined by that feature, that mental phenomena cannot be predicted and explained in terms of physics, or on the basis of strict exceptionless laws. I am assuming, in accordance with Davidson, that such laws are only found in physics.

My strategy for answering the question raised above will be to investigate some reconstructions of Davidson's arguments for the anomalism of the mental. These can be seen to fall, broadly speaking, into two camps: those which consider the question of the normativity of mental concepts as a key consideration in the argument for anomalism and those which do not. I argue against the latter that the distinctive nature of psychology, as Davidson conceived of it, cannot be understood without taking account of the role of the constitutive ideal of rationality in regulating psychological theorizing.

Apart from the fact that the impossibility of laws has important consequences for the methodology of psychology, the nature of the argument as Davidson conceived of it has long been disputed. Critical engagement with it and therefore progress in determining an answer to the question about the nature of the mental that Davidson wanted to settle, have been forestalled by a lack of agreement as to what the argument is supposed to be and what it is supposed to establish in the first place. I do not think these two questions properly come

[1] *Mental Events* hereafter abbreviated *ME*.

apart; unless we are clear about the claim that Davidson wants to make we cannot begin an investigation into the support he offers for it.

I must emphasize that my project is purely exegetical. My aim is neither to defend Davidson's argument nor to endorse his position; rather it is to understand the nature of the claim that Davidson wants to make as well as to investigate how his argument in support of it must be understood. As I mentioned the two questions are not properly independent, the nature of the claim will be determined by the argument Davidson offers for it and at the same time, the nature of the claim will constrain the argument that can be considered as supporting it. Thus my project is really two-fold: in the first part (§§II and III), I attempt to argue against a particular explanation of what nomological irreducibility involves that it does not and cannot ground the thesis of the anomalousness of the mental that Davidson wants to establish. In the second part (§§ IV – VIII), I investigate what makes psychology distinctive in a way that isn't captured by the accounts of irreducibility in the first part of my paper. I also consider in more detail the feature of rationality that Davidson thinks distinguishes psychology. If my interpretation is correct then Davidson's argument is important in determining a particular metaphysical conception of mind, one that is both intriguing and worth engaging with critically. In the section below I give an outline of my argument in greater detail.

§I:

In *Mental Events*, Davidson (1980) draws a distinction between heteronomic and homonomic generalisations. Strict laws, by which Davidson means exceptionless laws, laws of the sort that allow *complete enumeration* of its *ceteris paribus* clauses, can be formulated only in a homogeneous vocabulary, or in the terms of a closed theory. Generalisations formulated in the vocabulary of such a closed theory are homonomic. A closed theory can be understood to be one that has the resources to explain and describe, using the properties that determine

events as falling within its domain, all of those events, on the basis of connections to other events characterized in terms of it. Physics aims to provide such a theory:

> [P]hysical reality and physical change can be explained by laws that connect it with other changes and conditions physically described. (Davidson; *ME*; 222)

We can explicate, in the same vocabulary, the conditions and provisos necessary to ensure the application of the generalisation. But not all generalisations are so formulable. The generalisations, for example, in the special sciences are formulated in the vocabulary of open theories, and are hedged by *ceteris paribus* clauses that are *not* fully explicable in the terms of the theory. Open theories do not have the resources to account for all events that occur within its domain by employing only the properties that determine that domain. It therefore draws on properties not recognized by the theory in order to explain events. These generalisations Davidson thinks 'give us reason to believe there is a precise law at work'. (219) Clearly, however, a precise law is not formulable using the vocabulary of whatever special science the generalisation is couched in terms of. In order to be able to *fully explicate* the CP clause that hedges a generalisation, we need to shift the vocabulary from the one of an open theory to one of a closed theory (physics). Davidson doesn't say very much about what justifies the distinction so drawn, but what is clear is that while psychology is heteronomic, it is not that fact (alone) that accounts for its anomalous nature.

In his paper, *Special Sciences (Or: The Disunity of Science as a Working Hypothesis)*, Fodor (1974) argues that the special sciences are irreducible to physics. He outlines a picture of (strict) reduction that he thinks undermines the possibility that the special sciences can be reduced. Psychology is a special science in exactly this way, and the irreducibility of psychology is established on the same grounds that he establishes the irreducibility of the other special sciences.[2] My claim, in discussing Fodor's argument, in § II below, will be that *it does not* establish the claim that Davidson wants to make about the anomalous nature of the mental. There is something distinctive about psychology (according to Davidson) that Fodor's argument fails to capture.

I start by investigating the requirements for reduction as Fodor outlines it. It requires that every property in a special science law can be reduced via bridge laws to some property in

[2] Nothing turns on the fact that the claim that Fodor argues for is called an irreducibility thesis, the point is that it is not equivalent to the claim Davidson wants to make about the anomalousness of the mental. In that sense, Fodor does not establish the nomological irreducibility of the mental.

physics. According to such laws a necessary and sufficient condition for the property in the special science law, S_1, to obtain, is for the property in physics, P_1, to obtain. He goes on to argue that the special sciences (including psychology) are irreducible to physics on this model of reduction. Special science properties can be reduced via bridge laws to physical properties only if we allow that those properties are disjunctive. However, such disjunctive properties are not fit for inclusion under laws, thus the special sciences are nomologically irreducible to physics.

The claim I want to establish in this section is that Davidson can accept the argument against the 'irreducibility' of the special sciences that Fodor puts forward, but that it falls short of establishing the claim that Davidson wants to make about the impossibility of psychophysical laws. At most what an argument like Fodor's can establish is that the special sciences (including psychology) are heteronomic (in the sense discussed above). Davidson makes a further claim in order to establish the nomological irreducibility of psychology. The claim is that as soon as we change the vocabulary in which the original generalization is couched (mental), in order to formulate a strict law in the homogeneous vocabulary of physics, we no longer explain the phenomena that were the subject of the original generalization. By so arguing Davidson establishes the claim that it is in principle impossible to formulate laws relating mental and physical events in *any* vocabulary. Fodor's argument can ground no such claim.[3]

Contrary to the claim that I aim to make in §II, Yalowitz argues in his paper, *Causation in the Argument for Anomalous Monism*, that Davidson can establish the nomological irreducibility of the mental on the basis of the sort of argument that Fodor put forward. He aims to do so by showing that the nomological irreducibility of psychology follows directly from Davidson's thought about causality, and in particular, the causal nature of mental concepts and the anomalous nature of causally defined concepts. Once again, I suggest that this is not a claim that Davidson would in principle need to reject, but it falls short of establishing the claim that Davidson wants to make about the nature of psychology. In order to see why it falls short, we need to understand the distinction that Yalowitz draws between INUS (insufficient and non-redundant part of an unnecessary but sufficient) conditions and CP (*ceteris paribus*)

[3] In fact, if Fodor thinks that psychological properties reduce via bridge 'laws' to disjunctive physical properties, in which the individual disjuncts are related on the basis of strict physical laws, and those laws still explain the phenomena at the level of psychology, then his position is incompatible with Davidson's. As it turns out, Fodor does not make explicit in that paper his view regarding the explanatory reach of the resulting physical laws.

conditions. Yalowitz's claim is that the generalizations in psychology, as well as the generalizations in the other special sciences, are CP in the sense that he specifies.

According to his specification the conditions that limit the application of a special science generalization cannot be explicated in the terms of the science in which the generalization is formulated. Theories in the special sciences are open and preclude the complete enumeration of the conditions that limit the application of the concepts formulated in its vocabulary. In that case, Yalowitz suggests, the special sciences and psychology are anomalous because strict laws require that it be possible (at least in principle) to enumerate completely the conditions that limit the application of the law or generalization. Thus it requires that the generalizations are made in terms of INUS conditions. These conditions require that the generalizations are formulated in the terms of a closed theory, namely, physics.

This is an argument that Davidson can accept, but Yalowitz is wrong to think that it establishes the anomalousness of the mental in Davidson's sense. The distinction between CP and INUS conditions reflects the distinction that Davidson draws between homonomic and heteronomic generalizations. In order to establish the claim that Davidson wants to make, we need to make sense of his argument that when we change the vocabulary in which the initial psychophysical generalization is couched in order to formulate strict laws in a physical vocabulary, we change the subject; we are no longer explaining the phenomena that was the concern of the original generalization to explain. Yalowitz's claim is consistent with the view that once we reformulate the generalization in the special science in the vocabulary of physics, the laws that we derive still explain the phenomena that the original generalization was concerned with. Davidson denies that this is the case for psychology. It is *that* argument we need to consider if we are going to understand the nature of Davidson's thesis. In order to make sense of what the notion of a change of subject involves we need to understand the role that the constitutive ideal of rationality plays in regulating psychological theorizing. Unless our concern is centrally with that notion we cannot understand and ground the claim that Davidson is at pains to establish.

To understand that role, we need to be clear about what distinguishes mental phenomena from any others. In § IV, I therefore investigate Davidson's conception of the mental and what he thinks is essential to it. It is distinguished as class, Davidson suggests, insofar as it 'exhibits what Brentano called intentionality'. According to Davidson such intentionality is

inextricably tied up with rationality. Actions (one class of mental occurrences) are intentional only insofar as there is some way of understanding the behaviour of an agent as reasonable from her point of view. If we cannot give what Davidson calls a primary reason for an action, i.e. an explanation that makes the behaviour one caused by a particular reason, then the behaviour was not intentional and therefore not an action.

In the case of beliefs, desires and other propositional attitudes, intentionality is exhibited insofar as such attitudes are 'directed' towards certain objects or states of affairs. These are pointed to by the propositional content that individuates the particular attitudes. Such propositional content is however essentially linked to its place in a logical structure determined by other propositional contents that the subject entertains. Propositional attitudes are individuated and identified in terms of the logical relations they bear to other propositional contents within the logical structure determined by the agent's psychology. In both cases then, of action and of propositional attitudes, the feature of intentionality depends centrally on our ability to describe the relations between the items as rational.

Once we are clear about the general picture of the mental we are working with we can reconstruct Davidson's argument for mental anomalism in *Mental Events*. This is my aim in §V. Davidson points out that mental concepts are distinguished partly by their intensional nature, by the fact, that is, that we can ascribe the content of attitudes only under particular descriptions of the states of affairs they are of. This feature of the mental is the result of the role of rationality that we briefly consider in the previous section. I also investigate in some detail Davidson's conception of lawlikeness and how such a conception determines his strategy for showing the impossibility of psychophysical laws. Given Davidson's conception of lawlikeness, it is possible, aside from obvious *a posteriori* constraints, to judge whether or not a statement is lawlike *a priori*. My claim is that Davidson thinks lawlikeness is a matter determined by the application criteria of concepts and, in particular, the compatibility of the ascription criteria of concepts that we want to relate in judgements. The application criteria in turn are determined by the constitutive elements of theories; these determine the standards to which phenomena must conform in order to be described by them.

Given his conception of lawlikeness, Davidson's proposed method for determining the (im)possibility of psychophysical laws is to consider whether once we change the vocabulary in which the psychophysical generalization is couched from mental to physical in order to

formulate strict laws (these are formulable only in a physical vocabulary), we change the subject-matter of the explanation. We need to consider whether the resulting (strict) law still explains the phenomena that the initial generalization set out to account for. Davidson suggests that it cannot. The resulting generalization, i.e. the one formulated in physical terms, is unable to explain the mental event *qua* mental because the mental and the physical have disparate commitments; the respective concepts are applied according to different ascription criteria. In particular, the mental concepts depend on and are determined by an ideal of rationality. The fact that they are so determined means that explanations of mental phenomena are essentially normative.

Once we change the vocabulary of the psychophysical generalization to a purely physical one, we also change the explanation from a normative to a descriptive one. If so, we no longer recognize the ideal of rationality as constitutive of the phenomena. In that case, Davidson thinks, we have no grounds to claim that they are mental phenomena, so we have changed the subject. One feature of normative explanations is that they have an essential *ceteris paribus* character, the clauses that hedge the generalization aren't fully explicable in *any* vocabulary. Once the clauses are fully explicated the generalization is no longer normative, but rather descriptive. Thus the normativity of mental explanations is tied up with the fact that the concepts are answerable to standards that are ideal.

To understand more clearly the conception of rationality we are dealing with and its status as an ideal or a norm I turn to a discussion of Davidson's (1985) paper *Incoherernce and Irrationality* in § VI.[4] I also compare the claims he makes there briefly to claims made by McDowell (1998) about rationality in his paper entitled *Virtue and Reason*.[5] I suggest that such a conception of rationality is at the heart of Davidson's claim that the mental is irreducible, in virtue of the fact that it makes mental explanations essentially normative. The central question that Davidson raises in the aforementioned paper is whether judgements we make about rationality are objective if the standards by which we so judge are ideal. What is at the basis of our confidence that the judgements we make in light of those standards (for which, if they are ideal we have no independent criteria) are objectively correct?

[4] Henceforward the paper is abbreviated *II*.
[5] Henceforward abbreviated to *VR*.

Davidson argues that objectivity is secured by accepting that someone who does not reason in accordance with our most basic requirements of rationality isn't reasoning at all. Unless we are able to understand another mind on the basis of what makes sense to us we have no basis for understanding it. Thus, the fact that rationality is an ideal does not undermine our ability to make objective judgements about whether or not someone reasons in accord with *our* standards of rationality. Anything that reasons does so in accordance (more or less) with our own standards. The suggestion is that rationality is dependent on us, creatures with minds. There is no way independent of something that has a mind in terms of which the standards of rationality can be recognized and determined.

It means also that such standards aren't entirely determinable prior to our making sense of and understanding the world. Thus, rationality is properly speaking ideal, we have no independent standpoint from which we can determine the standards that it sets. McDowell makes a similar claim about rationality in *Virtue and Reason*. His concern in that paper is primarily with practical reasoning, but his illustration proceeds on the basis of deductive rationality and reflects a concern about rationality more generally. The concern is with a certain prejudice that prevents us from accepting that some standard is an objective one unless it is characterizable from an independent point of view. It is this prejudice, he thinks, that also stands in the way of our appreciating the full force of Davidson's argument against psychophysical laws.

If we are going to make sense of this argument it is necessary that we understand in what way this feature of rationality, namely, its status as an ideal is reflected in the explanations we offer of phenomena that are regulated in accordance with it. In this regard I investigate in some detail McDowell's (1998) argument in *Functionalism and Anomalous Monism*.[6] There he suggests that our aim is to understand a particular rational faculty that we have, namely, our ability to reason deductively. If we understand deductive reason as a particular capacity we have to hold beliefs on the basis of their following deductively from other beliefs we have, then understanding that capacity, McDowell suggests, involves more than just being able to state the rules according to which the beliefs are in fact related. In particular, he suggests that we need to bring into account the notion of deductive consequence. Such a

[6] Henceforward abbreviated to *FA*.

notion is itself normative and determines why the relations that characterize beliefs in fact characterize it.

Deductive consequence, McDowell thinks, is inextricably bound up with the mental in a way that prevents us from offering a complete account of what it involves independently of a system that is structured in accordance with it. It determines the rules according to which we must reason in order to respect the standards of rationality, but it is itself not characterizable in terms of those rules. This makes its structure one that is ideal, and unless we appeal to that notion in order to characterize the relations between beliefs, the Davidsonian claim is that it is not a mind that we are describing. If we are to recognize an ideal of this sort as regulating our theory of minds, then we must also accept that the explanations that we offer of mental phenomena will be normative rather than descriptive.

McDowell points to two features that explanations that appeal to an ideal must have. It has these features in virtue of the gap between a standard's being an ideal and its being actual. First, the explanation must have a 'critical dimension' pertaining to the objects being explained. It must be the case that we can distinguish between better and worse ways of reasoning. If we can so distinguish then the explanation is never offered in terms of how things are, but always in terms of how things ought to be. If persons reasoned in accordance with the rules of logic necessarily, in the sense that they were all perfectly rational agents, then there could be no critical dimension in our explanations of them. The gap is also reflected on the part of those who attain understanding of the objects. We can never with certainty assume that our way of understanding the ideal is perfect or complete. In that sense the understanding we reach is never complete; it is, and must always be, open to improvement in light of new and better evidence. Once we assume that we have reached complete understanding we undermine the status of the structure that determines our understanding as an ideal. The explanations we offer must therefore always be qualified. This accounts for the fact that explanations of mental phenomena are always and necessarily *ceteris paribus*, in the sense that the qualifying clauses that limit its application resist full explication in any vocabulary. Insofar as strict laws require complete explication of such clauses any explanation of phenomena offered on the basis of subsumption under laws cannot be an explanation that recognizes an ideal of rationality as regulating the phenomena in question.

§II:

I start by investigating the sort of nomological irreducibility of the special sciences and psychology that follows in the wake of Kripkean intuitions about natural kinds. This has been quite influential in shaping our thoughts around reduction. A very useful and clear account was developed by Fodor (1974) in his paper *Special Sciences (Or: The Disunity of Science as a Working Hypothesis)*. Before I investigate Fodor's account in detail, it will help to say something about the connection between Fodor's views and Davidson's. Arguments along the same lines as Fodor's play a role in Davidson's account of the mental, however, they are not sufficient to ground the claim that I see Davidson as making. If we want to make sense of Davidson's argument for the anomalism of the mental, we're going to have to take account of more than just the irreducibility established by considerations of this type. At least part of Davidson and Fodor's thought on the subject of reduction tends in the same direction. Nevertheless, an important difference is the fact that Davidson sees psychology and the nature of its irreducibility as truly distinctive of the mental. Fodor, on the other hand, seems to treat psychology rather as a paradigm case of the irreducibility of the special sciences, across the board. Given this tendency of Fodor's, I think his account of irreducibility sheds less light on the question of the impossibility of psychophysical laws than one might have hoped. It is useful to investigate his account of irreducibility to see where it diverges from Davidson's thought.

First, I should specify Fodor's aim: He wants to suggest that reduction (in the sense to be specified) is too strict a constraint to place on the unity of science and that such unity is secured by a weaker constraint, namely, the generality of physics. The suggestion is that:

> If science is to be unified, then all such taxonomies [those developed by the special sciences] must apply *to the same things*. But it is not further required that the taxonomies which the special sciences employ must themselves reduce to the taxonomy of physics. (Fodor; *italics* in original; 1974; 114)

The generality of physics is thereby secured, whereas reduction (in the strict sense to be discussed) is neither necessary nor possible. With that in mind we can turn to the issue of reduction.

Fodor outlines the necessary and sufficient conditions for 'strict' reduction as follows: Suppose S_1 and S_2 are predicates that are true of some object(s) in some special science, and P_1 and P_2 are predicates true of those objects in physics. Further, in the special science a law of the form:

(1) $S_1x \rightarrow S_2x$

The law is reducible to physics if and only if:

(2) $S_1x \leftrightarrow P_1x$ and $S_2x \leftrightarrow P_2x$

(3) $P_1x \rightarrow P_2x$

We call the formulas in (2) 'bridge laws'. There is some question about how to interpret the biconditionals if we don't interpret them as identities. According to Fodor the most promising way of construing the relation is as one of 'contingent event identity', along the following lines:

> [E]very event which consists of x's satisfying S_1 is identical to some event which consists of x's satisfying P_1 and vice versa. (Fodor; 1974; 100)

This way of construing the relation between predicates in bridge laws amounts to a doctrine called token-physicalism: "the claim that all the events that the sciences talk about are physical events." (100) Our concern is mostly with reductivism and whether token-physicalism is strong enough to secure the unity of science. Reductivism, as implied by (1) – (3) above, conjoins the thesis of token-physicalism with the following assumption:

> [T]hat there are natural kind predicates in an ideally completed physics which correspond to each natural kind in any ideally completed special science. (100)

I am certain that Davidson would accept at least this specification of what reduction involves.

I have some concerns about Fodor's use of natural kind predicates. Fodor (1974) himself is not entirely comfortable with his use of 'natural kind predicate' either; he writes:

> If I knew what a law is, and if I believed that scientific theories consist just of bodies of laws, then I could say that P is a natural kind predicate relative to S if S contains proper laws of the form $P_x \rightarrow \alpha_x$ or $\alpha_x \rightarrow P_x$; roughly, the natural kind predicates of a science are the ones whose terms are the bound variables in its proper laws. (102)

I agree with his characterization of a natural kind, but I am inclined to think that proper laws must be strict laws, in which case the bound variables in the law would be universally

quantified (i.e. the generalizations will be exceptionless). Fodor treats S_1 and S_2 as natural kinds in virtue of their standing in law-like relation to each other under the terms of the special science. In order to give a proper account of Fodor's argument, I accept for the time being this characterization of natural kinds. Fodor's worry about reductivism, as we see from the above picture of reduction, is this: If reduction is true, then every natural kind is either identical to or co-extensive with, a physical natural kind. Similarly, each special science law translates into a physical law of the kind specified in (3). Fodor thinks this is an intolerable consequence.

According to Fodor, there are three interlinked reasons for thinking it unlikely that every natural kind (predicates of the special sciences) corresponds to a physical natural kind in this way. This is the crux of his argument against the reductivist:

> (a) [I]nteresting generalizations… can often be made about events whose physical descriptions have nothing in common, (b) it is often the case that whether the physical descriptions of the events subsumed by these generalizations have nothing in common is, in an obvious sense, entirely irrelevant to the truth of the generalizations, or to their interestingness, or to their degree of confirmation or, indeed, to any of their epistemologically important properties, and (c) the special sciences are very much in the business of making generalizations of this kind. (Fodor; 1974; 103)

Bearing in mind that on Fodor's view natural kind predicates are just those that feature in 'interesting generalizations', where these are any 'lawlike' generalization in Davidson's sense, Fodor's objection against reduction amounts to something along the following lines: Two special science predicates may be related in interesting ways even though their physical correlates (which they must have, assuming token-physicalism) are not related in any way that is of interest. Furthermore, the truth of the generalization is not in the least bit compromised by the lack of lawlike correlation between their physical descriptions. Lastly, special sciences are concerned with exactly these sorts of generalizations. I am sure that Davidson would agree with Fodor on these points and I think he would also agree that the considerations raised here pertain to psychology.

The disagreement between Davidson and Fodor revolves around the difference in emphasis they place on the notion of a natural kind predictate (in Fodor's sense) on the one hand, and the irrelevance of the relation between the physical descriptions of the properties in the special science to the truth or usefulness of the generalization, on the other. Davidson emphasizes the latter claim. He argues that the relations that obtain between events that are described in physical terms, and that are as a matter of brute fact coextensive with mental

events, tell us nothing at all about the events described as mental. In contrast, Fodor emphasizes the impossibility of a *natural kind* property in physics co-extensive with the property in the special science.[7] If there is a physical property coextensive with the special science property, then that physical property is *not* a natural kind. That is, he emphasizes the fact that it is not possible to have a predicate in physics that is coextensive with the predicate in the special science *and* is fit for inclusion in a law.

The idea is that any bridge 'law' of the type needed to reduce a predicate in the special science to one in physics, one that will suffice to relate a special science property, S_x, to a property in physics coextensive with it, will need to introduce a disjunctive property, such that we have bridge 'laws' of the form:

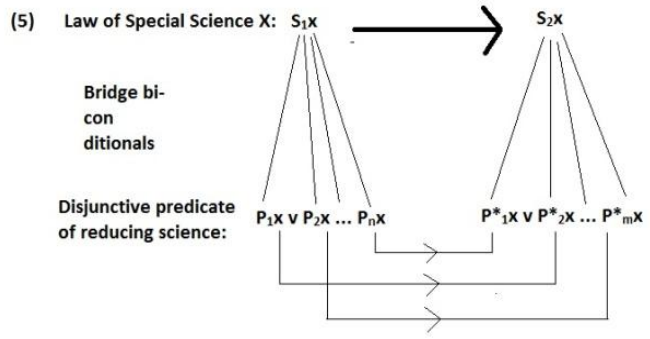
(1) $S_1x \leftrightarrow P_ix\ (P_1x\ V\ P_2x\ V\ P_3x\ V\ ....\ V\ P_nx)$

This is not a 'law'. P_ix, the disjunctive property, cannot be a natural kind predicate, and in cases where the biconditional is not a law, the resulting 'pure physical law' is not a law either. Of course, the complex disjunctive physical properties aren't physical natural kinds:

> 'P_1 v P_2 v.... v P_n' is *not* a natural kind predicate in the reducing science. I take it that this is tantamount to allowing that at least some 'bridge laws' may, in fact, not turn out to be laws, since I take it that a necessary condition on a universal generalization being lawlike is that the predicates which constitute its antecedent and consequent should pick out natural kinds. (Fodor; 1974; 108)

The special science properties are irreducible because, while the properties are lawfully related in the terms of the special science, they are not so related in physical terms. The picture we are left with on this account is something like the following: S_1x and S_2x will each be coextensive with a disjunction of predicates in physics, call these P_ix and P^*_ix respectively. If the law at the level of the special science (i.e. the law to be reduced), $S_1x \rightarrow S_2x$, is exceptionless, then there will be laws at the level of the reducing science, physics, that relates, for every individual disjunct in P_ix (the disjuncts of which are all individually sufficient to realize S_1) with one of the disjuncts in P^*_ix (the disjuncts of which are all individually sufficient to realize S_2). The figure below is a schematic representation (p. 109 in Fodor) of this point:

[7] It is clear that Fodor does not think that the lack of explanatory power of the reduced laws is itself a reason for irreducibility. Rather it is the result of the disjunctive nature of the physical predicates that are coextensive with the special science predicate, one that makes them unfit for inclusion under laws.



What this means is that if we have an exceptionless law in a special science, $S_1x \rightarrow S_2x$, then there must be some physical law(s) such that the physical properties co-extensive with S_1x is lawfully related to those co-extensive with S_2x. In which case, every *individual* disjunct in the disjunctive property co-extensive with S_1 and S_2 respectively is a natural kind one:

> [I]f $S_1x \rightarrow S_2x$ is exceptionless, then there must be some proper law of the reducing science which states or entails that $P_1x \rightarrow P^*$ for some P^*, and similarly for P_2x through P_nx. Since there must be such laws, it follows that each disjunct of 'P_1 v P_2 v ... v P_n' is a natural kind predicate, as is each disjunct of 'P^*_1 v P^*_2 v ... v P^*_n'. (Fodor; 1974; 108 - 109)

What doesn't follow is that we have a law connecting the two disjunctive properties:

(6) P_1x v P_2x v ... v $P_nx \rightarrow P^*_1x$ v P^*_2x v ... v P^*_nx

Assuming strict reduction as it is outlined above by (1) – (3), let's consider the case where the law in the special science has exceptions, as they generally do. We cannot consistently accept all three of the following claims: (i) $S_1x \rightarrow S_2x$ can have exceptions, (ii) the bridge laws that correlate S_1x and S_2x with a physical predicate or a set of them have no exceptions and (iii) the laws of physics are strict and exceptionless, such that $P_1x \rightarrow P_2x$. In order to make sense of the situation we must either reject the claim that special science laws have exceptions or that the basic laws do not. Neither of these options is acceptable.

This gives us a basis for rejecting reduction (or the constraint on the special sciences to be reducible to physics in order to secure the unity of science) Fodor thinks, on the basis of the fact that the laws of physics are exceptionless and the laws of the special sciences are not and given the picture of reduction he has outlined, as well as the fact that the relations between the predicates '→' are transitive, (1), the special science law can have exceptions only if the (2), the bridge laws do. According to Fodor (1974), if we accept that the bridge laws have

exceptions then we give up ontological reduction or monism. Those laws ground token-token physicalism. This is the most important or at least the minimum commitment that is the motivation behind the reductionist programme:

> In short, given the reductionist model, we cannot consistently assume that the bridge and the basic laws are exceptionless while assuming that the special laws are not. But we cannot accept the violation of the bridge laws unless we are willing to vitiate the ontological claim that is the main point of the reductivist program. (110)

On the account offered of coextensivity of special science predicates with disjunctive physical properties, an exception to $S_1x \rightarrow S_2x$ will occur just in case S_1x satisfies some predicate in P (the disjunctive physical property coextensive with S_1x) that is itself not lawfully related to a P*-predicate (the disjunctive physical property coextensive with S_2x). On the account that Fodor recommends we can make sense of the exceptions at the level of the special science without giving up token-token physicalism or ontological reduction:

> A nomologically sufficient condition for an exception to $S_1x \rightarrow S_2x$ is that bridge statements should identify some occurrence of the satisfaction of S_1 with an occurrence of the satisfaction of a P predicate which is not itself lawfully connected to the satisfaction of any P* predicate ... Notice that, in this case, we need assume no exceptions to the laws of the *reducing* science since, by hypothesis, (6) *is not a law*. (Fodor; 1974; 111)

In that case, we are not saying that the laws of physics are not exceptionless, since it is not the case that the disjunctive property, P, is lawfully related to the disjunctive property, P*. It is however the case that:

> When there *is* a law which relates an event that satisfies one of the P-disjuncts to an event which satisfies one of the P*-disjuncts, the pair of events so related conforms to $S_1 \rightarrow S_2$. (Fodor; 1974; *italics* in original; 111)

and similarly:

> When an event which satisfies a P-predicate is *not* related by law to an event which satisfies a P*- predicate, that event will constitute an exception to $S_1 \rightarrow S_2$. (*italics* in original; 111 - 112)

I think Davidson cannot accept as consistent with his claim that psychology is not nomologically reducible the fact that the exceptions in the reducing law (the one formulated under the terms of the special science) can be explained at the level of the reduced law, that is, can be explained in terms of the laws that connect the individual physical disjuncts. Davidson argues that we cannot give an exceptionless law relating mental and physical phenomena, for example, a reason and an action. Neither can we fully explicate the *ceteris paribus* clauses used to formulate generalizations relating them in *any vocabulary*. On the

above account the exceptions to the laws in the special sciences are 'explained away' or accounted for by physics.[8] The laws of physics itself have no exceptions. As soon as we are able to change the vocabulary in order to formulate strict laws, as we do in the case of the model discussed above, that model conforms to the category of heteronomic generalizations, i.e., we accept that the generalization points to some strict law, but one that can only be stated in a different vocabulary.[9] The distinction between homonomic and heteronomic is not however enough to ground the thesis of anomalism of the mental, even if the sort of argument Fodor suggests here is at the basis of the distinction.

To make the above suggestion clearer, consider that every occurrence of S_1, some property in a special science, is an occurrence of some property in P (where P is a disjunctive physical property). Every occurrence of S_2 is an occurrence of some property in P* (again a disjunctive physical property). The law that relates S_1 and S_2 holds *ceteris paribus*, such that, $S_1 \rightarrow S_2$. The *ceteris paribus* clause allows that sometimes S_1 will occur, but not be followed by S_2. This will constitute an exception to the 'law'. However, Fodor is suggesting that the exception can be accounted for by the reducing science (and must be): such an exception occurs just in case S_1 is connected to the satisfaction of one of the disjuncts in P, but this particular disjunct is not related in a lawlike way to any of the disjuncts in P*. Now, I want to argue that Davidson cannot accept that this is the case for psychology; it is incompatible with the nomological irreducibility he wants to claim for psychology. While it is (or could be) true of the other (natural) special sciences, it is exactly this that sets psychology apart from them. What Fodor has shown here is merely that the special sciences (including psychology) are heteronomic. This is a claim that Davidson accepts. But showing it to be heteronomic does not establish the claim that psychology is nomologically irreducible in Davidson's sense. We must show additionally that once we formulate the generalization in physical terms we have changed the subject – we are no longer explaining the phenomena that were the subject of our concern in the special science (psychology).[10]

[8] At least it is possible that they are. Fodor does not make any firm commitment that it is the case that the resulting physical laws explain the phenomena at the level of the 'reduced' science, and I see nothing to preclude that this is the case. I take it also that unless we give some positive argument that it cannot be the case, the question is left open. This question is the central concern of Davidson's account of mental anomalism.

[9] The strict laws are formulated in terms of the closed theory that physics provides. I mention the distinction between homonomic and heteronomic generalizations above on pp. 4 - 5.

[10] This might well be a claim that Fodor accepts, namely, that the resulting physical laws fail to pick out and explain the phenomena that was the concern of the initial generalization. He gives no argument here for

To illustrate what I think Davidson will have to say: Suppose physical laws are exceptionless (as both Davidson and Fodor agree), and suppose that we have for every special science property a complete set of physical disjuncts sufficient to realize that property. Then, while we may not use them in general, for reasons of simplicity and informativeness, we have laws on the basis of which we can predict accurately whether or not S_2 follows from S_1. These laws are formulated in entirely physical terms. This conforms to Davidson's model of heteronomicity. The generalizations of the special sciences point to strict laws, but ones that can only be formulated in a different vocabulary (which vocabulary is physical, because strict laws are only formulable in the terms of a closed theory). What we need to notice is this: even though the laws are now formulated in physical terms, it still explains the phenomena that are the concern of whichever particular special science the initial generalization was made in. In *that sense* the special science is *nomologically* reducible. Nothing prevents us from formulating the laws in physical terms and/or explicating the *ceteris paribus* clause(s).

Davidson's claim is that psychology is not and cannot be so reducible. Nevertheless, his acceptance of monism (ontological reduction) commits him to the following: For every mental predicate there exists (or it is at least possible that there exists) some particular physical predicate coextensive with it. Every mental event is as a matter of fact also a physical event. Suppose that, *ceteris paribus*, $M_1 \rightarrow P$, and suppose that M_1 is as a matter of fact coextensive with a disjunctive property 'P_1 v P_2 v ... v P_n' Now, according to Fodor, an exception to the generalization will occur, just in case any one of P_1 ... P_n isn't related in a lawlike way to P*. What prevents us from now predicting any occurrence of P* on the basis of the realization base of M_1? Nothing, as far as I can tell. But in that case all that Davidson has shown is that psychology is heteronomic, that is, we need to shift the vocabulary in order to formulate strict laws about the phenomena it (psychology) is concerned to explain. Davidson's claim, however, is that psychology is irreducible because as soon as we do change the vocabulary and formulate strict laws, those laws no longer explain the phenomena that psychology is concerned with. We have, by changing the vocabulary and by formulating strict laws abandoned the subject-matter of psychology. What follows is that mental concepts aren't reducible to physical ones. *Even if we have* a complete disjunctive predicate for every mental predicate (as we have been assuming) they aren't sufficient to reduce the mental

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thinking that they in fact fail to, neither does he give us reason to think that psychology is distinguished in any way from the other special sciences.

predicate (except ontologically). Before considering in more detail the claim I construe Davidson as making, it is useful to consider the kind of considerations Fodor puts forward more explicitly in the context of an argument for Mental Anomalism.

§III:

Yalowitz (1998), in his paper *Causation in the Argument for Anomalous Monism*, suggests that rationality plays no role (or needs to play no role) in establishing the anomalism of the mental, he says:

> I shall contend that both mental anomalism and monism can be derived via premises that flow directly from Davidson's commitments concerning the concept of causation, and do not depend on considerations about rationality. (184 – 185)

He makes explicit, however, that he is *not* reconstructing Davidson's argument:

> The argument I develop here does not capture all aspects of Davidson's discussion of these issues [about causality]. However, I do think that it surfaces in his writing at various points, and that, in the sense to be explained, it captures the logical core of his argument. It is offered here in the spirit of a friendly amendment to his overall picture. There can be no question, however, that rationality occupies a fundamental place in Davidson's own sketchy considerations in favor of mental anomalism..., and to that extent the argument of this paper cannot be said to represent Davidson's overall picture. (185)

I will suggest that his suggested adjustment is unnecessary and that the argument that he suggests captures the 'logical core' of Davidson's thinking cannot establish the claim that Davidson wants to make. It does, however, shed light on the distinction Davidson draws between homonomic and heteronomic generalizations. In fact, I will suggest that it can be seen to be the basis upon which the distinction is drawn.

I will discuss Yalowitz's argument fairly briefly, partly because it bears a close resemblance to the considerations Fodor advances in *Special Sciences* in favour of irreducibility that I have already discussed in §II. As I already suggested there, I do not think it is an argument Davidson would need to reject. Yalowitz's aim is to establish mental anomalism on the basis of the dispositional nature of the concepts we use in explanations in the special sciences (including psychology). The argument is based on four premises which Yalowitz suggests, capture the 'logical core' of Davidson's argument for anomalism. The first two premises are

the principles that Davidson uses to generate the tension with the Principle of Anomalism in *Mental Events*, namely, the Principle of the Nomological Character of Causality, and the Principle of Causal Interaction. The former states that: "[W]here there is causality, there must be a law: events related as cause and effect fall under strict deterministic laws." The latter: "[A]t least some mental events causally interact with physical events." (*ME*; 208) To this Yalowitz adds the thesis established by Davidson in (among other papers) *Actions, Reasons and Causes*,[11] of the causal nature of reasons and actions. Finally, he adds the premise of the anomic nature of causally defined or dispositional properties.

He spends some time defending these last two additions. First, he explains and defends his view that Davidson defines psychological concepts causally. The propositional attitudes are individuated in terms of the propositions they are directed towards. This means that they are partially defined in terms of the states of affairs that cause them. In addition the attitudes play different roles in causing behaviour, in that sense they can be understood to be dispositional. If we grant his final premiss, about the anomalous nature of causally defined or dispositional properties, the anomalism of mental properties follows directly. In this way Yalowitz is able to shelve considerations about rationality and its role in Davidson's argument. Yalowitz's aim is to answer the question:

> [A]re causally defined concepts fit for inclusion in strict laws? If they are not, and we follow Davidson in understanding psychological concepts as causally defined, then mental anomalism follows directly. (Yalowitz; 1998; 202)

This is the question he thinks Davidson should also aim to answer in order to establish the thesis of nomological irreducibility.

Yalowitz argues that Davidson accepts that causally defined properties are anomic and goes on to suggest that not only does Davidson define mental concepts causally, he is continuing a tradition that denies that such concepts can be subsumed under strict laws. The view originates with Hume and Mill and continues through Russell and Quine. It is also, I think, one that Yalowitz is right in wanting to ascribe to Davidson. In what follows I give an outline of what it involves. In order to make sense of it, we need first consider what counts as a strict law. Roughly, whether a generalization is a strict law will depend on the possibility of enumerating completely the conditions that will limit the application of the generalization. It is not the case then that it guarantees the effect, but rather that one is certain under what

[11] Hereafter abbreviated *RC*.

conditions the effect will not occur, that distinguishes a strict law. It requires that any *ceteris paribus* clause that hedges a generalization must, at least, in principle, be open to complete enumeration:

> Through this sort of explication process, one can turn a statement of the form, '*ceteris paribus*, p→q' into one like '(c&p)→q,' where 'c' is the fully specified set of conditions that must obtain if q is to follow exceptionlessly from p. To a first approximation, John Mackie's notion of an INUS condition provides a useful model for explaining the status of these features: each one will be an insufficient and non-redundant part of an unnecessary but sufficient condition for the effect-type. (Yalowitz; 1998; 189)

When we give a causal explanation of some effect type we do so by isolating one or one set of types in the antecedent of whatever strict law covers the case. Calling that isolated type or set 'the' cause is strictly speaking false, since it (by itself), is not sufficient for bringing about the effect. Of course, the condition cited is a subset of the complete and sufficient cause, but very often we do not have such a complete antecedent. Thus, suggests Yalowitz, we can draw a distinction between INUS conditions and CP (*ceteris paribus*) conditions, where the former is an isolated type taken from a complete antecedent and the latter a specified type featuring in an incomplete antecedent (hence hedged by a non-explicatable *ceteris paribus* clause).

Insofar as the special sciences are not complete closed theories, all predicates formulated in the vocabulary of one of them will be of the CP type. INUS conditions are formulable only within a closed theory. All we need to notice, for our purposes here, is that such predicates (ones formulated in the vocabulary of a special science) aren't fit for inclusion under strict laws. It is due to the interest-relativity of the special sciences that they employ such concepts and hence that the generalizations are necessarily CP ones. Furthermore, Yalowitz insists that the Principle of the Nomological Character of Causation entails that there are INUS conditions. Thus there must be a closed theory under which strict laws are formulable. The interest relativity of the special sciences is reflected in our use of dispositional/causally defined properties. Very generally this interest-relativity involves our making generalizations hedged by *ceteris paribus* clauses that are not fully explicable under the terms of the science; that is, we're avoiding making explicit a set of sufficient conditions for the satisfaction of the consequent, just insofar as the generalization fulfils some explanatory purpose.[12] The terms we use to describe the effect reflect our interest and constrain the explanation that will be

[12] Davidson makes clear that this is his view concerning explanations in psychology: "Explanations by reasons avoid coping with the complexity of causal factors by singling out one, something it is able to do by omitting to provide, within the theory, a clear test of when the antecedent conditions hold." (Davidson, 1980; *Psychology as Philosophy*; 233 – 234)

appropriate to it. In aiming at a satisfactory explanation we notice that our particular interest in any given case is betrayed by the dispositional nature of the concepts we employ. Such dispositional concepts can be understood to define things in terms of what it is apt to bring about under certain conditions or in terms of the conditions that are apt to bring it about.

This makes the generalizations ones hedged by *ceteris paribus* clauses: such properties are defined in terms of bringing about certain occurrences or as having certain tendencies to bring them about under certain conditions:

> [D]ispositions (causally defined properties) are at best tendencies and never 'sure-fire', and so dispositional explanations are essentially *ceteris paribus.* (Yalowitz; 1998; 205)

I do not see anything in Yalowitz's argument so far that Davidson would object to, but it doesn't establish the conclusion that Davidson wants to argue for. Notice that it is consistent with the view that once we change the vocabulary in which the generalization in the special science is couched, we will be able to account for the exceptions in terms of INUS conditions (assuming physics is a closed theory).

By ignoring considerations about rationality and its role in Davidson's argument, the claim Yalowitz establishes shows psychology to be lawless in the same way all the special sciences are lawless. The interest-relativity inherent in causally defined concepts, on the basis of which Yalowitz thinks lawlessness is secured, is a feature of all our theories with the exception of physics. What has been established is that:

> All of the [special sciences] answer to particular explanatory interests, and are thus selective with respect to the total sufficient condition for an effect-type; the causal definition, and the anomalism of their vocabularies is owed to this interest relativity and selectivity. 'Ultimate physics', on the other hand, 'treats everything without exception as a cause of an event if it lies within physical reach.' (Yalowitz; 1998; 213 - 214)

In what follows I want to suggest that this sort of argument is at the very basis of the distinction between heteronomic and homonomic generalizations that Davidson draws. The conclusion that we draw on the basis thereof accurately reflects the distinction between heteronomic generalizations that are found in the special sciences and homonomic generalizations in physics.

The distinction between homonomic and heteronomic generalizations plays a central role in Davidson's argument for anomalism. Here is how it is drawn:

> On the one hand, there are generalizations whose positive instances give us reason to believe the generalization itself could be improved by adding further provisos and conditions stated in the same general vocabulary as the original generalisation. Such a generalization points to the form and vocabulary of the finished law: we may say that it is a homonomic generalization. On the other hand there are generalizations which when instantiated may give us reason to believe there is a precise law at work, but one that can only be stated by shifting to a different vocabulary. We may call such generalizations heteronomic. (Davidson; *ME*; 219)

In order to make this distinction clearer, we can consider a generalization qualified by a *ceteris paribus* clause. The suggestion seems to be as follows: This generalization is homonomic just in case:

(1) The *ceteris paribus* clause can be fully explicated, and

(2) The vocabulary in which it is explicated/explicable is the same one in which the generalization is couched.

A generalization is heteronomic, just in case:

It is a generalization qualified by a *ceteris paribus* clause, where,

(1) The clause cannot be explicated in the same vocabulary as the generalization, but

(2) It can be shown to be a strict law by shifting the vocabulary in which it is couched such that the qualifying clauses can be enumerated in a different vocabulary.[13]

The distinction, as Yalowitz rightly points out, is not between strict and *ceteris paribus* laws. Both sorts of generalizations are *ceteris paribus* and neither are strict laws.[14] What differentiates them is the possibility of enumerating the conditions implied by *ceteris paribus* qualification in the same vocabulary.

Consider again the distinction between CP conditions and INUS conditions as Yalowitz draws it: An INUS condition is an isolated type drawn from a complete sufficient condition for an effect-type. Yalowitz points out that the relation between these types is of a part/whole nature. An INUS condition is a part of a sufficient condition which itself is complete. Besides these conditions he thinks we need to introduce another sort that is not sufficient for the effect-type. This one, however, does not stand in the part/whole relation with a complete and sufficient condition as the INUS condition does. He calls such conditions CP, *ceteris paribus*, conditions. It is necessary that we have such conditions, because INUS conditions are fit for inclusion under strict laws. They are formulated only in the terms of a closed theory that

[13] Fodor's account above might be a useful model for how such explication is possible (pp. 17 -18 above).

[14] Here the *ceteris paribus* clause does not match up with Yalowitz's *ceteris paribus* conditions. The clause here just reflects the fact that there are conditions that limit the application of the generalization whether or not those conditions are enumerable.

makes it possible that they form parts of complete sufficient antecedents. If there are predicates that are not subsumable under laws they cannot be of this type. Yalowitz's CP conditions therefore make room for properties that do not form part of a complete sufficient condition for its effect-type. Now we have already seen above that these will be special science predicates, given that they are interest-relative and occur within open theories, it is not possible that they form part of complete sufficient antecedents. Yalowitz thinks that what we must show, if we want to show that the mental is anomalous, is that the properties we employ in the generalizations we make are of the CP type here discussed.[15] My claim now is that the distinction between CP and INUS generalizations amounts to the exact distinction Davidson draws between homonomic and heteronomic generalizations.

Generalizations of the former sort (homonomic) are made in physics and made in terms of INUS conditions. Given that the generalization is made within a closed theory, a full and complete sufficient condition can in principle be formulated and the INUS condition isolates some subset thereof. Generalizations of the latter sort (heteronomic) are made in the special sciences, and insofar as these do not aspire to be closed theories, there is no hope that they can provide complete sufficient conditions for the occurrence of the effect type. These explanations are necessarily hedged by *ceteris paribus* clauses that cannot be fully explicated in the terms of the science. Just after Davidson draws the distinction, he says:

> I suppose most of our practical lore (and science) is heteronomic. This is because a law can hope to be precise, explicit, and as exceptionless as possible only if it draws its concepts from a comprehensive closed theory... Within the physical sciences we do find homonomic generalizations... (Davidson; *ME*; 219)

This ought to further support the claim I am making that the special sciences and physics map quite nicely onto the distinction between homonomic and heteronomic. Incidentally, the reason for that might well turn out to be that Davidson thinks causally defined concepts cannot feature in strict laws.

What is crucially important in Davidson's argument and what I think Yalowitz is just disregarding is that 'a change of subject' isn't implied by 'a change in vocabulary' and the impossibility of psychophysical laws is premised on the idea of a 'change of subject'. Indeed, a change in vocabulary *is* necessary in order to formulate strict laws at the basis of all true generalizations in the special sciences, but we have no reason to suspect that such a change in

[15] In the rest of the paper I follow this characterization of a CP clause, *viz.*, a condition that limits the application of some law or concepts that is not fully explicable.

vocabulary results in 'a change of subject'.[16] In the case of psychology we know *a priori* that it will and therefore the formulation of strict psychophysical laws is impossible. And this 'change of subject' is the result – directly – of the constitutive element of the theory, namely, rationality.

The idea is not merely that psychology is interest relative in the same way that all the special sciences are (or could be) and that we can pin its irreducibility on that fact. It is *necessary* that psychology be so irreducible given the nature of the phenomena that it aims to explain. Yalowitz draws our attention to the following suggestions made by Davidson in *Problems in the Explanation of Actions*:

> 'We would not be changing the subject if we were to drop the concept of elasticity in favour of a specification of the microstructure' but 'Mental concepts... are not like this.' He goes on to say that 'If we drop the normative aspect from psychological explanations, they would no longer serve the purposes they do.' The suggestion appears to be only due to the normative nature of mental concepts that their dispositionality is essential to them. Without the normative nature, they would be like elasticity: nothing crucial to such concepts, or the explanations in which they figure, is lost – no subject changed – when their causal definition is traded in. (Yalowitz; 1998; 214)

Davidson is attempting to ground the essentially dispositional nature of mental properties in their normative character. Now we have seen above that dispositional properties are essentially *ceteris paribus.* If Davidson can give an argument that shows that mental concepts are essentially normative and that such normativity requires that the concepts we use in formulating the theory are causal concepts, then he will have undermined the possibility of strict psychophysical laws.

Causal concepts are concepts that depend for their application on a *ceteris paribus* clause (in the sense that the conditions that limit the application of the generalization cannot be enumerated). If normativity depends on concepts of this sort, then the possibility of strict laws is undermined by the fact that these require full explication of *ceteris paribus* clauses.[17] Surprisingly, Yalowitz doesn't seem to recognize the importance of Davidson's suggestion. He accepts the claim of the essentiality of normativity to psychological concepts and thus the

[16] The claim is just that given that strict laws are formulable only in the terms of a closed theory (physics) any strict laws that explain phenomena will be formulated in those terms. Thus, if we want strict laws relating biological phenomena then those laws will not be formulated in biological terms but in physical terms. The further claim is that there must be some aspect of the special science concepts, of biology in this case, that we can identify, that makes it unexplainable in physical vocabulary, if that science is to count as irreducible in Davidson's sense.

[17] Cf. Davidson, 1980, *Psychology as Philosophy*, pp. 232 – 234.

essentiality of their interest-relative nature. What seems clear, however, is that such essentiality is shown by, or can be grounded only by showing that a change of subject occurs as soon as a switch in the vocabulary in which we offer the explanation is affected. Such a change of subject occurs in psychology due to the constitutive element upon which the theory depends, namely, rationality, and the resulting normative nature of the explanations offered of mental phenomena.

Thus when Yalowitz (1998) suggests that:

> [The] point about the need for anomic properties in our everyday theorizing about the world appears to be indisputable. It provides as compelling a way of establishing the essential interest-relativity, and therefore dispositionality of folk-physical properties. This puts psychology back in the same boat with other causally defined vocabularies, and reinforces the generic anomalism of all. (216)

I get the impression that he must be equivocating on the notion of essentiality at play in the discussion. What we mean by essential in the discussion revolving around psychological concepts is that it is a defining feature, or a necessary property of mental phenomena that it is interest relative in the way it is. If the causal nature of the concepts are essential to the phenomena that we want to describe then there cannot be any laws relating mental and physical events. In the latter use of 'essential' something quite different is being suggested, i.e., our use of dispositional properties is essential to our being able to formulate concise and informative generalizations that are readily applicable in a wide variety of cases. Thus, essential for epistemological purposes, in the sense that it is useful and important that those concepts are available for our use in describing the world. But nothing about its essentiality so understood suggests that it is *necessary* that they are so defined just by the very nature of the subject or subject-matter. And insofar as it doesn't, Yalowitz does not show psychology to be in the same boat as the other special sciences.

Davidson seems to have a more robust metaphysical conception of the nomological irreducibility of psychology. It is in the very nature of psychology to be lawless, whereas the same does not seem to be true of other special sciences – that is, it seems a contingent fact about those theories that they are irreducible. This claim needs defence; a defence that I hope to develop in the sections below. I have not yet made the case for our accepting the claim that Davidson's argument turns on 'a change of subject', but what has been said ought to be sufficient to show that Yalowitz is operating with a mistaken assumption about the nature of the claim that Davidson wants to establish.

§IV:

One way in which we distinguish the mind, the mental, thoughts or anything that relates to what we call 'an agent' or 'a person', is by what Brentano called 'intentionality':

> On the proposed test of the mental, the distinguishing feature of the mental is not that it is private, subjective, or immaterial, but that it exhibits what Brentano called intentionality. (Davidson; *ME*; 211)

Reductionist programmes of mind must find a way of characterising intentionality in a completely naturalistic or physicalistic vocabulary. One reason Davidson resists such reduction must then be that he does not think intentionality is so characterizable. Davison's focus is on what he takes to be a particular feature of such intentionality. Something can be said to be intentional only if we can characterise it in such a way that the relations between the items in the system that we call intentional can be described as rational. Davidson's suggestion is that such rationality is a necessary condition for anything to be characterised as intentional and, therefore, as a mind or as mental.

A clearer picture of what such intentionality involves (at least for Davidson) will be helpful in the discussion that follows. Most generally intentionality involves a certain 'directedness', what may be called a 'directedness upon objects'. Beliefs and desires are intentional insofar as they are states directed upon some object or state of affairs. This is what individuates them. In particular Davidson thinks our attitudes are determinations of how we regard the truth of propositions:

> The *attitude* I have towards a propositions – belief, doubt, wonder, hope, or fear – determines how, if at all, I regard its truth. (Davidson; *The Problem of Objectivity*; 2004; 9)

The objects or states of affairs then are pointed to by the content or proposition that individuates particular attitudes. I have beliefs that some states of affairs obtain and I have desires for some states of affairs to obtain. All propositional attitudes are intentional in just this way; they are all states that are about something or other. Actions are also intentional,

what makes them so is that actions are directed toward some end or purpose. My aim here is not to investigate in any detail what intentionality involves. Rather, it is to consider (briefly) what role Davidson thinks rationality plays in our ability to so characterize these states.

I will start by investigating the intentionality involved in actions and thereafter return to the propositional attitudes. In his paper *Actions, Reasons, and Causes* Davidson wants to argue that our common sense explanations of actions – giving the reason for why an agent behaved as she did (he calls them rationalizations) – are a sort of causal explanation. I'm not directly concerned with his argument for that claim here, for now I want to investigate only the concept of an action. Actions are necessarily intentional under some description. If some piece of behaviour was not intentional, then that behaviour was not an action, no matter what else is true of it. But how can we judge whether or not something an agent did was intentional or not i.e., counts as an action? We can do so, suggests Davidson, only if we can cite the reason for which the agent did the action. Granting Davidson's thesis that reasons are causes, the necessary condition for something to be an action, he suggests, is that it was caused by a reason. In particular we must be able to cite a *primary* reason for the action.

A reason for an action is an explanation in light of which we can see the action as *reasonable* or in light of which we can *understand* the action from the point of view of the agent. A primary reason is a belief-desire pair which explains the agent's action in just this way:

> [G]iving the reason why an agent did something is often a matter of naming the pro attitude (a) or the related belief (b) or both; let me call this pair the *primary reason* why the agent performed the action. (Davidson; *italics* in original; *RC*; 4)

As a result of this requirement for an action to be intentional, it matters under what description we explain the action.

Davidson makes the point as follows. Consider an action: to use Davidson's example, flipping a light switch. That action can be described in various ways: as 'turning on the light', as 'illuminating the room', or as 'alerting the prowler to the fact that I am home', to name a few. (*RC*; 14) All these are descriptions of one and the same action. Suppose my reason for the action was that I wanted to turn on the light. That reason doesn't explain the fact that I alerted the prowler or illuminated the room. In this sense the concept of an action is intensional in character. A reason can explain an action under one description but not under another. This is an important feature of the class of mental concepts we are considering.

Davidson suggests that we can state a necessary condition for a primary reason that respects this intensional nature:

> R is a primary reason why an agent performed the action A under description d only if R consists of a pro-attitude of the agent towards actions with a certain property, and a belief of the agent that A, under description d, has that property. (Davidson; *RC*; 5)

What has so far been said should make clearer the sense in which the concept of action depends on rationality, and hence the sense in which it is a necessary condition of the intentionality that is definitive of actions. Further, it explains another feature of actions: their 'quasi-intensional' nature. Where rational explanation is present, intensionality (the descriptions under which objects are presented to us) is relevant. In this sense rationality is constitutive of action.

In what way can we show the propositional attitudes to be so dependent on rationality? Here is one way we might think the dependence justified:

> Some animals think and reason; they consider, test, reject, and accept hypotheses, they act on reason, sometimes after deliberating, imagining consequences, and weighing probabilities… Any one of these accomplishments, activities, actions, or errors is enough to show that such an animal is a rational animal, for to be a rational animal is just to have propositional attitudes, no matter how confused, contradictory, absurd, unjustified or erroneous those attitudes may be. (Davidon; 2001; *Rational Animals*; 95)[18]

Now, the question of what is required to decide whether a creature has propositional attitudes is a complex one. It is also one that Davidson thinks cannot be decided purely empirically. Of course our decision to ascribe a propositional attitude, a belief say, to some creature *is* based on empirical considerations. The judgement will be based on the behaviour of that creature and perhaps our interaction with it. Davidson's suggestion is rather that the question about what will count as evidence for ascribing such attitudes is not entirely an empirical question. Before we decide on the answer to the question about whether some creature has propositional attitudes we must determine what will decide it, in the sense of what we will base our judgement on. The latter question isn't one that can be settled empirically. What we are really interested in here is *why* our being able to attribute propositional attitudes (like belief and desire) to some system justifies our thinking that system is a rational one (or equivalently, is a mind).

[18] Hereafter abbreviated *RA*.

The answer lies in the nature of propositional attitudes and I think provides further support for the claim that rationality plays a constitutive role in our ability to characterize anything as intentional:

> The propositional attitudes provide an interesting criterion of rationality because they come only as a matched set. Obviously a rich pattern of beliefs, desires, and intentions suffices for rationality; yet it may seem far too stringent to make this a necessary condition. (Davidson; *RA*; 96)

Nevertheless Davidson thinks the stringency is justified, for it is the result of the very nature of the states that we are concerned with. To have a single thought is to have many related thoughts, beliefs, desires and so on. In order for me to believe that dogs are friendly animals, I must have beliefs about the dogs being animals, and about the nature of animals and about what is required for something to count as friendly, to name just a few.[19] According to Davidson this also suggests that any creature that we consider rational communicates and/or has a language. For the moment I think we can ignore the point that language is required in order to be able to ascribe propositional attitudes to an agent – Davidson's reason for thinking this turns on his contention that thought requires the concept of objective truth.[20] My interest here is confined only to see what role rationality plays in the holism Davidson is suggesting above.

The claim is as follows: the identity of any particular belief, propositional attitude or thought depends on its place in a system of interrelated beliefs, desires and thoughts. If we abstract the belief from this system it loses its identity, so it is essentially tied to its place in the pattern. This pattern can only be understood in terms of the logical relations between items in the system. And these logical relations are an essential feature of the propositional attitudes:

> Thoughts, like propositions, have logical relations. Since the identity of a thought cannot be divorced from its place in the logical network of other thoughts, it cannot be relocated in the network without becoming a different thought… To have a single propositional attitude is to have a largely correct logic, in the sense of having a pattern of beliefs that logically cohere. This is one reason why to have propositional attitudes is to be a rational creature. The point extends to intentional action. Intentional action is action that can be explained in terms of beliefs and desires whose propositional contents rationalise the action. (Davidson; *RA*; 99)

[19] Cf. Davidson, *The Problem of Objectivity*. P.10, he qualifies: "I do not wish to give the impression that there is a fixed list of things that you must believe in order to wonder about whether you are seeing a black snake [The example he uses]. The *size* of the list is very large, if not infinite, but membership in the list is indefinite." (*italics* in original; 10)

[20] Cf. Davidson, 1984, *Thought and Talk* and, Davidson, 2004, *What Thought Requires* and *The Problem of Objectivity*.

This account indicates the way in which Davidson thinks of rationality as constitutive of the mental.[21] His further claim, that the mental is nomologically irreducible (and also conceptually irreducible to physics) depends on the fact that he so characterises it. It is this argument that I wish to investigate and there is no better place to start than with his seminal paper *Mental Events*. I want to set aside the question of Anomalous Monism and his argument for that position. My interest is primarily in reconstructing the argument for Mental Anomalism.

§V:

Mental Anomalism involves the claim that there can be no strict laws on the basis of which mental events can be predicted or explained. Davidson's argument for this position is in part II of *Mental Events*. He mentions the fact that the argument there is against the possibility of psychophysical laws.[22] "[T]his is not quite the principle of the anomalism of the mental, but on reasonable assumptions entails it." (209) Roughly the assumptions are these: there can be no purely psychological laws, because psychology is an open theory and open theories preclude our formulating strict exceptionless laws. If there are any strict laws they are homogenously formulated in the vocabulary of a closed theory.[23] Insofar as physics constitutes such a theory, strict laws are formulable only in the vocabulary of physics. So, if there are any laws that relate mental and physical events they will be formulated in the vocabulary of physics. If the argument against the possibility of psychophysical laws (laws that relate mental and physical events) is successful, then there can be no purely physical laws that explain mental phenomena. Purely physical laws explain mental phenomena only if mental concepts are reducible to physical concepts. Thus the impossibility of formulating laws also shows mental concepts to be irreducible to physical concepts.

[21] In particular, according to Davidson mental concepts have a necessarily intensional character – the intensional character is the upshot of the fact that they are determined in terms of rational relations.
[22] Wherever I use that expression, I mean laws that govern the relation between mental and physical events. I do not mean to refer to a law formulated in terms of both mental and physical vocabularies.
[23] I mention the distinction between open and closed theories in §1 above, pp. 4 – 5.

If the argument is successful there are *no strict laws* at all on the basis of which mental events can be predicted or explained. My aim will be to show that the argument depends on certain essential features of our understanding of what rationality involves. Of course, for it to work we must accept that rationality is constitutive of the mental or plays a constitutive role in determining the mental, in the first place. Thereafter we must investigate how this regulatory function (1) bestows on those mental concepts an essentially normative nature and thereby (2) undermines the formulation of strict psychophysical laws (laws relating mental and physical events).

As a start to investigating Davidson's argument in *Mental Events*, we need first to understand how he thinks we identify mental concepts:

> What does it mean to say that an event is mental or physical? One natural answer is that an event is physical if describable in a purely physical vocabulary, mental if describable in mental terms. (Davidson; *ME*; 210)

That something is mental depends on its being describable in a certain way. This does not rule out that it is describable in other ways, but unless it is also describable in that particular way it is *not* mental. What way exactly is that? Here Davidson gives us one criterion:

> We may call those verbs mental that express propositional attitudes like believing, intending, desiring, hoping, knowing, perceiving, noticing, remembering, and so on. Such verbs are *characterised* by the fact that they sometimes feature in sentences with subjects that refer to persons, and are completed by embedded sentences in which the rules of substitution appear to break down. (Davidson; *italics* mine; *ME*; 210)

It cannot be the case that he gives us a list of verbs commonly associated with the mental. We are interested in finding out what feature of these verbs distinguish them from any others we might have had in mind. The concept(s) of the propositional attitudes depends on this idea of intensionality. It is this feature he suggests that characterizes them in the quote just cited. This feature of intensionality is essential to them, since it is the upshot of the fact that they must be related in ways that can be characterized as rational. This I have pointed out above in discussing the dependence of a belief on its place in a logical structure; it is the result of their being identifiable in terms of the logical relations they bear towards other propositions that an agent entertains. This allows that propositional attitudes can be characterised in terms of rational relations between contents.

Davidson's concern is to argue that the concepts we use in characterizing the mental are irreducible to physical concepts. He suggests that we can understand the irreducibility by

comparison with the failure of reduction in another area, a parallel case in the philosophy of language. The concern is to reduce truth in a formal system to syntactical properties. He asks us to consider a language 'L'. That language has the resources to express a certain amount of mathematical statements as well as its own syntax. Suppose we have another language 'L'' consisting of exactly the same resources in 'L' and in addition the predicate 'true-in-L'. Now it will be the case that in both languages we can pick out all the sentences that falls under the truth predicate, but in L there exists no predicate that applies to all and only true sentences of L. There exists, according to this description no biconditional of the following form:

Let x be any sentence in L, and let φ be replaced by any predicate in L,

(x) (x-is-true-in-L ↔ x is φ)

Compare this case with the mental/physical case. So L will represent the physical and L' the mental. It follows that every mental event is describable in physical vocabulary (L), but that no physical description or predicate, no matter how complex can be coextensive with a mental one (L'):

> [W]e can pick out each mental event using the physical vocabulary alone, but no purely physical predicate, no matter how complex, has, as a matter of law, the same extension as a mental predicate. (Davidson; *ME*; 215)

Davidson cautions that the analogy with truth in a formal system should not be taken overly seriously. It should be quite clear that coextensivity cannot be the worry here:

> If our analogy were pressed, then we would expect a proof that there can be no physical open sentence 'Px' true of all and only events having some mental property. In fact, ... the kind of irreducibility is different. For if anomalous monism is correct, not only can every mental event be uniquely singled out using physical concepts, but since the number of events that falls under each mental predicate may, for all we know, be finite, there may well exist a physical open sentence coextensive with each mental predicate ... even if finitude is not assumed, there seems no compelling reason to deny that there could be coextensive predicates, one mental and one physical. (Davidson; *ME*; 215)

If coextensivity is not the worry it is because the *kind* of irreducibility of mental to physical is different. So it is true that the physical vocabulary does not have the resources to characterise an event as mental and hence pick it out *qua* mental, but every mental event *can* be picked out by a physical predicate. Davidson endorses ontological reduction. Mental and physical predicates can even be coextensive. The reducibility against which Davidson is aiming to argue is that the mental can be related to the physical in a way that can be explained on the basis of strict laws. The claim is that the metal is irreducibly anomological – it resists capture in strict exceptionless laws.

In order to understand this claim we need to have a clearer understanding of what lawlikeness involves. Davidson mentions that lawlike statements are statements that support counterfactual and subjuctive conditionals and are supported by their instances. Their being so supported is an *a posteriori* constraint. We find out on the basis of experience whether some object, call it 'a', has some property 'F'. Suppose also that the object, a, is of a class determined by the property 'G', and further that other objects characterized as Gs have been observed to have property 'F'. Then those observations can be taken to support a generalization of the form, $(x)(Gx \rightarrow Fx)$. But besides that criterion of lawlikeness our judgement is made *a priori*. Nevertheless, our judgement being so made doesn't rule out that lawlikeness is a matter of constraints imposed by scientific theoretical concerns. These constraints might involve considerations about what sorts of objects can be explained on the basis of laws and how supporting instances are to be determined. It is plausible that we judge all theories to be law-like or not law-like based on the aforementioned concerns, *viz.*, the theoretical concerns of science. What I mean is that we judge theories to be scientific on the basis of the fact that application of the theory yields empirical data that support the generalizations formulated in terms of the theory to a sufficient degree. Those are exactly *not* the sorts of concerns that we wish to work with when we judge psychophysical generalisations.

The apriority that Davidson is concerned with is the result of our being able to determine whether or not a statement is lawlike on the basis of the nature of the concepts we employ to pick out the objects that we want to explain. In particular it is a concern about the extent to which such concepts share basic application criteria. If we want to seriously investigate the possibility of psychophysical laws philosophically, it must be possible to decide the question about whether generalisations that relate the mental to the physical qualify as laws on grounds other than the theoretical and empirical concerns of science. Hence, it is essential that we can decide the question by determining whether the concepts that we relate in judgements are 'made for each other' in the sense of sharing ascription criteria. According to Davidson, what justifies that we investigate the question of laws relating mental and physical phenomena philosophically, on a basis other than the concerns of science, is the following:

> If the case of supposed laws linking the mental and the physical is different it can only be because to allow the possibility of such laws would amount to changing the subject. By changing the subject I mean here: deciding not to accept the criterion of the mental in terms of the vocabulary of the propositional attitudes. (Davidson; *ME*; 216)

This is a key passage in *Mental Events* to understanding the argument against the possibility of psychophysical laws. It determines the *method* Davidson thinks is necessary in order show the impossibility of the laws in question. In order to show such laws to be impossible, Davidson suggests here we must show that once we formulate laws that link mental and physical events we are no longer doing psychology.

We are no longer doing psychology when we are no longer theorizing, describing, or understanding phenomena that can be characterised as intentional. Crucially, for Davidson, this depends on our ability to describe those phenomena as rational. To show this he must show that there are features of the concepts in terms of which he wishes to characterize the mental - the propositional attitudes - that are necessary to anything that can be described in terms of rationality, and thus as intentional. That is, he must show that once we have decided 'not to accept the criterion of the mental in terms of the vocabulary of the propositional attitudes' we decide not to accept intentionality as a criterion of the mental. Once we do that there is no reason to suppose that there is anything that we can properly characterize as *mental*. My aim in what follows will be to investigate exactly how Davidson thinks we can show this.

Davidson thinks that the failure of reduction is systematic. He discusses the failure of definitional reduction, of mental concepts to behavioural concepts, the details of which needn't concern us here. A first hint of what the feature of the mental might be, in virtue of which it is so irreducible, is contained in the following remark:

> [T]he pattern of failure [of reduction] prompts a stronger conclusion: if we were to find an open sentence couched in behavioural terms and exactly coextensive with some mental predicate, *nothing could reasonably persuade us* that we have found it. We know too much about thought and behaviour to trust exact and universal statements linking them. (Davidson; *italics* mine; *ME*; 217)

The first claim is one about what could possibly count as evidence for the truth of a universal generalisation that links mental and behavioural predicates. The second claim gives a diagnosis of the first: that there is a lack of evidence (or reason) to believe that we have found such a generalization is due to what we take to be fundamentally true of the nature of the mental. The point is that even if there were a universal generalisation of the sort just mentioned, *nothing* can justify our accepting it. This lack of justification is due to the nature of the mental itself. So, the point isn't merely an epistemological one, it is the epistemological consequence of some metaphysical truth about the mental.

Davidson's claim about the failure of reduction (broadly speaking) rests on a concern about a lack of *justification* for accepting a statement that links the mental and the physical and/or behavioural in a strictly lawlike way. What would such justification involve? It's been said already that it would be *a priori*. The procedure for deciding it has been specified: the method Davidson suggested was to investigate whether it results in 'a change of subject'. But the notion has not yet been thoroughly cashed out. One way of making sense of it is to understand Davidson to be suggesting something like the following: Concepts feature as predicates in judgements, and such concepts have conditions of application. Something must conform to various standards or rules in order for it to fall under any of a range of concepts. When we make a judgement in which two predicates are related to each other, each of those predicates answer to some set of application criteria.

To illustrate he considers two statements, one he considers to be law-like, the other not. "All emeralds are green" is law-like, "All emeralds are grue" is not. Greenness is an inductive property of emeralds, grueness is not. Putting the point in terms of being an inductive property seems to me unfortunate. It is not clear that we can judge something to be an inductive property unless we have instances to support that it is. But perhaps that is missing the point; saying that something is an inductive property is just to say that we know that it is possible that some object instantiates that property, and that if it does we would be able to recognize it. Now we see that the application of the concept 'greenness' is consistent with the application of the concept 'emerald' – we know under what conditions the statement holds true. The point is this: if we know how to apply the concept 'emerald' then we know that the property of greenness can (or should) apply to it and why. We also know under what circumstances we would be justified in saying of a particular emerald that it is green. So, the property of greenness is related to the property of 'being an emerald' in a lawlike way.

Similarly, 'grueness' is a property of emirires. If we understand how to apply the property 'grue' (when something is green examined before time t, otherwise blue) and we understand what an emirire is (something that is an emerald before time t, otherwise a sapphire), then we know that the statement 'All emirires are grue' is lawlike. This is Davidson's point:

> Nomological statements bring together predicates that we know a priori are made for each other – know, that is, independently of knowing whether the evidence supports a connection between them. 'Blue', 'red', and 'green' are made for emeralds, sapphires, and

> roses, 'grue', 'bleen' and 'gred' are made for sapphalds, emerires and emroses. (Davidson; *ME*; 218)

My suggestion has been that we know that predicates are made for each other if the concepts that are related in judgements have compatible ascription criteria and/or have interdependent ascription criteria. By the latter I mean that successfully applying the one depends on the possibility of applying the other. I suspect the former is too weak; compatibility will not be enough to rule a statement *strictly* law-like, though incompatibility will be enough to rule it not *strictly* law-like.[24] Compatibility here should be construed to involve that the concepts share at least some (basic) application conditions, such basic application conditions can be determined by the theory on which the concepts depend. What Davidson will aim to show then is that mental predicates and physical predicates are not made for each other; they do not share such basic application conditions. Theories can be understood in terms of the fundamental properties that phenomena must be ascribed in order to be explained in terms of them. These concepts determine what the theory is about. The constitutive force that regulates concepts of psychology (i.e., determines the application criteria for concepts of that theory) is rationality and this makes mental concepts essentially normative in a way that physical concepts aren't.

Davidson stresses that law-likeness is a matter of degree. I take it then that the extent to which predicates are made for each other is also a matter of degree. Davidson's claim about physical and psychological or mental concepts is not that they are radically incommensurable, but that they can be shown not to conform to each other to the degree necessary to support strict and exceptionless laws. This is to say that they cannot be made to be fully commensurable and that to insist on strict laws relating them is to force them to be so, thereby abandoning what makes mental concepts *mental*. The gap between the concepts yields generalisations that depend for application on *ceteris paribus* clauses, or is explicitly probabilistic in character:

> [I]f an event of a certain mental sort has usually been accompanied by an event of a certain physical sort, this often is good reason to expect other cases to follow suit roughly in proportion. (Davidson; *ME*; 218 - 219)

Clearly Davidson's aim is not to show that there are *no* correlations between mental and physical that can be partly explained on the basis of generalisations perceived to hold between them. His aim is to show that the mental cannot be reduced to the physical. Strict,

[24] This is all that Davidson needs to show in order to make his claim that the mental is anomalous.

exceptionless laws, require that the vocabulary in which generalisations are made is homogeneous. It requires that the concepts have the same criteria of application – that the concepts depend on the same theory. If there were strict exceptionless laws that related mental and physical events, mental concepts would have to be reducible to physical concepts in the sense that they would have the same application criteria (i.e., mental concepts would be physical ones). This, Davidson thinks, is not possible without giving up what is essential to mental concepts, thus giving up the mental entirely.

The previous point reflects Davidson's distinction between homonomic and heteronomic generalisations. It is not (just) the heteronomic character of psychophysical generalisations that make it irreducible. It is the fact that we cannot change the vocabulary so as to make it homogeneous without changing the subject. While it is true that most of what we call the special sciences are heteronomic and so not theories that relate phenomena according to strict exceptionless laws – nothing about the nature of the phenomena these theories describe suggest that if we change the vocabulary in which the generalisations are made the subject-matter of the theory would be changed.[25] Thus nothing about these special sciences as such prevents there being in principle strict exceptionless laws on the basis of which the phenomena they describe can be understood.

I want to suggest that we understand the notion of a change of subject this way: We pick out objects using the concepts of some particular theory, biology say. Suppose the object we want to pick out is a gene. Suppose also that the concept of a gene in biology is a functional one. Let's specify that the concept of a gene is that of a structure that carries hereditary information. It seems possible that we can, using the concepts of another theory, pick out that very object, a gene, that the initial theory, biology, is concerned with. Let's suppose that it can be done in chemical terms. DNA, deoxyribonucleic acid, picks out that structure in all living cells, but given that the property is functionally specified there might be some other chemical structure that can carry hereditary information. Suppose we have a disjunctive chemical property coextensive with the property of genehood (together with qualifications in

[25] In his *Comments and Replies* to *Psychology as Philosophy*, 1980, Davidson mentions this, he says: "I argued that the part of psychology with which I was concerned cannot be, or be incorporated in, a closed science. This is due to the irreducibility of psychological concepts, and to the fact that psychological events have causes that have no natural psychological descriptions. I do not want to say that analogous remarks may not hold for some other sciences, for example biology. But I do not know how to show that the concepts of biology are nomologically irreducible to the concepts of physics. What sets apart psychological concepts – their intensionality – does not apply to the concepts of biology." (241)

chemical terms for when some particular structure fails to satisfy the conditions for genehood). If we can use the chemical concept (DNA) in such a way that the change in the vocabulary does *not* make it the case that the objects we pick out (genes) lose the property that made it explainable by the original theory (biology), a change in subject is *not* affected. Davidson's aim must then be to show that once we pick out mental phenomena using a physical vocabulary, the event we so pick out lacks the property that initially justified our calling it mental.[26] While it is the case that the mental is ontologically reducible, i.e. for every mental event there is a physical description of that event, the mental is irreducibly anomological. We cannot use the physical concepts to formulate laws on the basis of which the mental phenomena can be explained *qua* mental. By doing so, we abandon the feature that made the event explainable by psychology. Thus, the possibility of laws undermines the subject-matter of the theory.

If this is right, the argument will have more or less the following structure: Mental and physical events causally interact, so they are related to one another as a matter of fact. This Davidson accepts and calls the Principle of Causal Interaction. Now suppose there is some psychophysical generalization: *ceteris paribus*, $M_1 \rightarrow P^*$. Strict exceptionless laws are formulable only in a homogeneous vocabulary, that is, in the terms of a closed theory. Physics is (or at least aspires to be) a closed theory. Psychology isn't a closed theory. Psychophysical laws are laws that relate mental phenomena and physical phenomena. If there are *any* such laws, then they are formulable in physical vocabulary (physics is the only vocabulary in which strict laws are formulable, by assumption). Hence concepts of psychology (like M_1) *must* be reducible to concepts of physics (P, where P can be a complex property, i.e., a disjunctive one: 'P_1 v P_2 v ... v P_n), if there are strict laws relating mental and physical phenomena.

$M_1 \rightarrow P$ is not a strict law; in order to make it so we need to explicate the CP clause that limits its application. To do so M_1 must be 'traded in' for P (the physical property coextensive with it). We can now formulate strict laws that connect the individual disjuncts of P with P*.[27] We account for the exceptions just in case some disjunct in P fails to be lawfully related to P*. Davidson's contention is that now we are in fact no longer picking out the

[26] As is apparent in the footnote above (fn. 25) that feature will be the fact that the phenomenon can no longer be described in terms of rational relations that make the concepts employed by psychology intensional ones.

[27] Following Fodor's suggestion in §II, see p. 17.

phenomenon that M_1 does – we have changed the subject. The concept is no longer being applied in accordance with the way psychology specifies, so that theory no longer explains the phenomenon. It is this nomological irreducibility that Davidson is at pains to establish. And the nomological irreducibility is the result of the *nature* of the mental and physical respectively. It is a metaphysical thesis that, if true, shows the mental to be *necessarily* irreducible to the physical just in virtue of what is *constitutive* of the mental.

Now that we are clearer about Davidson's strategy we can make explicit the sense in which the formulation of strict laws relating mental and physical phenomena amounts to the loss of the subject-matter of psychology. If we are to make sense of this it is the feature of the mental that results in the change of subject when we formulate strict laws that we need to understand. The criteria according to which we apply concepts within any given theory are determined by certain standards to which something must conform in order to be explained by the theory. They are in that sense constitutive of the theory – unless something can be shown to adhere to those standards or conform to those principles, we have no basis for characterising it in the terms of that theory.

As an example of such constitutivity Davidson gives the concept of length. This concept depends on a two-place predicate that is transitive and asymmetric such that:

(L) $L_{xy} \,\&\, L_{yz} \rightarrow L_{xz}$

This relation must hold between anything to which we might want to apply the concept of length, but it is also a relation that holds between anything we want to measure. In order to distinguish length, we need some empirical content. Suppose this is given by: O_{xy}. Now we have a theory of some particular range of objects:

> [T]hat there do not exist three objects a, b, and c such that O_{ab}, O_{bc} and O_{ca}. Yet what is to prevent this happening if 'O_{xy}' is a predicate we can ever, with confidence, apply? (Davidson; *ME*; 220)

This latter question is the one that makes sense of the notion of constitutivity.

The concept of length is supposed to apply to objects that conform to a set of standards or expectations: let's say, rigid, spatial objects. The point is that the concept of length itself depends on a theory that holds true of a certain range of objects, objects that are observable, spatial and measurable. Unless a theory about such objects is true, the concept of length has no application:

> Concepts such as that of length are sustained in equilibrium by a number of conceptual pressures. It is better to say that the whole set of axioms, laws, or postulates for the measurement of length is partly constitutive of the idea of a system of macroscopic, rigid physical objects. (*ME*; 221)

This constitutivity is the basis of our concept application and it gives some sense to Davidson's criteria of law-likeness: that the predicates be 'made for' one another. In part this suggests that they must have the same constitutive standards or requirements or at least that they can be made to have the same constitutive standards or requirements. It goes without saying that it must be the same objects that the generalizations, formulated in the respective theories, are about.

The mental has its own set of constitutive standards. A regulative feature, rationality, determines the requirements and standards that phenomena must meet in order to be explainable by the theory. Unless phenomena can be said to aspire to adhere to the standards that it sets, that is, unless they can be described in a way that makes it clear that they are explainable by reference to those requirements, they cannot be counted as mental. In order to apply mental concepts we need a theory about minds. We attribute to someone or something a particular belief or desire only on the assumption that it is a person, or that it is rational. Our attribution makes sense only if we have a theory about her attitudes (which theory will reflect that initial assumption that she is rational). There is nothing about such a requirement alone, namely, that our concept application depends on a theory, that makes the mental essentially different from any other metaphysical or ontological category. Every such category is determined partly by the theory which is true of it. As we've just seen, physical concepts are just so dependent.

Now that the notion of constitutivity is clear we can begin to investigate what sets the mental apart from the physical. Davidson's claim is that it is the role that the constitutive ideal of rationality plays in determining the mental that we need to consider. We've seen already in §IV how rationality enters into our understanding of two broad categories of mental concepts, *viz.*, propositional attitudes and actions. In what follows there are two further (albeit related) questions that centrally concerns the notion of rationality that we need to discuss. My aim in the rest of this section is just to disentangle partly the questions that we need to settle in the remainder of the paper. The first concerns the nature of rationality itself and in particular it is a concern about what makes that notion one that we can characterize as a norm or an ideal.

Once we have settled that question we need to see how the status of rationality as a norm or an ideal confers on mental explanations an essential normativity. The claim will be that any explanation of phenomena that recognizes an ideal as a constitutive feature must be normative. Such normativity is undercut by giving descriptive explanations; explanations on the basis of strict laws of the kind we find in physics. [28]

The ideal nature of the constitutive concept is pointed to in the following passage:

> There is no assigning beliefs to a person one by one on the basis of his verbal behaviour, his choices, or other local signs no matter how plain and evident, for we make sense of particular beliefs, only as they cohere with other beliefs with preferences, with intentions, hopes, fears, expectations, and the rest. It is not merely, as with the measurement of length, that each case tests a theory and depends upon it, but that the content of a propositional attitude derives from its place in the pattern. (*ME*; 221)

What distinguishes the mental from the physical here is that the *identity* of a belief depends in part on the theory that is true of the believer's psychology. The believer's psychology is part of what makes that belief the particular belief it is. In the case of physics the nature of the object does not so depend on the theory that is true of objects it describes or aims to describe. In the case of the mental neither theory nor subject-matter has primacy. The subject-matter partly determines the nature of the constitutive concept, rationality. Rationality in turn constrains the explanation we can give of the subject-matter. There is no independent standpoint from which the standards of rationality can be determined; it is assumed insofar as we want to understand the subject *qua* agent. The holism that Davidson mentions here is required in order for rationality to take hold in the first place and is also the result of rationality regulating the theory of propositional attitudes.

This is also at the basis of the principle of charity, our crediting agents with a large degree of consistency and rationality in order to interpret them, in order to have a theory, or construct a theory, of their psychology. For unless we assume that they fulfil such requirements, we have no basis on which to proceed to identify their propositional attitudes or make sense of what they do. In fact, it is not clear we can regard them as agents at all. The assumption of rationality is a condition of constructing a theory of the mental:

> To appreciate the limits to the kind and amount of blunder and bad thinking we can intelligibly pin on others is to see once more the inseparability of the question what concepts a person commands and the question what he does with those concepts in the way of belief, desire, and intention. To the extent that we fail to discover a coherent and

[28] Hence the change of subject: Phenomena so explained cannot be understood to be regulated in accordance with an ideal of rationality.

> plausible pattern in the attitudes and actions of others we simply forego the chance of treating them as persons. (Davidson; *ME*; 221 - 222)

Treating someone as a person involves treating them as something with a mind. Unless someone exhibits a certain degree of rationality in her behaviour, we have no grounds for supposing that the system or creature that we are trying to understand is a person or has a mind – can be understood. It is not an optional judgement that we can make based on the behaviour of some system/creature. It is a necessary assumption if our aim is to understand something as a mind.

The principle of charity is operative and required, then, to the extent that our aim is to understand someone, or what someone does *qua* person. We impose a certain structure, the structure of rationality that determines how beliefs ought to be related, from which we can derive credible hypotheses about an agent's psychology. Unless we assume that the agent has some grasp of such a rational structure we cannot begin to understand her. We can't make sense of radical incoherence and irrationality, that is, of an agent that doesn't share with us what we recognize as the fundamental constraints of rationality. If someone does not accept, say, the principle of non-contradiction, and does not reason in accord with it, we have no ground at all to suppose that the person is reasoning or thinking at all.[29] It undermines our assumption that what we are dealing with is another mind. When we aim to investigate what someone thinks or try to understand the motivation behind her action we start by assuming that she is rational:

> In our need to make him make sense, we will try for a theory that finds him consistent, a believer of truths, and a lover of the good (all by our own lights, it goes without saying). Life being what it is, there will be no simple theory that fully meets all these demands. (Davidson; *ME*; 222)

So, rationality is at the basis of our ability to characterise anything as intentional. But rationality is an ideal or a norm. Its having that status is the result of the fact that it is not characterizable, or describable, independently of a standpoint of a system that operates in accordance with it.

One way in which we can agree for something to be properly speaking an ideal is just in case we cannot say exactly what is involved in meeting the standards that it sets. Part of what is involved in rationality's being ideal is that we cannot determine before-hand precisely the

[29] Cf. Davidson (1985) *Incoherence and Irrationality*. I discuss his views regarding this at length in the next section, §VI.

conditions that would limit the application of the mental concept in question and allow us to make strict and exceptionless predictions about mental phenomena. Rather we identify certain objects (mental ones) by assuming that they answer to some set of standards (roughly our own) of what is reasonable and then aim to understand the object on the basis thereof. That is, it could conform to the standards set by the ideal *to the best of our knowledge*, but our judgement is *always* qualified. We cannot apply a concept that depends on standards of rationality without leaving room for alteration, or with complete confidence. Thus the application of mental concepts depends essentially on a *ceteris paribus* clause.[30] Davidson makes the point by saying that the mental and physical have disparate commitments; this is one way of saying that applying the concepts of each theory depends on different criteria. This is true, but it is not that alone, but also what those criteria are in fact, that prevents nomological connections.

Given the criteria that determine the mental, the explanations we have of mental phenomena must necessarily be normative. And such explanations have features that preclude them from being reformulated in terms of strict exceptionless laws. They are essentially *ceteris paribus*, in the sense that the clauses cannot be exhaustively enumerated, because the conditions that they are answerable to are ideal. The normativity is the upshot of the constitutive role of the ideal in regulating our theorizing about the mental:

> Beliefs and desires issue in behaviour only as modified and mediated by further beliefs and desires, attitudes and attending, *without limit*. Clearly this holism of the mental realm is a clue both to the autonomy and to the anomalous character of the mental. (Davidson; my *italics*; *ME*; 217)

The key consideration here is not holism, taken independently as a feature of the mental, but the italised clause – 'without limit'. Holism necessitates that all the features of an agent's psychology play an essential role in our understanding of an agent and what the agent does. The 'without limit' suggests that we cannot ever assume that we have all the information required to make judgements (i.e., apply the concepts) that are themselves beyond revision. I take strict laws to be judgements that relate concepts in a way that is 'beyond revision', in the sense that we can exhaustively enumerate the conditions that limit the application of the concepts it employs.

[30] This is what determines the nature of the concept as normative. I briefly point to the fact that the dispositional nature of mental concepts are essential to them insofar as we are going to recognize their normative nature in §III, pp. 26 -27.

The conditions that phenomena must meet in order to satisfy the standards of rationality that justify our applying the concepts is not settled in advance as is the case for the requirements to be met in order to apply concepts of physics. Actions are made intelligible to us by our ability to understand how the action was reasonable (from the point of view of the agent). The attribution of a propositional attitude is explained on the basis of how it fits into the overall pattern of the agent's beliefs and desires. It is as a result of our understanding an agent's behaviour and psychology only by employing standards of rationality that explanations we have in mental terms of an agent's behaviour are normative:

> The separation of logical spaces or constitutive ideals that underwrites the irreducibility thesis reflects a distinction between two ways of finding things intelligible. Both involve placing things in a pattern. But in one case the pattern is constituted by regularities according to which phenomena unfold; in the other it is the pattern of a life led by an agent who can shape her action and thought in the light of an ideal of rationality. (McDowell; *The Constitutive Ideal of Rationality: Davidson and* Sellars; 1998; 35)

As soon as we change the standard from one that is an ideal to something actual, that is, describe it in such a way that we know the exact conditions that must obtain in order for the standards to be met, we change the explanation that we give in light of it from being normative to descriptive.

It is *normativity* that is essential to mental concepts and essential because the constitutive force of the mental is rationality. If we change the vocabulary we remove the normativity from the concept. We formulate laws about the phenomena that enable purely descriptive explanations, but in that case the constitutive feature of mental concepts cannot be recognized to be rationality:

> The point is rather that when we use the concepts of belief, desire, and the rest, we must stand prepared, as the evidence accumulates, to adjust our theory in light of considerations of overall cogency: the constitutive ideal of rationality partly controls each phase in the evolution of what must be an evolving theory. An arbitrary choice of translation scheme would preclude such opportunistic tempering of theory; put differently, a right arbitrary choice of a translation manual would be of a manual acceptable in the light of all possible evidence, *and this is a choice we cannot make*. We must conclude, I think, *that nomological slack between the mental and the physical is essential* as long as we conceive of man as a rational animal. (*italics* mine; *ME*; 222 - 223)

§VI:

It is useful to investigate more explicitly the way in which Davidson regards the concept of rationality. In *Mental Events* Davidson points to the fact that the application of concepts within any given theory is constrained by adherence to certain standards. These standards depend on the feature(s) of the objects the theory is about that regulate and give form to the theory. All theories, then, proceed on the basis of adherence to a certain standard. Perhaps this lies behind Yalowitz's (1997) contention that:

> [N]ormative principles apply to and constitute the physical domain as well as the mental. (247)

And

> [N]ormative elements enter into physical explanation in similar ways that they do in psychological explanation; in neither case is there a sharp distinction between the two. (247)[31]

I deny that Davidson accepts this claim. The essential difference is this, the standards that physical objects must meet in order to conform to and be explained by the theory is set in advance and is characterizable and explicable from a standpoint independent of the object being described.

It is a determinate matter whether or not something counts as an object in or of physics. The case with the mental is not so straightforward. The standard to which the subject must conform is not and cannot be stipulated in advance or from a point of view independent of the subject itself. There is no way to characterize rationality from an outside point of view, one that is not itself rational. The structure of rationality isn't identifiable, so to speak, from outside the systems that exemplify it. That means that we cannot determine or fix the standard conformity to which is a sufficient condition for ascribing to a system mentality. It doesn't mean that we cannot make judgements about whether or not particular systems *are* rational, but our judgement that they are depends on our imposing, in our interpretation of them, our own standards of what rationality involves. Given that the structure is not independently identifiable the normativity that characterizes the mental is essential to it. The mental is defined in terms of a standard of rationality that itself resists codification in a set of

[31] Notice that Yalowitz claim here is not that rational elements enter into our theory construction. This is obviously true. His claim is that objects in physics must adhere to certain standards in order to count as objects of physics at all. This he thinks determines that physical concepts are normative in the same way psychological ones are.

principles that would make it possible to apply it in such a way as to yield a descriptive theory of the items that adhere to it.

The crucial point here is that Davidson conceives of the concept of rationality itself as a norm. This is in part the result of the fact that the standards of rationality are determinable only from a particular point of view. The ideality of the standards is the result of this epistemic reality combined with the claim that the standards are objective. This in turn raises a question; what determines (objectively) standards of rationality? If those standards aren't objective we appear to face this problem: insofar as it is the constitutive concept of the mental, it would seem that our application of mental concepts can itself not be objectively valid. The mistake is a result of confusing an epistemic reality - that we have no way to characterise the concept of rationality from the outside, as it were - with a metaphysical one, that the standards of rationality are not objective. It is the epistemic character of the concept that makes it impossible for us to fix the standards that rationality require once and for all, and confers an essentially normative nature to mental concepts (or any other concepts that must adhere to it) – but it is a mistake to think that our theory is therefore less than objective, or less a description of a particular feature of reality. In order to defend the claim that our epistemic position does not undermine the objectivity of rationality itself, we need to reconsider our requirement of objectivity as describable from 'no particular point of view'. For objectivity requires only a concurrence of several different points of view. My concern in this section will be partly to determine exactly what an ideal structure involves and a consideration of what is required for it to count as objective.

In *Incoherence and Irrationality* Davidson (1985) raises this very question:

> Someone who acts or reasons irrationally, or whose beliefs or emotions are irrational, has departed from a standard; but what standard, or whose, is to be the judge? If rationality is just one more value or complex set of values, then calling someone irrational would seem to be no more than a matter of expressing disagreement with his values or norms. (Davidson; *II*; 346)

Now, the problem of irrationality is a particularly vexing one, but not one that I am here interested in aside from the light it can shed on the ideal of rationality and its role in regulating psychological theory. In this regard it is useful to consider just what makes the problem of irrationality so particularly vexing. Irrationality requires a sort of inner inconsistency. It requires my believing something against my own good judgement, so to

speak. It is exactly because rationality is so central to our conception of the mental that we have such trouble making sense of inner inconsistency.

It is important that the inconsistency is inner, since it is not clear that we can characterize something as inconsistent unless the agent thinks or acts against her own conception of rationality.[32] Davidson's diagnosis is that the problem is the result of the fact that propositions are individuated in terms of logical properties. These are determined by the place of the proposition in a logical structure:

> But then it would not seem possible to have a propositional attitude that is not itself related to other propositional attitudes. For the propositional attitude itself; like the proposition to which it is directed, is in part identified by its logical relations to other propositional attitudes. (Davidson; *II*; 346)

This feature of propositional attitudes, or of the mental, more generally, is what lies at the basis of the possibility of our making objective judgements about when someone's reasoning has gone astray. Radical irrationality obliterates the possibility of our regarding something as a mind or as having propositional attitudes. If I believe everything against my own good judgement, it makes no sense to think I believe anything or have good judgement. Some principles of rationality are fundamental to our understanding and our ability to understand others.

The rules of deductive logic are examples of such fundamental principles. Davidson mentions others, for example, Carnap's 'principle of total evidence', and the principles of decision theory. He suggests that these principles are so fundamental to our understanding that unless an agent reasons in accord with them, she is impossible to understand. And this grounds the objectivity of the standards:

> [W]e have reached a point where the distinction between the standards of rationality of the agent himself and of his critic merge. It is an 'objective', though normative, judgement that someone whose reasoning is on some occasion not in accord with the principle of total evidence has reasoned irrationally. (Davidson; *II*; 346)

The claim is that rationality is a condition for having propositional attitudes at all. To think and to have a mind requires that we accept the basic principles of rationality, for otherwise it is not possible to identify something as thinking or minded at all. Thus Davidson thinks that

[32] In order to have a clear example of irrationality, and insofar as we cannot start out by assuming that the standards of rationality are objective, the only clear case of irrationality would be one of inner inconsistency, where an agent reasons against her own standards of rationality. For example, the agent accepts *modus ponens* as a principle she must reason in accordance with, but she does not accept the claim that q on the basis of $p \rightarrow q$ & p, which she does accept. By her own standards now she is reasoning irrationally.

these principles hold for any and all creatures that can be ascribed propositional attitudes. Insofar as we take ourselves to be thinking creatures the point can be made by saying that we determine the basic standards of rationality, the standards that anything must adhere to in order to count as a mind. It will count as thinking just insofar as we are able to find it comprehensible:

> This sounds sweeping, even authoritarian, but it comes to no more than this, that it is a condition of having thoughts, judgements, and intentions that the basic standards of rationality have application. (Davidson; *II*; 351)

The reason, we have seen, is the constitutive role of rationality in the application of mental concepts. The propositional attitudes are defined and individuated in accordance with their logical properties. The logical relations between them are constitutive of them and so determine them.

We might accept that this is the case, but nothing in what has been said so far is in conflict with the idea that the standards of rationality are objective, in the sense of being determinate and specifiable principles. That seems to undermine my claim that we are in a curious epistemic position with regard to this concept that involves its status as a norm, but – as Davidson emphasises – this is just due to an over-simplification:

> I have greatly over-simplified by making it seem that there is a definite, and short, list of 'basic principles of rationality'. There is no such list. The kinds and degrees of deviation from the norms of rationality that we can understand or explain *is not settled in advance*. We make sense of aberrations when they are seen against a background of rationality; but that background can be constituted in various ways to make various forms of battiness comprehensible. (*italics* mine; *II*; 352)

The important point was that the assumption of rationality is not a matter of 'mere charity' as Davidson stresses, it is necessary if we are going to interpret or aim to understand some creature or system as a person or an agent at all.

Radical irrationality undermines our ability to do so. Someone who doesn't 'reason' in accord with the basic principles of logic is not comprehensible to us. There is no point in even entertaining the idea that it is something that counts as reasoning or thinking. In fact we have no ground at all to suppose that it does. We cannot but operate on the assumption that an agent that we can recognize as such shares our most basic principles of rationality. It is only on the assumption that he does that we can investigate in what respects he might be irrational:

> The possibility of (objective) inconsistency depends on nothing more than this, that an agent, a creature with propositional attitudes, must show much consistency in his thought

> and action, and in this sense *have* the fundamental values of rationality; yet he may depart from these, his own, norms. (Davidoson; *II*; 353)

Two features of rationality are already apparent in how it is described here. First, it is in some way *constitutive* of the mental, this I have discussed in detail already in previous sections. It points to rationality being an essential feature of the mental; that mental concepts, insofar as they are *mental* must allow of being characterized as rational. Second, the concept of rationality we are here concerned with is an *ideal*, or a *norm*. It is ideal because it depends on us – what we can make sense of and what we cannot. In that sense, it is determined by us.

Rationality isn't independent of our ways of thinking. I want to suggest that the fact that rationality is like this will have important consequences for a theory in which it plays a constitutive role. This will involve investigating the second feature just mentioned. My focus here is then on the nature of rationality that allows us to characterize it as an ideal. I do not wish to defend this characterization of rationality; my aim is rather to show that it is Davidson's characterization and to investigate in what way it confers a necessary normativity on our explanations in which mental concepts feature.

McDowell (1998) makes a similar point to the one Davidson stresses here in his paper *Virtue and Reason*, about the ideal status of practical rationality, in particular about the possibility of objective value in general. He aims to demonstrate that it is only a prejudice that we have about rationality that blocks our accepting its status as an ideal. Here its ideal status depends on its being uncodifiable. Its being codifiable would amount to reducing the standard to a set of rules, adherence to which will ensure that the agent thinks or acts rationally. Applied to practical rationality the point is that no matter how careful we are in drawing up a moral code, blindly following the rules would inevitably result, on some occasions, in an action being done in accordance with the rule, that would *not* be the right thing to do.

McDowell's aim is to illustrate the point that we are hesitant to accept this suggestion (together with cognitivism about moral value) as a result of a certain prejudice we have about what is required for something to count as rational (in general). He suggests that not only does rationality require consistency, but any particular application of rationality gives content to 'the abstract requirement of consistency'. The content involves 'a specific view of what counts as going on doing the same thing' in the particular area where it is being applied:

> The prejudice is the idea that acting in the light of a specific conception of rationality must be explicable in terms of being guided by a formulable universal principle. This prejudice comes under attack in Wittgenstein's discussion, in *Philosophical Investigations*, of the concept of following a rule. (McDowell; *VR*; 58)

Witgenstein's point is that even in a case of deductive reasoning, there are no rules that we can cite that are not underdetermined by the evidence that we are acting in accordance with it. If this is so, the requirement that a certain standard be reduced to a set of rules adherence to which will ensure that we act correctly or consistently, is arbitrary – nothing depends on that ability. If this is the case, McDowell suggests, then something else must be at the heart of our confidence that we *do* in fact go on doing the same thing. Something else lies at the heart of our confidence that we act rationally: *not* that we follow rules – not that when asked we can give a concise answer for why what we do counts as going on as before.

McDowell suggests an alternative: What supports our judgement that we act and think rationally is that we share forms of life and communication from which point of view the world is intelligible to us. We are not guided by some abstract rule or state that keeps us from falling into incoherence; we are guided by our involvement in our 'shared forms of life'. Our prejudice stems from the thought that this is not enough to warrant objectively correct patterns of behaviour and thinking. No more can be required of something to count as objective – agreement within a shared form of life, quite simply because we cannot stand outside our forms of life. We misconceive of the requirements for something to count as objective if we think it involves that we be able to characterize it from some outside perspective, one that does not itself involve our participating in, and meeting those requirements. McDowell suggests that we are inclined to think that intersubjectivty is not sufficient to constitute anything properly objective (in the sense of being independent of us and our ways of thought). So the objectivity of our thinking and acting rationally as a whole is called into question.

This pattern of thought make us apt to think that we need statable rules, ones that if we were to grasp them will guarantee that we act and think rationally, but this we have seen is a misconception:

> We are inclined to think there ought to be a neutral external standpoint from which the rationality of any genuine exercise of reason could be demonstrated. (McDowell; *VR*; 70)

> [R]ationality ...is not demonstrable from an external standpoint. But to suppose that it ought to be is only a version of the prejudice [....] discussed... It is only an illusion that our

> paradigm of reason, deductive argument, has its rationality discernible from a standpoint that is not necessarily located within the practice itself. (McDowell; *VR*; 71)

It is this sort of understanding of rationality that is operative in a Davidsonian conception of the mental, McDowell suggests, and the same prejudice that stands in the way of accepting that the standards of rationality can be objective without our being able to state formulable rules that characterize that rationality stands in the way of our understanding the full force of Davidson's argument against the possibility of psychophysical laws.[33] It is to that argument I now turn.

§VII:

McDowell (1998) argues for a point similar to the one I want to make, that:

> [A]n ideal of rationality is constitutive of the very idea of the mental, and that ... ensures a special irreducibility of concepts of the mental to concepts of the natural sciences and their kin in everyday thought and speech – [and this] is central to an authentically Davidsonian philosophy. (McDowell, *The Constitutive Ideal of Rationality: Davidson and Sellars*; 30)

In order to better understand the normative nature of explanations offered in light of the ideal of rationality, that makes the mental nomologically irreducible to the physical, it is useful to investigate a particular rational capacity that we have, namely, deductive rationality.[34]

In order to explain the capacity that McDowell is concerned with it is useful to briefly consider a thesis that McGinn (1993) puts forward, one he calls logicism. According to McGinn, logic is a theory of which the subject-matter comprises some set of, or a certain type of, abstract structures. These structures are propositional and depend for their forms on the logical constants. Logic is concerned to describe these structures and the relationships between them. In doing so the theory aims at accounting for logical truth or the notion of

[33] Notice that the push towards objectivity, where objectivity is not understood in terms of intersubjectivity, but rather as requiring a point of view independent of us and our ways of thinking, undermines the status of rationality as an ideal.

[34] Whatever is here said of deductive rationality should be extended to rationality in general, that is, our capacity to reason at all, cf. McDowell, 1998, *FA*, p. 326, especially, p. 331.

logical consequence. The nature of the structures, the relationships between them and the 'laws' on which they depend must somehow allow us to determine the property of 'validity'.

A determination of the property of validity does not only make it possible to judge in particular cases that some inference is valid or when a particular case of reasoning is correct, it also allows us, more generally, to understand when reasoning counts as correct (in the sense of what makes it so). On occasion we can judge that a particular claim 'φ' follows necessarily from a set of propositions, Γ. In order to account for validity, however, we need to be able to say not of a particular case that it is so, but what makes it so:

> [L]ogic is concerned to articulate the way logical particles determine the property of *validity* - what propositions follow from what other ones, and why. Since validity is a normative notion, logic is concerned with the workings of a certain kind of norm – that which governs the activity of (deductive) reasoning. Hence the centrality of the normative notion of deductive consequence in logical studies. The subject-matter of logic consists essentially in the apparatus needed to capture the relation of deductive consequence. (McGinn; 1993; 101-102)

I am interested not so much in logical theory, but in the sense that we call this latter notion normative and the role it plays in deductive reasoning. This much is clear, that we judge logical reasoning valid or invalid on the basis of this norm, but we are not in possession of a general criterion that makes it so.

This doesn't mean that we cannot make judgements in particular cases or that we have no sense of what validity involves. In fact, if we wanted to we could straightforwardly offer a definition of it. Here is one Shapiro (2002) gives, based on an Aristotelian definition:

> Φ is a logical consequence of Γ if it is not possible for the members of Γ to be true and Φ false. (228)

So we can know with certainty in a given case that some proposition φ follows deductively from a set of propositions Γ: it follows just in case φ is necessitated by the truth of Γ. But this is clearly not to give us the general criteria that make it the case that any given φ follows in that way. This notion turns out to be central in explaining our rational capacities:

> Logic is the study of correct reasoning ... Logical consequence is an important ingredient in *proof*. Thus, we broach issues concerning what *reasoning* is, and questions about what it is to reason *correctly*. The very notion of rationality is tied in here. (Shapiro; 2002; 227)

If this is right then it should provide us with a good starting point for investigating the Davidsonian claim that rationality 'has no echo in physical theory'.

I want to set the notion of validity aside for a moment and partly in defence of this last claim, consider the thesis that McGinn (1993) attributes to Davidson (and McDowell); one he calls mental logicism:

> Logicism… is the claim that some area of discourse can be explained or characterised in terms of logical notions – that logical structures underlie the subject-matter of the target discourse. (102)

Applied to the mental case the thought is that psychology is "essentially logic-involving"; it incorporates "…any thesis that regards logical structure as an indispensible part of the domain of psychology." (104) McGinn goes on to mention that this is an ontological and/or metaphysical thesis; it is a claim about the nature of the mental and mental states and what is essential to them. From what I have said about rationality and its constitutive role in Davidson's account of the mental, it should be pretty clear that he accepts a thesis of this sort. Our aim is to understand why Davidson thinks that a theory like the one we are now calling logicism is nomologically irreducible to the physical.[35]

We need to be clear, first of all, about what, according to such a theory, the concept of a propositional attitude involves:

> Logicism takes a belief to be nothing other than a realised logical structure, so that the abstract world enters into the very constitution of the mental world; the lineaments of the latter are fixed by those of the former. (McGinn; 1993; 107)

Mental logicism is a theory about the capacity to realise these purported structures – the propositional attitudes. What is involved in our ability to structure and order propositional contents in forms that allow them to be related in ways that we recognize as coherent and

[35] I need to make explicit the fact that McGinn does not seem to be endorsing the view that I will (following McDowell) be attributing to Davidson in what follows. In particular, his view is that the laws of logic are laws of psychology and this fact determines psychological subjects as a particular natural kind. We make predictions about what subjects will think and do partly on the basis of the rules that govern our thinking. Nevertheless, I see nothing in what McGinn says about logical 'laws' that Davidson and McDowell will need to reject. Certainly they agree that it is a matter of necessity that we reason in accordance with the rules of logic, that is partly due to the fact that they endorse the thesis, namely logicism, that McGinn describes. They would both urge that the laws are not *strict* and therefore not incompatible with Davidson's claim of nomological irreducibility. McGinn's (1993) view is this:

> Nakedly stated, logicism says that psychological laws are logical laws ... A bit les nakedly, the mental logicist takes psychological laws of reasoning to be just *ceteris paribus* (henceforth 'c.p.') laws of deductive concequence. (109)

I have no doubt that Davidson (and McDowell) agrees, the point is just that the 'laws' are essentially *ceteris paribus*, the clauses cannot be explicated because the standards of rationality are ideal. Just in case the laws aren't and cannot be strict (resist explication of CP clauses) this is not in conflict with their position. They disagree with McGinn (if they do) insofar as McGinn thinks that this is all the account we need in order to explain the nature of our reasoning and thought. Davidson advances it as a reason to think that the mental is irreducible to the physical. McGinn doesn't express himself one way or another about the possibility of reduction. I will make further qualifications of this point below in discussing McDowell's account.

rational? McGinn claims that a theory of logic is also one that explains our ways of thinking. It is a theory about what is necessary in order for someone to count as rationally competent. In that sense logic is not just an abstract theory, it can be invoked to describe the empirical nature of thinking. If so the suggestion is that it has 'psychological reality'. In part our concern is to explain the structure, characterizable in terms of logic, that we *must* be able to determine and understand if we are rational animals, that is, animals that have the capacity to reason on the basis of, and in accordance with, the rules of logic.

What must be invoked here will have to be the notion of deductive consequence – without it we will not be able to characterise or explain our thinking or understand the structure(s) that determine(s) it. McGinn (1993) mentions that what distinguish logicist positions is the fact that mental concepts cannot be determined independently of our imposing a logical or rational structure – a structure determined by logical concepts and rules – onto an agent:

> To have propositional attitudes *is* to be mappable onto a normative structure in such a way as to respect consistency and consequence, a structure essentially characterised by such notions as quantification and truth-functional composition. To believe is to be disposed to track the logical consequences of the proposition that *p*. So if it isn't logical, it isn't mental either. (108)

I take it that part of the Davidsonian claim is that these notions do not properly come apart; rationality is partly determined by the mental (at least dependent on the mental) and the mental is partly determined by the rational. The latter is the upshot of the constitutive role of rationality, but the former is, I think, the consequence of the nature of rationality itself.[36] In order to account for the role of rationality in a theory of the mental and Davidson's claim that it makes the mental irreducible to the physical, it is helpful to consider McDowell's account of the role of the notion of deductive consequence in determining the structure of deductive reasoning.

To articulate McDowell's defence of the centrality of the constitutive ideal of rationality in rendering the mental irreducible to the physical, we need to put it into context by contrasting it with a view that considers that ideal to be no impediment at all to the reducibility of the mental. In this regard it is useful to consider Loar's brief treatment of Davidson's argument in *Mind and Meaning* (1981). It is his view that McDowell is objecting to in *Functionalism and Anomalous Monism*.

[36] In particular I am referring to the epistemic nature of the standards of rationality as not being characterizable or determinable independently of something that is a mind.

Loar (1981) does not dispute the role or even the essential role that rationality plays in our ascription of propositional attitudes to agents, he admits:

> We cannot make sense of patterns of attitude-ascriptions that do not satisfy certain constraints on logical consistency, and on the relative cogency of the explanations of behaviour which those ascriptions yield. (20)

What he disputes is that this aspect of our attributing beliefs and desires undermines the possibility of reducing these states (propositional attitudes) to physical ones (in particular, he thinks functional ones, but my interest is not in that aspect of his position). Neither does he think that the possibility of formulating strict laws that relate these states to others of the same kind, or to behaviour, is undermined by the constraints rationality places on our ascribing them.

He construes the Davidsonian claim, correctly I think, to involve the idea that "the constraints of rationality 'have no echo in physical theory.'" (Loar; 1981; 21) He further thinks that:

> [N]aturally if that were true (and if 'physical theory' is interpreted broadly enough to include the physical facts a functional system rests upon) then a functionalist theory of attitudes would, given the constitutive force of rationality, be wrong; *for the functional interpretation of a predicate gives it satisfaction conditions that can be met entirely on the basis of physical facts*. (Loar; 1981; *italics* mine; 21)

Notice the crucial point here: that the ascription-criteria for beliefs and desires (mental concepts) can be given in an entirely physicalistic vocabulary. This must be true of any reductionist theory of the mental. In that case rationality constraints cannot be seen as an impediment to ascription on the basis of physical facts alone.

It is this that McDowell (1998) is objecting to. He defends the view that the role of the constitutive ideal of rationality that determines and regulates the theory of propositional attitudes makes it impossible to reduce those concepts to physical ones. Such reduction would involve ascribing the mental concepts (propositional attitudes like beliefs and desires) on the basis of the same (or shared) ascription-criteria as physical concepts. According to McDowell any theory that seeks to so reduce the mental will capture at most a small part of what we understand rationality to involve and this will fall radically short of providing an adequate explanation of what we call 'the mental'.

It is the claim that rationality constraints comprise no impediment to reduction that Loar needs to defend in order to resist Davidson's thesis. This is exactly what he sets out to do:

> The important question is whether, regardless of whether propositions are referred to, the constraints on rationality correspond structurally to purely physical constraints on physical states. And there is no impediment to that. (Loar; 1981; 23)

According to Loar, a theory of propositional attitudes would specify, for example, that if a belief that (p&q) were to occur, then a belief that ~p, would not occur. And according to Loar it is possible that there are physical state types, x and y, that mirror the logical relations between (p&q) and ~p, that is, if x were to occur, y would not occur. Rationality constraints, that is, rules that determine the logical relations between contents, will ultimately generate a network of counterfactually related physical states that reflects the logical relations between the contents of beliefs. Now we need to consider McDowell's defence of Davidson's thesis of irreducibility. McDowell is not suggesting that there cannot be a network of counterfactually related physical states that Loar describes here. Rather, his point is that it wouldn't *explain* the belief that p to say physical state type, x, occurred. Neither would we explain the belief that ~p, by suggesting that physical state type, x, was not present. McDowell's claim is that in order for us to understand why ~p and (p&q) are related counterfactually as they are we need a grasp of the notion of deductive consequence. It is that which determines the normative structure that characterizes relations between beliefs. And that is not reducible to relations between physically characterized systems.[37] He must defend Davidson's view that the rational relations between propositions cannot be reflected in anything that is not itself an intentional system or a mind.

McDowell first investigates what enables Loar to make the claim that rationality in no way prevents reduction. He offers a diagnostic account, suggesting that Loar is in fact misreading

[37] This is part of what McGinn (1993) seems to accept, he says this:

> [E]xpalining why the subject formed the belief that *q* essentially involves observing that he rationally came to believe that *q* on the basis of *two* other things he believed: he believed that *q because* his belief was normatively required by his other beliefs. Forming a belief is thus represented as conformity to an ideal, not merely as fitting a regularity (however nomologically invariant) concerning which cognitive states in fact succeeds which others. In short, people necessarily believe what they logically ought to, other things being equal.(*italics* mine; 110)

Notice that McGinn specifies that part of what is needed to explain the belief that *q* is the notion of a normative requirement, this is an appeal to an ideal in McDowell's sense. It is this feature that McDowell stresses and advances as a reason for irreducibility. What is important to note is the qualifying clause: 'people necessarily believe what they logically ought to', *ceteris paribus*. If they necessarily believed what they logically ought to always and in fact, then it makes no sense to think that forming a belief is conforming to an ideal, and the '*ought'* in the last sentence would be out of place. It would then be the case that forming a belief is merely fitting a regularity. It is this feature of the mental that McDowell thinks needs explaining.

the Davidsonian thesis. He suggests that the impediment that Davidson insists on, Loar does not recognize, and he aims to make explicit what that impediment in fact is. His claim is that Loar fails to take into consideration the significance of the ideal-status of the constitutive concept that he accepts (or at least claims to accept) regulates mental concepts. As a result of this Loar fails to appreciate the distinctive sort of explanation that we must offer of mental phenomena in light of it.

McDowell suggests that at most what a theory such as Loar's can capture is the *de facto* (logical) relations between the propositional contents of particular beliefs. This isn't enough to explain the beliefs we have or do not have. It is not enough to provide a basis for belief-ascription. Now the *de facto* relations that hold between beliefs that I just mentioned, Loar calls '*a priori* rationality constraints'. These are (formal) descriptions of the "structures that must characterise the interior… of a rational mind." (McDowell; 1998; 326) Loar calls these 'L-constraints'. In formulating these constraints he is assuming that "beliefs are expressible in a first order language with indexicals" (Loar; 1981; 71).[38] The resulting constraints are more or less the rules of derivation of first order logic. In line with McGinn, McDowell thinks of deductive rationality as a certain capacity that individuals possess. The capacity involves holding beliefs on the basis of an ability to determine what beliefs follow deductively from other beliefs. McDowell's concern is to investigate what will be sufficient to explain this capacity, and his contention is that the 'L-constraints' are not. They capture at most a part of what rationality involves.

In order to understand deductive rationality we need to introduce the notion of 'deductive consequence'. That notion determines a certain normative structure, one whose approximate grasp will be sufficient to explain our ability to derive beliefs on the basis of others we have and, in that sense, explain our capacity of belief-formation. It also explains why others hold the beliefs they do, and so gives us a basis for ascribing beliefs to agents. McDowell (1998) suggests that we can picture instances of deductive reasoning as an 'approximate grasp of a normative structure', this structure determines the deductive relations that propositions stand in, so it determines 'what follows from what and what ought to be believed' (327) on the basis of the deductive relations it prescribes. In part McDowell's concern is to investigate what accounts for the '*ought*' here and/or what accounts for the 'normativity' of the structure.

[38] For a list of the constraints see p. 72 of Loar's (1982) *Mind and Meaning*.

He admonishes that we need to be careful in so picturing deductive reasoning, I take it that he does so because he thinks that if we do picture it in this way we expect the normative structure to exist independent of deductive reasoning itself, as some abstract object, and therefore as being independently determinable and describable. But that is exactly what Davidson wants to deny:

> The Davidsonian claim, now, is that this structure ... cannot be abstracted away from the relations between contents, or forms of content, in such a way that we might hope to find the abstracted structure exemplified in the interrelations among a system of items described in non-intentional terms. And in this case the claim is actually susceptible of something like proof. Someone who denied the claim would find it hard to explain how his position is consistent with the fact that there is no mechanical test for logical validity in general. (McDowell; *FA*; 327)

We need to make sure that we understand McDowell's point here.

Formal logic characterizes logical functions or rules in abstract; relations that we can see exemplified between the contents of beliefs. The point is first that *only* beliefs, propositional attitudes or something of which it is possible to say that it has propositional content, like a sentence, can be seen to exemplify those abstract relations. And this is part of what needs explaining. If we are going to understand deductive rationality proper it is not enough that we be told what the relations are according to which content must be ordered such that it is an instance of deductive rationality. Ultimately we need to understand why those relations hold between beliefs, or why one belief follows from another. If we lack that, we haven't explained what we set out to explain.

McDowell suggests that this Davidsonian claim is supported by 'the fact that there is no mechanical test for logical validity in general." (327) The 'L-constraints' describe relations between beliefs on the basis of their logical forms. These are derivable from (some) set of logical constants that determine the propositional structure of which McGinn speaks. They are the rules of derivation that characterize our thought or reasoning. What we need to notice and what is crucial to McDowell's understanding of the structure of deductive reason is that these 'L-constraints' do not and cannot fully describe or capture it. Neither, he points out, does Loar (1981) think it does:

> [The 'L-constraints'] are quite minimal; it is hard to see how one could ascribe beliefs that exhibit widespread exceptions. They do not require that one is even rudimentarily proficient at making *inferences*... (72)

McDowell's point is just that Loar does not think it necessary to incorporate into his theory the structure that determines our capacity to reason in accord with the L-constraints. This structure, he suggests, "would reflect what, in general, follows from what." (*FA*; 327) and consequently requires introducing the notion of 'deductive consequence', a notion that determines the structure and explains it.

McDowell's claim is that Davidson's concern is centrally with that very structure and the possibility of characterising *it* independently of a mind with the capacity to determine how beliefs follow from one another and why. The claim is that the notion of deductive consequence is inextricably bound up with the mental in such a way that it isn't characterizable or understandable independently of a system that operates on the basis of it:

> Davidson's claim, particularised to the sphere of rationality that we are focussing on, is that *it is that structure* that 'has no echo in physical theory', and he argues the irreducibility of the propositional attitudes to 'the physical' from the premise that *the structure of reason itself*, of which this structure [the ideal structure of deductive reason that Loar's rationality constraints do not capture] is a part, cannot be matched up to the interrelations within a non-intentionally characterised system of items. (McDowell; *italics* mine; *FA*; 327)

The point is that the *de facto* rules of derivation fail to capture the structure of deductive reasoning that explains our having (or failing to have) the beliefs we ought to. The reason involves the fact that any instance of deductive reason is only an imperfect grasp of what the normative structure requires. Our attempt to capture this structure by appeal to the rules we in fact use to draw inferences therefore fails to be an adequate characterization of the structure we want to determine. Loar's point now is that the 'L-constraints' can be reduced to inter-relations among physically characterized items, and, if that is the case, Davidson's irreducibility claim based on rationality constraints is refuted. As McDowell points out, however:

> [S]ince the L-constraints' are not meant to capture the structure of deductive reason, this involves a misconception of Davidson's premise, not a refutation of it. (*FA*; 328)

It behoves us then to get a clearer understanding of what the premise in fact is.

The crucial difference, McDowell suggests, lies in the gap between capturing an ideal and capturing what in fact characterizes instances of deductive rationality:

> [A]ny particular instantiation of deductive rationality will embody a more or less *imperfect* grasp of what, in general, follows from what. (McDowell; *italics* mine; *FA*; 328)

The crucial difference is that the grasp we have of what the standards of deductive rationality require on any occasion that we reason in accordance with it (any actual instantiation of deductive reason) will fall short of a complete and exhaustive grasp of what the standards of deductive reason (the notion of deductive consequence) require. McDowell also mentions the fact that we aren't willing to grant constitutivity to something that isn't characterizable in a way that would capture what is involved for something to satisfy the requirements to be constituted in accordance with it.[39] The claim is partly diagnostic of Loar's misconception of the premise he needs to refute.

According to McDowell, what we need to explain is our capacity to understand a belief that someone has, a belief that p, say, on the basis of the fact that it follows deductively from a belief that (p&q), that we know the agent has. In order to so understand we need to bring into account the notion of deductive consequence, a notion, we have seen, that determines the structure of deductive reason in the sense that it determines what follows from what and how. If our explanation of someone's holding the belief that p is successful, that is, if we are going to understand why the agent holds the belief that p on the basis of the fact that she holds the belief that (p&q), then it must be possible for us to place the beliefs in a structure that determines the deductive relations between them:

> [I]f we allow ourselves the idea that the relevant explanations work by locating explanadum and explanans within a structure [the normative structure we've been concerned with], it must be the ideal structure of deductive reason, not the less demanding sort of structure that could be determined by something on the lines of Loar's 'L-constraints'. (McDowell; *FA*; 229)

If our question is one that involves our explaining the fact that we acquire the sort of understanding we do of beliefs and how they relate to other beliefs, both in our own case and in the case of others that we come to understand, then we make a mistake to think that citing the rules or 'laws' of logic is going to provide an adequate understanding of this capacity. If the rules fail to explain this sort of understanding then whatever determines those rules must.

[39] This relates to the point stressed in the previous section about our being loath to accept that standards determined by something with the status of an ideal, i.e. standards not determinable and characterizable from an independent perspective, are objectively valid. If the standards of rationality are not determinable from a perspective outside of the point of view of an agent that is rational, then it is not clear that those standards are objective. If the standards are not objective it is not clear how they can be constitutive of the mental (at least as long as we want to remain mental realists). This is part of the claim that both Davidson and McDowell aim to dislodge. They do so by appealing to the fact that unless an agent conforms to our standards of rationality she is not understandable to us as an agent at all.

For now notice that McDowell's point is that insofar as 'L-constraints' do not determine the structure of deductive reason itself, it does not explain the fact that an agent holds a belief that p, in the sense that he has suggested that we understand it. The 'L-constraints' explains the fact that the agent holds the belief on the basis of the fact that the agent holds the belief that (p & q), but this is part of what McDowell suggests needs explaining, namely, what determines the relations between beliefs. According to McDowell, unless we explain the relation in terms of the notion of deductive consequence we are not crediting rationality with a constitutive role, that is, it is not rationality that determines the relation(s) that hold between beliefs as a matter of fact:

> Such a theory [as Loar's] would not have the general normative notion of deductive consequence at its disposal; so its explanations could not exploit that notion, but could draw at most on the idea of certain transitions, and refraining from transitions, that minds are as a matter of fact prone to. By Davidsonian lights, even the formulation is unwarranted; since the idea of rationality is not credited with its constitutive role, *there is nothing to ensure that it is minds that the theory is about.* (McDowell; *italics* mine; *FA*; 329 – 330)

The question we need to address, if we are going to come to grips with the ability of individuals to hold a belief that p on the basis of the fact that they hold other beliefs, say the belief that (p & q), is not one of simply stating that (p & q) entails p. It does, but we are now simply saying that as matter of fact our beliefs are related more or less in accordance with what the rules of logic dictate (in the ways that Loar's 'L-constraints' specify). Part of what we need to understand is *why* this is the case. And the only sensible answer we can give to that question, short of calling it a brute fact and so inexplicable, as Loar does, is to point to the normative requirement of deductive consequence.

The explanation that appeals to the notion of logical concequence has the additional advantage of making sense of the fact that the rules of logic holds absolutely and for all and any rational creature. It explains what we might call the necessity that attaches to logical validity. The rules of logic hold in every possible world. Now, if it is a 'brute fact' that the L-constraints characterize our ways of thinking, the relations that in fact hold between beliefs, it is far from clear that it is a matter of necessity that our reasoning depends on our ability to employ these rules. McDowell suggests that:

> [I]f we grant an explanatory role to an ideal that transcends them [the L-constraints], we can explain why they have that status [of necessity] in terms of the thought that violations would lie outside the boundaries of what is intelligible – a terrain of whose topography we have a pre-theoretical ('common-sense') grasp that outruns anything captured by Loar's '*a priori* rationality constraints'. (McDowell; *FA*; 331)

Once we invoke this ideal, the explanations that we can offer in light of it (of our reasoning and the beliefs we hold or don't) will have a particular form.[40] This is the crucial point that I want to stress; the fact that explaining our capacity to reason deductively requires our appealing to the notion of deductive consequence. That notion is itself a norm (albeit an objective one) and results in our being forced to explain mental phenomena (at least propositional attitudes) with reference to that ideal. Insofar as we offer explanations in light of an ideal, it is not an explanation that proceeds on the basis of subsuming instances under 'how things tend to happen', but rather how they ought to happen.[41]

Our ability to explain the mental in terms of the normative requires that we recognise that the constitutive role of rationality (in light of which it must be explained), functions as an ideal or a norm. McDowell's suggestion is that we can make sense of the central Davidsonian claim only if it is possible that we give proper significance to the idea that:

> [I]f someone offered to reflect the patterns required by rationality in a structure described in non-intentional terms, then, in view of the fact that… the constitutive concept functions as an ideal or norm, he would be committing a kind of 'naturalistic fallacy.' (*FA*; 328)

Recall that Davidson's claim was that the normative structure that determines the pattern of rationality cannot be abstracted away from something we call a mind. If there is something that reflects these patterns or that we describe as reflecting them, then we are also considering it as being minded. For the claim is that the ideal structure, the notion of deductive consequence, is graspable only from the point of view of an agent that reasons in accord with it. Thus once we describe something as reflecting the relations between items where those relations are determined by the ideal we have suggested regulates deductive reasoning, we are

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[40] Notice that the invocation of the ideal depends on an appeal to the thought that the objectivity of the standards of rationality are determined by the fact that 'violations would lie outside the boundaries of what is intelligible'. This is part of what Davidson aims to establish in *Incoherence and Rationality*, discussed in the previous section, §VI.

[41] McGinn draws a distinction between conformity to an ideal of rationality and conformity to an ideal of 'goodness' – an ethical ideal. While the former, he thinks, is internal to our nature as 'thinking beings' the latter is extrinsic: "Here the norms do not form part of our very nature as psychological beings." (110) He also thinks that the form the normativity takes is different as a result. The prescriptive element in the ethical case is emphasized.

> By contrast, says the mental logicist, there is no need to inflict penalties on people for failure to obey logical laws, since this is something that (c.p.) they cannot help. (110)

I don't want to deny McGinn's claim about what the logicist would say, I think that both McDowell and Davidson would agree that reasoning in accordance with the rules of logic, *ceteris paribus*, is essential to our natures as thinking beings, it is a necessary condition for thinking at all. Neither, I hope does it seem like I want to ascribe to McDowell a view in conflict with this, on the model of ethical conduct that McGinn suggests. Rather, I think that McDowell would deny the claim that our ethical natures are not intrinsic in just the same way our rational natures are. In fact it might be one and the same nature, determined by the same ideal. The normativity in either case will then not be essentially different.

attributing to that system mentality. Its status as an ideal determines that it is inextricably bound up with what we call mental, it cannot be independently characterized in a way that doesn't require a rational capacity.

Once we recognise that rationality is an ideal and necessarily so due to it's not being abstractable and therefore characterizable in terms of anything that is not a mind, or intentional (what lies outside the boundaries of sense is determined by our perspective), we recognise the essentially normative character of mental explanations:

> To recognise the ideal status of the constitutive concept is to appreciate that the concepts of the propositional attitudes have their proper home in explanations of a special sort: explanations in which things are made intelligible by being revealed to be, or to approximate to being, as they rationally ought to be. This is to be contrasted with a style of explanation in which one makes things intelligible by representing their coming into being as a particular instance of how things generally tend to happen. (McDowell; *FA*; 328)

If we recognise the mental as answerable to the constitutive ideal of rationality then it will be necessary that the explanations we offer of mental phenomena are of the former sort, namely, normative. If we resist taking the L-constraints as constitutive of mental concepts we similarly resist explaining it in terms of how things *are*, or as descriptive. Unless our explanation makes reference to or depends on the notion of deductive consequence, it is unclear that we can gain the sort of understanding that presumably Davidson suggests the attribution of mental concepts depend upon.

The explanations we offer in light of the ideal are *essentially* normative. If we recognize the ideal as the constitutive force that regulates the theory there is no other way for the explanations that belong to that theory to be. McDowell suggests that the fact that there is a gap between the actual and the ideal would only be problematic if we thought that all explanation must proceed on the basis of subsuming instances under what generally tends to happen:

> Without that assumption, the variable gap between actual and ideal is unproblematically reflected in features of the different kind of explanation I have described. (McDowell; *FA*; 331)

McDowell helpfully points out what these features are, I want to briefly consider those, and suggest that unless an explanation can incorporate, or reflect the gap, as McDowell calls it, between the actual and the ideal, that explanation cannot be of mental phenomena. Once we recognize this we must also accept that in formulating strict laws relating mental and physical

we undermine this feature of explanation, and then we have no grounds for thinking that it is mental phenomena that the explanation is about.

McDowell points to two features of normative explanations, explanations of the sort he thinks we require in order to make sense of the propositional attitudes. Such normative explanations depend on our appealing to standards that are ideal. The normativity of the explanation consists in its ability to incorporate these features, i.e., features that reflect the appeal to ideal standards. The first feature reflects our epistemic relation to the ideal that governs our thinking and reasoning. In particular, it reflects the fact that we cannot fix the structure of the ideal from a point of view that is independent of us and our ways of thinking. Rationality is only characterizable from the inside, from the perspective of an agent; from the perspective of what makes sense to us. This lies at the basis of the concept's status as an ideal. We recognize that it must be objectively valid, but at the same time we recognize the epistemic predicament of offering from an independent standpoint the necessary and sufficient conditions for something to conform to the standards that it sets. What we can make sense of is not determinable prior to our making sense of it. In this way the ideal of rationality is all encompassing; there is no standpoint outside of it from which perspective we can hope to establish its limits. It is what circumscribes, Lear (1982) suggests, our mindedness. It is only as we make progress, as we come to understand, that we recognize the conformity of what we grapple with to our conception of rationality. Lear summarizes that position:

> Our problem is that being minded as we are is not one possibility we can explore among others. We explore what it is to be minded as we are by moving around self-consciously and determining what makes more or less sense. There is no getting a glimpse of what it might be like to be other-minded, for as we move toward the outer bounds of our mindedness we verge on incoherence and nonsense. (Lear; 1982; 386)

The structure of rationality is what determines the limits of our 'mindedness', and in that sense it is objective.[42] Its ideality is the result of the fact that the standards of rationality are necessarily determinable only from a particular point of view (our own).

Now McDowell suggests that this feature must be reflected in the explanations we offer by appeal to it. Such explanations will be essentially *ceteris paribus*, in the sense that we cannot fully explicate the conditions that limit the application of the concepts regulated by it. According to McDowell we might on occasion struggle to make sense of an agent, what she

[42] The claim is that the standards are objective in the sense that something that does not conform to it falls outside of the scope of what is intelligible. See §VI above.

does or thinks. Our ability to finally make sense of her might involve a re-evaluation of what we take rationality to require, in the sense that it might "involve becoming convinced that one's conception of rationality needed correcting, so as to make room for this novel way of being intelligible" (332). And this he thinks points to an important fact about our ability to ascribe mental concepts:

> This reflects the fact that, barring a merely dogmatic complacency, someone who aims at explanations of the ideal-involving kind must be alive to the thought that there is sure to be a gap between actual current conception and ideal structure in his own case as well as in others. (McDowell; *FA*; 332)

Our judgements are qualified *and must* be qualified as long as it is offered in light of an ideal.

The other feature of the explanation that McDowell points to is that they have a 'critical dimension', this reflects a fact about the phenomena or the subjects that we want to explain. In particular it reflects the fact that agents aren't perfectly rational. If they were perfectly rational and necessarily acted and thought in accordance with the rules determined by an ideal of rationality (in the sense that they have a complete grasp of the structure it determines) it would make no sense to distinguish between better and worse reasons for believing.[43] An 'ought' would be out of place where agents act necessarily in accordance with what the standards of rationality dictates. As long as our explanation is offered in light of something that is an ideal, that suggests that the critical dimension is necessary. Part of what it means for it to be an ideal is just that it is not perfectly instantiated. Sometimes we offer an explanation of what an agent does or thinks by charging her with irrationality. We can do so only if we can judge her to be falling short of adhering to the standards rationality dictates.

My claim is that the two features are interlinked; the critical dimension of the explanations of phenomena regulated by the ideal is partly the result of the fact that we cannot fix the standards that it must satisfy once and for all from a point of view independent of the object being explained. It is a necessary consequence of our inability to fix the standard of rationality that we must regulate our thought and action in light of our best grasp of it, but that means that our thought and action are imminently open to criticism – the possibility must be there for the reasoning to have been better (or worse).

[43] If agents were perfectly rational then, although our predictions about what they would think or do would be qualified, nothing prevents complete enumeration of the *ceteris paribus* clause that limit the application of the concept. In particular, not the fact that the standards are ideal, for a complete grasp of the structure that determines the rules undermines that status.

It is this gap, the open-endedness of the structure with the status of an ideal that makes impossible explanations in terms of how things are and/or tend to happen. That is, that precludes explanation by subsumption under laws. This should not invite scepticism about whether there are mental facts. The point is merely epistemic. There are facts, but we cannot determine those facts in the same way we determine facts about physics, because our epistemic position with regard to these facts is different. Our epistemic position is determined by the fact that we cannot step outside of the constraints of rationality in order to determine what counts as rational. We necessarily determine what is rational from the point of view of the agent (or ourselves). And it is exactly *because* we cannot do so that the concept acquires the status of an ideal or a norm.

We judge an agent according to our own best standards of rationality and attribute beliefs to her by imposing a rational structure onto her various propositional attitudes on the basis of which our attribution(s) makes sense. But the gap between our own best standards and the objectively correct standards cannot be bridged, so room must be left within our explanations to be revised in the light of new and further evidence. As long as a theory of psychology is answerable to standards of rationality this must be the case. Laws rule out what Davidson calls this 'opportunistic tempering of theory'. The normativity of mental concepts is tied up with the causal nature or the interest-relative nature of the concepts we deploy in our explanations. It allows for a gap between our own best standards and the inaccessible objective standards of the ideal that regulates the theory. Again, the assumption of rationality is an essential part of constructing a theory of psychology. We cannot make sense of an agent except against a coherent pattern of beliefs, desires, intentions and so on:

> The constitutive force in the realm of behaviour derives from our need to view others nearly enough, as like ourselves. As long as it is behaviour and not something else we want to explain, we must warp the evidence to fit this frame. Standing ready, as we must, to adjust psychological phenomena to one set of standards and physical terms to another, we know that we cannot insist on a sharp and law-like connection between them. The limit, thus placed on social sciences is set not by nature, but by us when we decide to view men as rational agents with goals and purposes, and as subject to moral evaluation. (Davidson; 1980; *Psychology as Philosophy*; 239)

The point is not an anti-realist one. That there are mental events do not depend on us or on our descriptions. It is rather that they remain beyond our ability to understand and recognize as such as long as we use a physical vocabulary. It is not that they cease to exist - they cease to be explained.

§VIII:

Davidson suggests that we must determine *a priori* whether it is possible to formulate strict laws relating mental and physical events. In order to formulate such laws we must change the vocabulary of the original generalization, strict laws requires formulation in the vocabulary of a closed theory – physics. We investigate the question by considering whether, once we change the vocabulary in order to formulate the laws, we are no longer able to identify the events we wanted to explain as mental. In *Mental Events* Davidson justifies this strategy. Our judgments about the lawlikeness of generalizations are made in terms of the application criteria of the concepts that are being related in judgment. If the application criteria of the respective concepts are compatible, then the predicates are 'made for' each other. The application criteria for concepts are in part determined by the theories the concepts depend on. These theories can be distinguished in terms of the constitutive elements that determine the features that objects must have or the standards that the objects must adhere to in order to be explained by the theory. In this way the constitutive elements determine the criteria of application of the concepts of a particular theory.

Davidson's aim is to show that mental concepts and physical concepts aren't made for each other. The ascription criteria of mental and physical concepts are incompatible. Mental concepts answer to an ideal of rationality. Insofar as the constitutive element is an ideal the concepts depend for their application on a *ceteris paribus* clause, or they are essentially dispositional or causal in nature.[44] Once we formulate strict laws the *ceteris paribus* condition can be fully explicated. The clauses that limit our application of physical concepts are in

[44] Following Yallowitz (1998) we can understand such concepts to be essentially *ceteris paribus*: "[D]ispositions (causally defined properties) are at best tendencies and never 'sure-fire', and so dispositional explanations are essentially *ceteris paribus.*" (205) See § III.

principle enumerable and determinable prior to our application of the concepts, such that, it does not depend on a CP clause, or, at least, it doesn't *have* to. Given that it is an ideal that regulates our application of mental concepts, the standards to which the phenomena must conform are not and cannot be exhaustively enumerated in such a way that we can apply the concept without qualification. Such qualification is essential to anything explained in the light of an ideal. The nature of mental concepts as normative depends on their causal or dispositional nature, in the inherent qualification involved in making judgments. Insofar as Davidson thinks that this is due to the very nature of the mental, to the feature of rationality, a feature that is essential to anything that we characterize as intentional, he is committed to rejecting the possibility of strict laws. Such laws are impossible because the standard to which the mental must conform 'has no echo in physical theory'.

No matter how careful and complete our physical vocabulary, physical concepts are held in 'equilibrium' by what Davidson calls synthetic *a priori* principles. Such principles determine that the objects that the theory deals with are of a certain kind, that they conform to the standards determined by the constitutive elements of physics. Given the principles and the nature of the objects with which the theory deals they are open to a particular mode of explanation, namely descriptive. They are explained by subsumption under laws, in terms of the regularities that have, and must guide our understanding of the physical world. But unless we can countenance another mode of explanation, understanding mental events *qua* mental is beyond our power. For physical concepts cannot recognize the nature of the mental as constituted and regulated by an ideal of rationality. The recognition of the ideal's regulatory function is implied by our ability to explain the mental with reference to it, which explanation is an explanation that appeals to how things ought to be. That is, it is qualified that the explanation is one that explains a certain event to the best of our knowledge of how things are, but open to change in light of better or further evidence.

According to Davidson, the nature of the mental, the fact that rationality is essential to it constrains the sort of explanation of it that is appropriate. Physical explanations, ones made in terms of laws, no matter how true of the events described, fail and must necessarily fail to explain mental events as mental. Such events cannot be understood on the basis of strict exceptionless laws, it is anathema to their nature - it undermines the subject-matter of psychology. It follows that mental concepts aren't and cannot be reducible to physical concepts due to the sorts of explanations they find themselves, necessarily, conducive to.

I have neither been concerned to defend nor criticize this argument. My main aim has been to suggest that it is a plausible reading of Davidson's position. My concern was exclusively to investigate the nature of the argument that Davidson makes and to consider in more detail the conception of rationality and normativity involved in making such an argument.

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