

## Belief, Rationality and Psychophysical Laws

Davidson has argued<sup>1</sup> that the connection between belief and the “constitutive ideal of rationality”<sup>2</sup> precludes the possibility of their being any type-type identities between mental and physical events. However, there are radically different ways to understand both the nature and the content of this “constitutive ideal,” and the plausibility of Davidson’s argument depends on blurring the distinction between two of these ways. Indeed, it will be argued here that no consistent understanding the constitutive ideal will allow it to play the dialectical role Davidson intends for it.

### **1. Davidson’s Argument.**

Davidson argues that there can’t be type-type identities between mental and physical events because: (a) if there were such identities, then there would be lawlike statements relating mental and physical events, and (b) there can be no such lawlike statements. According to Davidson, there can be no lawlike connections between the mental and the physical because of the “disparate commitments”<sup>3</sup> of the two realms. Davidson’s argument for this claim can be schematized *very* roughly as follows:

1. The application of mental predicates is constrained by the constitutive ideal of rationality.
2. The application of physical predicates is not constrained in this way. \_\_\_\_\_.
3. Therefore, there can be no lawlike statements relating the two sorts of predicate.

According to Davidson, if we are to ascribe propositional attitudes such as beliefs and desires to people at all, we are committed to finding them to be rational. As Davidson puts it “[n]othing a person could say or do would count as good enough grounds for the attribution of a straightforwardly and obviously contradictory belief.”<sup>4</sup> If someone were treated as having such manifestly contradictory beliefs, the fault would lie with the interpretation of the person’s

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<sup>1</sup> See, especially, his “Mental Events” and “Psychology as Philosophy.” (Hereafter ME & PAP.)

<sup>2</sup> ME 223.

<sup>3</sup> ME 222.

<sup>4</sup> Davidson, “Deception and Division” p.138.

<sup>5</sup> This requirement is a clear descendent of Quine’s claim that “One’s interlocutor’s silliness, beyond a certain point, is less likely than bad translation.” (*Word and Object*, 59)

thoughts, not with the thoughts themselves.<sup>5</sup> our interpretations “we must stand prepared, as the evidence accumulates, to *adjust* our theory in the light of considerations of overall cogency,”<sup>6</sup> and in doing so we “necessarily *impose* conditions of coherence, rationality, and consistency”<sup>7</sup> on the beliefs ascribed. The constitutive ideal will thus affect which mental predicates we *actually* attribute. There is, however, no corresponding pressure upon our attribution of physical predicates. As a result, we cannot expect there to be any lawlike connections between the two types of predicates, even if the two happen to occur together. As Davidson puts it:

As long as it is behavior and not something else we want to describe and explain, *we must warp the evidence to fit this frame*. Physical concepts have different constitutive elements. *Standing ready, as we must, to adjust psychological terms to one set of standards and physical terms to another*, we know that we cannot insist on a sharp and lawlike connection between them. (PAP 239, italics mine.)

It should be stressed again (since it will be important later on) that it is essential to Davidson’s argument in these passages that we must actually *adjust* our attributions so that they *live up to* the constitutive standards.

We can see how these conflicting pressures are meant to be felt in a case like the following. Imagine that one had a device (hereafter the “cerebroscope”) that could provide one with characterizations of anyone’s brain-states in as much detail as desired. One then extensively monitored the brain states and beliefs of various subjects in hopes of finding correlations between the two. Now imagine that one found that every time a particular brain state (hereafter “@”) was detected by the cerebroscope, its subject believed that rhubarb was nourishing.<sup>8</sup> In such a case, Davidson would argue that the correlation could never be lawlike, since such psychophysical generalizations must be treated as “irreducibly statistical in character.”<sup>9</sup> Any discovered correlation between mental and physical terms would be like that between, say, a physical term like “piece of wood shaped like a tower” and a chess term like “rook.” Even if all and only the small wooden towers we encountered happened to be rooks, the connection between

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<sup>6</sup> ME 223.

<sup>7</sup> PAP 231.

<sup>8</sup> Of course, I have no reason to believe that we will find such corrections, but my pessimism on this subject is no inspired by the reasons Davidson suggests.

<sup>9</sup> PAP 240. This should not be confused with the claim that they are *probabilistic*. Probabilistic laws can project, while the ‘statistical generalizations’ need not.

the two would not be lawlike. The discovery a rook of a different shape, or a small wooden tower that wasn't a rook would always be possible. What is essential to being a rook has to do with the way it moves in a game of chess and has nothing to do with its physical make up. Since the rules of chess make no references to factors such as shape or material, it would always be possible for the two correlated kinds to come apart. The connection between the shape and the role in the game is not a necessary one, and it is easy to imagine a world in which small wooden towers were used as knights and small wooden horses were used as rooks. In much the same way, Davidson insists that there will be no *necessary* connections between mental and physical predicates even if they do happen to be coextensive.<sup>10</sup> A physical predicate can never have, as a matter of law, the same extension as a mental predicate. If the cerebroscope ever detected state @ when the belief that rhubarb was nourishing was one that the interpreter could not reasonably hold, then the constitutive ideal of rationality would require that the belief not be assigned. The constitutive ideal would block the belief assignment, but it is our attribution of brain state so apart

## 2. Robust and minimal rationality

However, Davidson's suggestion that we must act in this fashion in the face of such divergences between the cerebroscope readings and what is rational to believe stems from running together at least two conceptions of the "constitutive ideal of rationality."

On the one hand, one could view the relevant notion of rationality as 'robust' in the sense that it includes all of what we should, in fact, consider rational.<sup>11</sup> It would involve insuring both that one drew all the consequences of one's beliefs and that one made sure that all those beliefs were consistent. In addition to consistency and closure, the robust ideal might also demand that one be rational in less 'formal' ways such as only forming beliefs supported by one's evidence, revising beliefs in 'reasonable' ways, and having appropriate desires. In short, the robust conception of the ideal demands that one treat every believer as "consistent, a believer of truths,

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<sup>10</sup> "There may be *true* general statements relating the mental and the physical, statements that have the logical form of a law; but they are not *lawlike* ." (ME 216.)

<sup>11</sup> One sees such a reading of the rationality constraint in McDowell ("Functionalism and Anomalous Monism"), Haugeland ("Pattern and Being", "Dasein's Disclosedness"), and Dennett ("Intentional Systems").

and a lover of the good.”<sup>12</sup> Unfortunately, it is simply false that we must always *adjust* our interpretations so that our interlocutors turn out to satisfy such robust norms. People can be relied upon to lack both consistency and closure in their belief sets. Indeed, thoroughly living up to these ideals is probably beyond human computational capacity.<sup>13</sup> As a result, if the cerebroscope indicated the presence of brain state @, one should not be prevented from assigning the belief that rhubarb is nourishing by the mere fact that such an assignment would conflict with the robust ideal of rationality. The fact that the belief would be inconsistent with non-obvious consequences of the speaker’s beliefs in other areas would provide little reason to give up the assignment. The robust conception of rationality’s constitutive content is not one to which our actual beliefs seem to conform, and it is hardly surprising that those who presuppose robust conceptions of rationality are frequently criticized for trying to work with an ideal that our actual ascriptions clearly don’t reflect.<sup>14</sup>

As a result, if the content of the ideal is understood robustly, the nature of the ideal cannot be of the sort requires that we always bring things into line with it. There would not need to be a ‘tight fit’ between the constitutive ideal and the objects in its domain. Davidson’s argument, however, with its reliance on our making adjustments to bring our ascriptions up to the ideal, requires just the sort of tightness of fit that the robust account does not allow.

Since robust rationality is rarely (if ever) completely attained, there have been many attempts to ‘humanize’ the constitutive constraints on belief by claiming that they only require that we treat those we interpret as believing what a ‘typical’ person would if she were in their situation. Such a drive is behind not only the frequent suggestions that we replace Davidson’s “Principle of Charity” with something like Grandy’s “Principle of Humanity,” but also Goldman’s claim that when we interpret others we don’t use the Principle of Charity but rather engage in a type of ‘cognitive simulation’ in which we ascribes beliefs to others based upon imagining ourselves in

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<sup>12</sup> ME 222

<sup>13</sup> For a discussion of this issue, see Cherniak, *Minimal Rationality*.

<sup>14</sup> See, for instance, Stich’s criticism of Dennett in “Dennett on Intentional Systems” and Cherniak’s criticism of Davidson in *Minimal Rationality*.

their position.<sup>15</sup> Indeed, even these positions may ultimately be too demanding, since we can perfectly well interpret people who fail to make some of the inferences which we or any ‘typical’ person would. As a result, it can seem reasonable to exclude from the constitutive ideal any standards that we know at least some people occasionally fail to satisfy. This results in a “minimal” conception of rationality which could be applied to all our interpretations, but it leaves rationality without much of its ‘normative’ character. The minimal conception of rationality requires only that our interlocutors turn out to have the minimal reasoning power shared by anything that one could recognize as having a (rational) mind; it would involve neither perfect consistency nor closure, but only those inferences that minds are, as a matter of fact, always disposed to make. Since this minimal conception is tailored to our actual thoughts, its hard to imagine how our thoughts could ever be out of line with it. Consequently, if the cerebroscope recommended belief ascriptions which violated such a minimal conception, we might very well have to reject the readings of the cerebroscope.

However, the resulting notion of rationality is so minimal that it is far from clear that it couldn’t be captured by a physical theory, in particular, by a functionalist one. Like Davidson, functionalists deny that there are identities between mental states and first-order physical states. Indeed, their reasons for doing so are much more intuitive than Davidson’s somewhat opaque argument.<sup>16</sup> However, functionalists still allow for type-type identities between mental states and *second-order* physical states. Furthermore, while rationality constraints may have no echo in physical theory, “counterfactual constraints which are isomorphic to [them] may show up in the physical facts.”<sup>17</sup> Consequently, functionalists may be able to accommodate the minimal

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<sup>15</sup> See Grandy, “Reference, Meaning and Belief,” and Goldman “Interpretation Psychologized.”

<sup>16</sup> These reasons often draw upon the intuitively plausible claim that mental states could be realized in a number of different ways. See, for instance:

There is a quite independent reason for doubting that there are any psychophysical laws of at least one sort Davidson has in mind--namely, those that assert one-one correlations between specific propositional attitudes and structural (first-order) as opposed to functional (second-order) physical states. For it seems highly unlikely that one neural state is in all of us reserved for being, say, the belief that rhubarb is nourishing. (Loar *Mind and Meaning* p.21.)

[I]f we can find one psychological predicate which can clearly be applied to both a mammal and an octopus (say ‘hungry’), but whose physical-chemical ‘correlate’ is different in the two cases, the brain-state theory has collapsed. It seems to me overwhelmingly probable that we can do this. (Putnam “The Nature of Mental States” 436)

<sup>17</sup> Loar, *Mind and Meaning*, p.23.

rationality constraint at the level of second-order states relating to the brain's functional organization.

It is not surprising, then, that while Brian Loar claims to have no quarrel with "what Davidson calls the constitutive force of rationality in the ascription of beliefs and desires," he insists that this does not stand in the way of a functionalist account of the mind.<sup>18</sup> Loar claims that the norms of rationality can be captured functionally with the help of a series of fifteen logical constraints (which he refers to as his "L- constraints") on the brain's functional organization. These L-constraints embody simple principles (e.g., believing *not (p or q)* entails not believing *p* and not believing *q*), which Loar believes could correspond structurally to counterfactual constraints on physical states. These L-constraints are meant to generate a vast network of counterfactual relations among physical states, and should ultimately describe "a system of physical state-types whose counterfactual relations mirror the relevant logical relations between beliefs and desires."<sup>19</sup> Minimal rationality is so minimal that there is no reason to think that its entire content couldn't be captured by the L-constraints. As a result, Loar believes that one could assign to each belief predicate a distinct functional state, and still (with the help of the L-constraints) recognize the constitutive role of (minimal) rationality.

It would be impossible for a cerebroscope designed to recognize such functional states to ever assign a belief that conflicted with minimal rationality. Since the L-constraints embody the content of minimal rationality, no such functional state could violate minimal rationality, and so the readings of a cerebroscope designed to recognize such states could not either. As a result, the constitutive force of minimal rationality would pose no problems for such a functionalist. The cerebroscope readings could still, of course, assign beliefs that failed to meet the more robust standards of rationality.<sup>20</sup> However, the functionalist will insist that we should simply follow the cerebroscope in such situations. Since robust rationality represents a standard we often fail to

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<sup>18</sup> Loar, *Mind and Meaning*, p.20.

<sup>19</sup> Loar, *Mind and Meaning*, p.23.

<sup>20</sup> Indeed, there is some reason to doubt that the robust conception of rationality could ever be adequately captured by even an extended version of Loar's L-constraints. For a discussion of this, see McDowell, "Functionalism and Anomalous Monism."

live up to, a properly functioning cerebroscope *should* produce readings that conflict with it. Indeed, Loar considers it a *virtue* of his theory that the L-constraints neither “imply that the set of a person’s beliefs is deductively closed”, nor “require that one is proficient at making inferences.”<sup>21</sup> Complete consistency and closure (which are characteristic of robust conceptions of rationality) aren’t found in actual minds, and so they shouldn’t show up in functional models of the mind either.

In short, while the robust conception of the constitutive ideal’s content deprived it of its claim to a tightness of fit with the objects in its domain, the minimal conception preserves this tightness of fit only by stripping the ideal of the normative content that Davidson needs to rule out the possibility of a physical system being constrained by the ideal.

### **3. Davidson’s Dilemma.**

We have, then, two possible ways of understanding the content of the constitutive ideal. A robust way, which can’t be captured by a physical theory, but which we can understand ourselves as frequently violating, and a minimal way, which we can’t understand ourselves as violating, but which can be captured by a physical theory. Davidson, however, often tries to have things both ways, preserving both the strong normative character of the robust conception of rationality, and the tightness of fit associated with more minimal versions of it. This may be why there is no consensus over just what Davidson has in mind when he speaks of the constitutive ideal. Writers such as Dennett, Haugeland, McDowell and Cherniak all seem to think Davidson is working with a robust conception of rationality, while others such as Loar and Stich are equally confident that he has only minimal rationality in mind. This ambivalence of Davidson’s is of some consequence for his argument, which we should remember goes roughly as follows.

1. The application of mental predicates is constrained by the constitutive ideal of rationality.
2. The application of physical predicates is not constrained in this way. \_\_\_\_\_.
3. Therefore, there can be no lawlike statements relating the two sorts of predicate.

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<sup>21</sup> Loar, *Mind and Meaning*, p.72.

Unfortunately, one can only hold both premises (1) and (2) by equivocating about the content of the constitutive ideal, understanding it minimally for premise (1) and robustly for premise (2). Since no conception of rationality preserves both robustness and tightness of fit, Davidson faces the following dilemma: either (a) the rationality constraints are understood robustly, in which case we are not always required to make adjustments to fit them, or (b) the rationality constraints are understood minimally, in which case they can be mirrored by functional relations isomorphic to those constraints. If one chooses horn (a) of the dilemma, premise (1) of Davidson's argument must be given up. If one chooses horn (b), premise (2) of Davidson's argument must be given up. Whichever horn one chooses, one of the two premises turns out to be false, and Davidson's argument fails to go through.