Anomalous Monism

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Donald Davidson, in an effort to solve philosophy's mind-body prob-lem, puts forth a non-reductive materialistic theory of mind called Anomalous Monism in his seminal essays "Mental Events," "Psy-chology as Philosophy," and "The Material Mind." Anomalous Monism is a complicated thesis with a number of intricately interwoven parts. As with most theories that operate on this level of sophistication, Anomalous Monism has a number of critics, most notably Jerry Fodor and Jaegwon Kim. Generally, these critics attack Davidson's notions of supervenience and non-strict laws. They specifically challenge whether the application of supervenience and non-strict laws within the framework of Anomalous Monism is internally consistent and whether these concepts are coherent in the first place. However, if we adopt a liberal notion of explanation, Anomalous Monism can stand up and maintain consistency in the face of critical analysis.

Part I: Anomalous Monism and Token Identity

By developing Anomalous Monism, Davidson aims to resolve an "appar-ent contradiction" in three principles that he holds to be true of mental events:

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(1) The Principle of Causal Interaction: At least some mental events causally interact with physical events.

(2) The Nomological Character of Causality: Events that are causally related fall under strict deterministic laws.

(3) The Anomalism of the Mental: Mental events cannot be explained or predicted by strict deterministic laws.

All three principles, it seems, cannot be true. If the first two principles are true, then at least some mental events must stand in strict lawlike relationships with some physical events; however, this is precisely what the third principle denies. If the second two principles are true, then it seems that mental events do not causally interact with physical events. If the first and third principles are true, then it seems that causally related events do not fall under strict deterministic laws ("Mental Events" 209).

Davidson reconciles these three apparently contradictory principles by taking a "Kantian line" and "go[ing] compatibilist": the three in conjunction are compatible after all, for they imply monism, i.e., that all mental events are identical to physical events ("Mental Events" 209). If this is the case, then mental and physical events can be in causal relation and causal relations can require laws. However, there need not be mental-physical laws because strict lawlike relations can hold between certain physical and mental events—mental events that are identical with certain physical events. The identity of mental and physical events that allows all three principles to be compatible is token identity: while mental properties or types cannot be strictly identified with physical properties or types, specific mental particulars can be identified with specific physical particulars; i.e., they are event-tokens.

An important and distinctive feature of Davidson's theory of mind is its subject matter—events, as opposed to processes or states ("Mental Events" 210). Events enjoy a kind of ontological primacy; they can be described in differing vocabularies and therefore make the ideal subject matter when contrasting or identifying the mental and the physical. Mental events, in Davidson's view, are events described with psychological verbs and vocabulary—propositional attitudes—and therefore create non-extensional or intensional contexts ("Mental Events" 210–11). Hence, a mental event description is a natural language sentence in which the principle of substitution of co-referential terms *salva veritate* does not necessarily hold. For example, if "Spiderman" and "Peter Parker" have the same extension, i.e., if they denote the same person, then sentences such as "Spiderman saved Mary Jane from a speeding train" and "Peter Parker saved Mary Jane from a speeding train" are equally true. However, a sentence like "J. J. Jameson believes Spiderman

saved Mary Jane" does not necessarily retain its truth value under substitution of the co-extensional term "Peter Parker" for "Spiderman," since J. J. Jameson may not *believe* that "Spiderman" and "Peter Parker" denote the same person. If he thinks that "Spiderman" and "Peter Parker" denote two different objects, then it may be true that he believes that Spiderman saved Mary Jane, but it may not be true that he believes that Peter Parker saved Mary Jane.

This criterion of the mental, according to Davidson, covers all events, including archetypal mental events such as pain and raw sensation. Take, for instance, a purely physical description of an event: "A certain meteorite lands on earth at time t." Yet, if there was a mental description—"the event Susan believes to have occurred at time t"—then the first event has been given a mental description and is therefore a mental event ("Mental Events" 211). While this criterion is far too inclusive to get at the unique quality of the mental, it is profitable for the monism of Anomalous Monism since this type of "Spinozistic extravagance" leaves no genuine mental event uncovered ("Mental Events" 212). Davidson claims that the physical realm is "recessive" in relation to the mental: every mental event is necessarily physical, but not every physical event is necessarily mental ("Mental Events" 211; 214). However, despite Davidson's claim, this "extravagance" may in fact make every physical event mental: "the event Susan believes to have occurred" or "the event Susan *does not* believe to have occurred" would exhaustively describe every physical event as a mental event. Davidson responds to this issue with the non-extensional criterion: mental events are distinguished by their intensionality, and while all mental events are identical with certain physical events, there are some physical events that do not exhibit intensionality—they are explained in purely extensional terms.

For Davidson, there are two reasons that strict psychophysical relations are impossible: the holistic character of the mental and the rational constitution of the mental. In order to intelligibly assign beliefs and desires to others, one must implement a holistic approach: an entire context or background of many other beliefs and desires must be attributed based on previous experience ("Mental Events" 221). For example, to assign the desire to eat a steak to an agent, one must make a number of assumptions about that agent (i.e., one must assign a holistic network of beliefs and desires to her): the agent believes that she has not eaten recently and is therefore hungry; the agent believes that she is not a vegetarian; the agent believes that she enjoys steak; the agent believes that she does not desire to eat something else that is available now; etc. Thus, because the mental is only intelligible in light of a vast network of beliefs and desires (a network that can be expanded *ad infinitum*), it is impossible to define a mental state in terms of dispositions to behave without necessarily making further assumptions about that agent's mental states.

The other reason for denying the existence of psychophysical laws is that the mental and the physical have differing constitutive elements. To explain the notion of "constitutive elements," Davidson uses the example of transitivity of preference as constitutive of choice ("Mental Events" 220–21). For instance, if George prefers grapes over apples and prefers apples over oranges, then George must prefer grapes over oranges. Assigning George the choice of an orange over a grape reveals a flaw in this theory of choice unless we can rationally assign this desire given his preference, say, by attributing the belief that the grapes are out of season or that they are poisonous. Just as transitivity is constitutive of preference, so rational consistency is constitutive of belief and desire attribution. Mental events are always assigned in light of and in relation to other mental events that fit a standard of rationality ("Mental Events" 223). For example, we may explain why George drank a glass of wine through a number of different possible belief-desire holistic networks: George believes he enjoys wine; George desires to get drunk; George enjoys grape juice and mistook the wine for grape juice, etc. In order to attribute propositional attitudes to others, agents are guided by a "constitutive ideal of rationality": agents assume that other agents are like themselves, rational with consistent preferences ("Mental Events" 223). Assumptions and predictions about physical events are not guided by any such rational principle ("Mental Events" 225). One would not explain the falling of a rock off of a cliff by way of rationally assigned and assumed beliefs that the rock held, e.g., that it is an adrenaline junky and that falling off of cliffs is exhilarating. The problem is the disparate vocabularies of the physical and the mental.

As stated before, Davidson implements token identity in order to explain away the contradiction in his three principles. Yet this notion is at first blush problematic for Anomalous Monism: token-physicalism is a very weak formulation of physicalism. For if mental events are only token-identical with physical events, and not also type or property identical, then mental event-types need not be dependent on physical event-types. For example, the emotion of happiness may be identical with a certain happiness brain state today, but tomorrow, the same emotion could be identical with a non-brain state physical event such as toenail growth. If mental and physical types are completely independent of each other, what is stopping Anomalous Monism from falling under the category of property dualism? In order to preserve Anomalous Monism's claim to physicalism, Davidson holds that there is a supervenient relation between the mental and the physical. Specifically, while mental and physical tokens are identical, mental types are supervenient or dependent on physical types. In this way Davidson hopes to find a middle position between type-identity or reductionism and property dualism. Since much of the initial onus for his success falls on the notion of supervenience, we now turn to discussing it.

Part II: Supervenience

When Davidson first introduced the notion of supervenience to the philosophy of mind in 1970, he did so to bolster his version of token physicalism (Horgan 153). In its most general articulation, supervenience is the claim that if there are two sets of properties A and B such that A supervenes on B, then there cannot be an A-difference without there also being a B-difference. Supervenience moves in one direction: if two individuals differ in some mental aspect, then they differ in some physical aspect, and if they are the same in some physical aspect, then they are the same in some mental aspect. As other philosophers looked to the notion of supervenience to create physicalist theories of mind, a panoply of possible understandings emerged: weak, strong, and global supervenience (Horgan 155). While there are several varieties of supervenience, Davidson's best option vis-à-vis the consistency of his overall project is "weak" supervenience.

Weak supervenience holds that "necessarily, if anything has an property F in A, then there exists a property G in B such that the thing has G, and everything that has G has F" (Horgan 155). For example, suppose that taste weakly supervenes on scent and that a specific taste property "the taste of an orange" falls under the property set of "taste" such that there exists a specific scent "orange smell" that accompanies the "orange taste" in a certain orange; in that case, everything that has the property "orange smell" has the property "orange taste." However, to hold that taste weakly supervenes on scent means that there could be another possible world where taste does not necessarily supervene on scent, e.g., a world where there is an abundance of a certain atmospheric gas that completely neutralizes the orange scent. Thus, weak supervenience is weak insofar as it does not hold across all possible worlds.

"Strong" supervenience, however, holds that "necessarily, if anything has property F in A, there exists a property G in B such that the thing has G, and *necessarily* everything that has G has F" (Horgan 155). For instance, if being a living organic life form strongly supervenes on being composed of carbon, and if a certain arrangement of carbon composes a specific living frog, then every individual entity that has the property "is composed of a certain arrangement of carbon" also has the property "is an organic living frog," across all possible worlds. Therefore, strong supervenience can compare entities in different possible worlds. That is, if the aforementioned strong supervenience relation holds and if there existed two entities in two different worlds, each of which had the property "is composed of a certain arrangement of carbon," then both entities (even if they have radically different physical structures) necessarily exhibit the property "is an organic living frog." Strong supervenience entails weak supervenience

since a strong supervenient relation would hold in any one possible world because it holds across all possible worlds. Weak supervenience, however, does not entail strong supervenience.

"Global" supervenience expands to compare properties between entire possible worlds: "There are no two physically possible worlds which are exactly alike in all physical respects but different in some other respect" (Horgan 155). While weak and strong supervenience make claims about relations and properties between individuals, global supervenience addresses other factors. For instance, one could say that all natural laws of a given possible world supervene on particular facts about that world. In such a case, there cannot be another physically identical possible world that differs in its natural laws.

Therefore, when matching a supervenience thesis with Anomalous Monism, one needs to charitably assign a type of supervenience to Davidson's project: that is, one must devise a theory of mind compatible with the other three theses making up the position. Some of these theses, such as strong supervenience, can be ruled out immediately. Strong supervenience entails strict laws insofar as it posits a relation that holds true in all possible worlds. Davidson wants to avoid these types of strict laws connecting the mental and physical realms in order to preserve what he holds to be true of the mental—that the mental cannot be explained or predicted by strict psychophysical laws ("Mental Events" 208). Here it is important to note that Davidson rejects strict laws between possible worlds as well as within one possible world. Unlike strong supervenience, global supervenience is too weak insofar as it relates entire worlds rather than individuals, so two or more individuals could be in the same physical state but not in the same mental state. The global thesis guarantees only overall sameness in that mentality supervenes on overall physical sameness, and therefore is a type of physicalism robust enough to guarantee that individuals who are physically the same are psychologically the same.

Weak supervenience is Davidson's most sensible option for maintaining the consistency of Anomalous Monism. However, weak supervenience may prove to be too weak: it leaves open the possibility that different individuals from different possible worlds have the same physical properties but have different mental properties. Another way the weakness of weak supervenience shows itself is as follows: if there is a change in any mental property then there is a change in some physical property, but weak supervenience does not explain what that physical difference is or whether it is even relevant to the mental. For example, if an individual were in the same mental state (say, anger) at different times, and the first time the cessation of that mental state was accompanied by a physical change (say, a neurological change), then the second time the individual would also experience a physical change when he or she ceases to be angry. However, according to weak supervenience, that physical change might be something we would consider irrelevant to anger (say, eyelash growth). Davidson therefore finds himself in a dilemma: if the weak thesis is strengthened to be about brain states, then the thesis seems too strong insofar as it is relating types (mental event-types with brain event-types); on the other hand, if left in its current articulation, the mental may depend on a change in the physical that is not relevant to the mental. Thus, anomalism of the mental does not imply that there can be no psychophysical laws, but rather that there can be no *strict* psychophysical laws. Perhaps if we more fully explained the non-strict laws linking the mental and the physical we would get a more robust connection between the two without running afoul of Davidson's rejection of strict psychophysical laws, because these non-strict laws are what underwrite the supervenience of the mental on the physical.

Davidson uses an analogy to explain this kind of supervenience: he likens mental propositions to Tarskian truth predicates and physical vocabulary to a natural language's resources to describe its own syntax ("Mental Events" 214–15). With this analogy, Davidson is making the point that even if one could list all the true sentences in a language, the list would not explain in virtue of what each is true. The list does not offer a definition or meaning of truth, yet the property of truth would supervene on the grammatical property of well-formedness. The sentence that is syntactically the same as a true sentence will be true; however, this is not to say that truth is reducible to syntax. In other words, truth as a semantic property supervenes on the syntactic property of well-formedness, but clearly truth is not syntactic.

Davidson's reference to Tarskian truth predicates is analogous to the mental/physical dichotomy: even if we could pick out each mental event using only physical predicates, the mental would not be reducible to the physical or defined within it. The mental and the physical pick out the same event (they have the same extension by token-identity), but they pick it out in different ways (they produce different descriptions of the same event). A shift in vocabulary is necessary. For example, we could describe George's dislike of the smell of vodka in completely physical terms, singling out the mental event: rarefied alcohol molecules interact with George's olfactory sensors, data is transmitted from the olfactory sensors to George's brain, and specific neural patterns fire in George's brain. Yet this physical description does not have the same intension as "George's dislike"; it addresses only the physical correlates and not the psychological mechanism. Thus, the mental retains its anomalism insofar as mental types are not reducible to physical types (and therefore Davidson need not be committed to strict correlating laws). But if singular mental events (tokens) can be identified

with physical tokens, then mental events can causally interact with physical events. Because they are described in a physical vocabulary, mental events are physical events also, and physical events stand in causal relation to each other. Thus, Anomalous Monism supplemented by supervenience may offer Davidson what he needs—a robust token-identity form of physicalism. However, opponents have argued that this solution, Anomalous Monism combined with supervenience, leads to epiphenomenalism. So we now consider the accusation of epiphenomenalism and Davidson's response.

Part III: Supervenience and the Charge of Epiphenomenalism

The charge of epiphenomenalism is the allegation that Anomalous Monism does not provide a causal role for the mental. In response, Davidson argues that if laws underwrite causal relations and there are no psychophysical laws, then mental events can cause physical events only in virtue of other physical events and so are predictable and explainable using purely physical laws. However, the sharp criticisms of Jaegwon Kim force Davidson to look elsewhere in order to bolster his physicalist theory.

The charge of epiphenomenalism arises because of the conclusion of the aforementioned inconsistent triad—token identity. To recapitulate, causation requires laws and there are no mental-physical laws, yet mental events cause physical events. This is because mental events *are* physical events. If this is so, mental events can cause physical events because physical events can cause each other, and they can do so because physical laws underwrite them. In short, mental events can cause physical events because mental events are physical events. But if this is true, then all the causal work that a mental event does is due to its physical properties. For example, if desire for peanut butter is identical with a peanut butter brain state and there is a law correlating the two physical events (i.e., peanut butter brain states cause peanut butter sandwich eating behavior), then the desire (mental event) for peanut butter might be said to cause the physical behavior, but only as articulated as the peanut butter brain state (physical event). The desire is causally inert; it is the brain state that causes the physical behavior. Hence the charge of epiphenomenalism: the mental may be relevant to the physical, but the mental is causally inert because an event's causal powers rest entirely on its physical properties.

In his 1993 essay "Thinking Causes," Davidson offers a response to critics who claim that Anomalous Monism is nothing more than epiphenomenalism. The main thrust of Davidson's reply is that there is a distinction between events and events under a description, or in other words, between causation and causal explanation. According to Davidson, epiphenomenalist objections are misguided since causation is a relationship

between events no matter how those events are described ("Thinking Causes" 6). A linguistic function like causal explanation necessarily requires intensional concepts that possibly fail co-extensional substitution tests. "Cause," on the other hand, is a completely extensional term.

Davidson's critics claim that according to Anomalous Monism, mental properties are causally impotent. However, for Davidson, properties are not ontological constituents of events. Since events themselves stand in causal relations, causality holds between events no matter how those events are described. So if the first of a series of events is described in mental vocabulary, it will still stand in the same causal relation to the following events despite the fact that that event can also be described physically (geologically, biologically, chemically, etc.). For example, suppose that a thunderstorm is the cause of a power outage. If that thunderstorm is a cover story for the *New York Times* and the power outage is a story on page six of the same newspaper, we would not say that the cover story of the *New York Times* causally explains the story on page six. We would expect a causal explanation formulated in a physical vocabulary and not the vocabulary of newspaper pages. Yet no matter how the two events are described, it is still true, according to Davidson, that *the event* described on the cover of the *Times* caused *the event* reported on page six ("Thinking Causes" 13). Thus, "it makes no literal sense" to claim that the mental is causally inert since cause and effect hold only between events and not in virtue of the properties (or descriptions) of those events ("Thinking Causes" 13).

In his essay "Can Supervenience and 'Non-Strict Laws' Save Anomalous Monism?" Jaegwon Kim accepts Davidson's notion of causality only to push the question further: given Anomalous Monism's distinction between causality and causal explanation, it seems that the mental cannot causally explain physical events. The issue, holds Kim, is and "has always been the causal efficacy of properties of events" ("Can Supervenience" 224). In essence, Kim challenges Anomalous Monism to meet the demands of causal explanation beyond a simple metaphysical causal relation. Causal explanation asks, *in virtue of what* did this event cause another one? Kim indicates that Davidson is denying the mental any role in explanation, i.e., it is not in virtue of its having a certain mental property that an event causes anything. For example, if mental event m_1 is identical to physical event p_1 (they are tokens of the same event e_1) and p_1 causes p_2, then m_1 causes p_2, but the mental event m_1 (that is, the mental description of event e_1) cannot offer a causal explanation of p_2. In other words, if there is a set of properties (say, mental properties) that has no role in causally explaining events vis-à-vis another set of properties (say, physical properties), then the former set of properties is inert with respect to the latter set of properties and is therefore epiphenomenal ("Can Supervenience" 21–22).

Davidson has two possible avenues of response in maintaining the explanatory potency of the mental: supervenience and the affirmation of non-strict laws. To hold that the mental is supervenient on the physical is to say that if there is a mental difference in an event, then there will also be a physical difference, and in turn a difference in the causal relations that the event enters into insofar as it is these physical aspects of the event that causal relations depend on. Davidson argues that since a mental difference in the event changes the relations it enters into, the mental has a role to play in the causal explanation of the event in question.

However, according to Kim, this appeal to supervenience only guarantees the "causal relevance" of mental properties and not their "causal efficacy" ("Can Supervenience" 23–24). Mental properties are "relevant" to causal explanations since what mental properties an event has affects what physical properties an event has, and it is the physical properties of events that causally explain other events. However, it does not follow that the mental properties of an event causally explain the physical events that are its effects ("Can Supervenience" 21–22). By way of analogy, in the case of a babbling brook, the rushing water causes both the sound and the erosion of the bank. While the sound clearly does not cause the erosion of the bank, it is causally relevant because if there is a difference in sound (e.g., no sound) then there is a difference in bank erosion (e.g., no erosion) but only because the water is not rushing. In this way, the sound is causally relevant to, though not causally efficacious for, the erosion of the bank.

Davidson's other defensive option is the denial of strict psychophysical laws and the affirmation of non-strict or less strict psychophysical laws. For Davidson, strict laws are most likely to be found in a more fully developed physics; they are generalizations that are as exceptionless and deterministic as nature allows and free from *ceteris paribus* clauses ("Thinking Causes" 8). For Davidson, strict laws always underwrite singular causal relations. Yet these types of strict laws are rare, and in fact, a great deal of our practical scientific knowledge is non-strict ("Thinking Causes" 9). However, given reasonable assumptions, these examples of scientific inquiry may prove to be completely reducible in a more fully developed physics. The mental, on the other hand, can be understood and predicted only in light of other mental events. This is because the mental is holistic and guided by an a priori constitutive principle of rationality, unlike the physical realm, which requires no such rational guiding principle. Thus the realm of the mental, like geology, is connected with the realm of the physical through non-strict laws. Unlike geology, however, the mental cannot in principle be reduced to strict laws ("Thinking Causes" 9). Yet if all that is required for causal explanation is non-strict laws, which seems to be the case if the aforementioned practical sciences offer causal explanations, then the mental is explanatorily potent.

Kim, however, warns advocates of Anomalous Monism not to embrace the notion of non-strict psychophysical laws. Kim holds that a non-strict law is actually a strict law with some of its antecedent conditions existentially quantified: a strict law's antecedent conditions would all be necessary, while a non-strict law would be hedged by escape or *ceteris paribus* clauses ("Can Supervenience" 24). This means that "where there is a non-strict psycho-physical law, there must be a strict psycho-physical law waiting to be discovered" ("Can Supervenience" 24). This is problematic for Davidson's account, since if non-strict laws connect the mental and the physical, then there are some yet-to-be-discovered strict psychophysical laws, exactly what Anomalous Monism denies ("Can Supervenience" 24). However, Kim seems to assume that irreducible heteronomic non-strict laws are impossible. But it seems possible that some special science laws are in principle irreducible to a fully developed physics. Thus a great deal of the strength and plausibility of Anomalous Monism rests on the legitimacy of the notion of irreducible non-strict law. However, as we will see by investigating the concept of law more generally, the notion of a *sui generis* non-strict law is strikingly similar to the concept of an accidental relation.

Part IV: Laws and Generalizations

Laws are used "to explain both other ('less basic') laws and particular events. . ., to deduce what will happen (predict) and what would have happened had (counter-factually) circumstances been different, to separate complex causes into their components and to distinguish between accidental and law-based empirical regularities, to decide when experimental and inductive inference procedures are justified. . ., to decide what basic properties there are, and so on" (Hooker 472). Laws perform a variety of functions, and when assigning the label of "law" to relations between events and sets of events, it is important to have as precise an understanding as possible of its meaning. Davidson makes a series of distinctions between laws and generalizations in order to deal with the aforementioned problems with supervenience.

According to Davidson, a statement is deemed lawlike if it is supported by its positive instances and if it supports counterfactual and subjunctive claims ("Mental Events" 217). By the Nomological Character of Causality—events related by cause and effect are covered by strict laws—a strict lawlike relation is any relation between two events such that the the description of the first event and conditions is sufficient for the occurrence of the description of the second event. Strict laws may take the form "(C_1 & D_1)$\rightarrow D_2$" where C_1 is the description of the conditions and D_1 and D_2 are the descriptions of the events respectively. A statement is deemed strict

and lawlike if one can list all of the defeaters, i.e., all the factors and conditions that would prevent the consequent from occurring. In this "preventing" or "negative" articulation, the form of the law is: if *A*, *B*, and C occur, then *D* will not occur. This need not be equivalent to the "guaranteeing" or "positive" formulation: if *A*, *B*, or C do not occur, then *D* will occur. These articulations are equivalent only in a deterministic world. The preventive articulation is as strict a notion of law as an indeterministic world will allow. For Davidson, the advantage of the preventing articulation is its unique ability to work in an indeterministic or probabilistic world. Thus, we can have strict deterministic as well as strict indeterministic laws.

A strict law will be as explicit and exceptionless as possible or can be refined to be so "by adding provisos and conditions stated in the same general vocabulary as the original generalization" ("Mental Events" 219–22). One example of a strict law would be "falling objects accelerate at 9.8m/sec². There are innumerable positive instances that support this claim. Similarly, this law also supports counterfactual and subjunctive claims: "if I were to drop my tray in the dining hall, it would accelerate at 9.8m/sec²," whether or not I actually drop my tray. Strictly speaking, this law should be refined through the addition of the proviso, "*X* falls into a vacuum" to become completely exceptionless, all while staying in the same physical vocabulary. Our subjunctive claim then changes to "if I drop my tray in the dining hall into a vacuum, it will accelerate at 9.8m/sec²." Thus, Davidson's notion of strict law is actually quite strict: strict laws must relate events uniformly in the vocabulary of a closed system and be ruled lawlike a priori. Here, a theory is closed and comprehensive only if the events within its domain causally interact exclusively with other events in the same domain. Therefore, since the only laws that seem to meet these qualifications are physical ones, strict laws must be physical laws.

Non-strict laws, on the other hand, are not couched in the vocabulary of a closed comprehensive system. They most often relate events in two disparate vocabularies. However, while all heteronomic laws are non-strict, not all non-strict laws are heteronomic. Regardless, for a non-strict law to become as exceptionless and precise as possible, it must include "escape clauses," e.g., "*ceteris paribus*" provisos or "typically" qualifiers ("Mental Events" 219). Because these escape clauses cannot be exhaustively specified or reduced, non-strict laws cannot be more fully specified or made strict due to the nature of the phenomena in question. In addition, non-strict laws may implement probabilities to account for exceptions. It is important to note, however, that if a probabilistic law is genuinely perfectly strict, this means that there could not be another law covering the same relations that is more precise or more exceptionless. For example, "there is a fifty percent chance of getting heads when an unbiased quarter is flipped."

Non-strict laws cover singular (often causal) claims between individual events. Upon further examination, our previous strict law example, "falling objects accelerate at 9.8m/sec²" can be further refined by the addition of a *ceteris paribus* clause: "*ceteris paribus*, falling objects accelerate at 9.8m/sec²." The *ceteris paribus* clause covers couched hedgings, e.g., the law applies only in a vacuum or with no air resistance. If the object accelerates at a rate slower than 9.8m/sec², it is not an issue with the law, rather it is due to some condition being unsatisfied.

For Davidson, non-strict laws fit between accidental relations and strict laws. Non-strict laws rely on the fact that the mental marches to the beat of a different drum than the physical, so to speak. The mental and the physical differ in their constitutive principles: normative, rational relations for the former and factual, non-rational relations for the latter. Non-strict laws are crucial for Davidson's project, and as such he must distinguish them as clearly as possible from accidental relations and strict laws to maintain physicalism while holding the mental to be anomalous.

As mentioned above, beyond the strict/non-strict division, Davidson makes a further distinction: homonomic versus heteronomic generalizations. Generalizations are the nascent stages of laws, i.e., they point to some underlying, possibly causal, connection. Homonomic generalizations 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 generalization" ("Mental Events" 219). Homonomic generalizations have the form of and use the vocabulary of a strict law. Heteronomic generalizations are generalizations "which when instantiated may give us reason to believe there is a precise law at work, but one that can be stated *only by shifting to a different vocabulary*" ("Mental Events" 219, emphasis added). By definition, heteronomic generalizations and laws operate within disparate conceptual domains and so cannot be strict.

Davidson holds that psychophysical laws can be heteronomic only insofar as they make use of two differing vocabularies. For example, "if I believe that it is raining today, I will open my umbrella" makes use of a propositional attitude—"I believe"—and a physical descriptor—"I will open my umbrella." If heteronomic generalizations give us reason to believe that there is a more exceptionless law at work, but that the law can be articulated only by switching to a different vocabulary, then it seems that heteronomic generalizations by definition cannot be or be refined into strict laws. Strict laws are homonomic since they necessarily relate events within the same conceptual domain and within the same vocabulary. Thus, because particular mental events causally interact with particular physical events, we have good reason to believe, by the nomological character of causality,

that there is a causal law at work. However, this law must be articulated in two disparate vocabularies, that is, it must be a non-strict law. In sum, psychophysical laws are non-strict by definition.

Further support for the impossibility of strict psychophysical laws is found in the fact that mental predicates supervene on a vast, heterogeneous, and uncircumscribable set of physical predicates. For example, "wanting a beer" may correlate with "walking to the fridge," or "walking to Rabbits," or "pushing someone out of the way to get the last can in the cooler," or "grabbing a canned beer," and there is no way of specifying in advance all of the *ceteris paribus* conditions that have to be built into each of these correlations. This lack of ultimate specificity, which is characteristic of non-strict laws, can never be fully eliminated even in the sense of applying all of the defeaters in the preventing articulation. The list of defeaters would constantly be appended because it would simply be another way of trying to fill out all of the conditions in the *ceteris paribus* clause. This supervenience of the mental on the vast tapestry of the physical also highlights the weakness of a weak supervenience.

Some philosophers, such as Jaegwon Kim and Jerry Fodor, believe that non-strict laws can be reduced to strict laws. In other words, non-strict laws are really just immature strict laws, which they will become after enough data is gathered. In response, Davidson argues that strict laws do not underwrite the non-strict laws linking mental-physical events. Non-strict psychophysical laws are not simply hidden strict laws—they are valid and independent lawlike relations. Davidson holds that with respect to these laws one cannot exhaustively specify all the conditions in advance. The presence of the *ceteris paribus* clause highlights the fact that non-strict laws are not exceptionless and cannot be made perfectly strict.

The holistic nature of mental states, which give rise to behavior, supports Davidson's position. It is not just that one desire is correlated with an array of different behaviors, but also that any given behavior to which the desire connects is similarly complex. For example, the desire to have a beer may be specifically connected to the behavior of pushing someone out of the way and grabbing a canned PBR brand beer from the cooler, among many other possible behavior correlates. Furthermore, this behavior is correlated with an array of different mental belief content. The behavior in the example could be connected to the belief that bad manners do not matter or that displaying assertion is more important than not angering the person you push out of the way. Any link to behavior is embroiled with many other networks of desires and beliefs that are in holistic relation to the original insofar as they give rise to particular behavior. Furthermore, one cannot specify all of the behavior that any one desire gives rise to or all of the mental beliefs and desires that line up with some particular behavior.

Given these factors, non-strict laws seem to no longer be lawlike relations at all. In fact, it seems that any piece of desire or belief content could correlate with any piece of physical behavior, given the right conditions; and non-strict laws start to look like accidental or co-accidental relations. For example, either the behavior of remaining on the couch or its negation, not remaining on the couch, could be correlated with wanting a beer given the thought that there is no beer in the fridge or given the thought that there is beer in the fridge, respectively. Thus, Davidson must offer a clearer notion of non-strict laws in order to show how the mental is dependent on the physical.

Part V: Fodor and Kim on *Ceteris Paribus* Laws

Davidson must offer a stronger account of irreducible non-strict laws. However, Jerry Fodor complicates this project. Fodor holds that if one variety of *ceteris paribus* law is reducible to strict law, then all *ceteris paribus* laws are reducible and vice-versa. Fodor argues convincingly for this account of *ceteris paribus* laws, and his arguments force Davidson to more fully unpack his own nuanced conceptual position. The question is, if non-strict laws are different from accidental relations (as they must be), then are they not simply underwritten by strict laws? If so, then we should expect (say, when neuroscience progresses) to find some strict laws forming the base of non-strict mental-physical laws, contra Anomalous Monism. And this is Fodor's point: the alleged non-strictness of psychophysical laws is no different from the non-strictness of other special scientific laws, and thus are ultimately underwritten by strict physical laws.

In his essay on hedged laws and psychological explanation, "You Can Fool Some of the People All of the Time, Everything Else Being Equal: Hedged Laws and Psychological Explanations," Jerry Fodor works to disprove a position taken up by Stephen Schiffer, who argues that the truth conditions for *ceteris paribus* laws are not satisfied in the case of psychology because of the multiple realizability of psychological states; therefore, there are no *ceteris paribus* laws in psychology.

Fodor argues that there is good reason to believe that *ceteris paribus* psychological laws have genuine truth conditions and that they are no different in kind to those found in other special sciences like meteorology, geology, and biology. For example, there is no difference in kind between the laws, "*ceteris paribus*, everyone who wants a beer will drink a beer," and "*ceteris paribus*, every river that meanders will erode its banks." These laws differ only in degree: not as many of the *ceteris paribus* conditions and provisos that are needed to establish determinate truth conditions for the psychological have been articulated as they have been for the geological

law. Because *ceteris paribus* laws in other special sciences offer perfectly good causal explanations, so too can psychological laws, but only if they are ultimately reducible in the same way.

In order to protect Anomalous Monism against critics like Kim and Fodor, Davidson needs to show that irreducible non-strict laws can provide legitimate causal explanation and that they are different in kind from *ceteris paribus* special scientific laws. One way in which he could do so is by employing Fodor's defense of the legitimacy of *ceteris paribus* laws as an initial response to restore causal efficacy to Anomalous Monism. According to Kim in "Causation and Mental Causation," Fodor holds that "the first—and crucial—step in getting what a robust construal of the causal responsibility of mental requires is to square the idea that Ms [mental events of kind M] are nomologically sufficient for Bs [bodily events of kind B] with the fact that psychological laws are hedged. . . [If] it's a law that M→B *ceteris paribus*, then it follows that you get Bs whenever you get Ms *and* the *ceteris paribus* conditions are satisfied" ("Causation" 5). According to Fodor, this shows that *ceteris paribus* laws can be causally explanatory since it "captures the difference between the (substantive) claim that Fs cause Gs *ceteris paribus* and the (empty) claim that Fs cause Gs except when they don't" ("Causation" 5).

Kim explains that "the heart of Fodor's strategy, then, appears to be the thought that whenever we have a serious *ceteris paribus* law, 'Ms cause (or are followed by) Bs, *ceteris paribus*', there is a set C of conditions (as yet not fully specifiable) such that 'Whenever C obtains, Ms cause (or are followed by) Bs is a strict, exceptionless law'" ("Causation" 5). Kim highlights the important distinction, which Fodor blurs, between nomological sufficiency and causality. In sum, Fodor's "solution to Davidson's epiphenomenalism problem. . . consists in interpreting '*ceteris paribus*' nomic regularities so that they will yield causation. Fodor's suggestion, then, is that *ceteris paribus* regularities can ground *ceteris paribus* causal claims, and that whenever the unspecified, and unknown, set of additional set of conditions C is satisfied, we have causation *tout court*" ("Causation" 6). Kim notes that it is "a bit of a mystery how we can ever know these 'unknown' conditions are satisfied and hence how we can know a causal relation exists in a given situation" ("Causation" 6). The key cost of this answer to the charge of epiphenomenalism is that it risks incompatibility with anomalism of the mental.

Fodor's position on hedged laws has some serious implications for Davidson's Anomalous Monism. In response to Fodor on *ceteris paribus* laws, Davidson must defend irreducible non-strict psychological laws. Anomalous Monism holds that there can be no strict psychophysical laws and that the mental and the physical are held in relation by non-strict hedged laws that are irreducible to physics or to a more basic closed theory. Thus, to

defend the consistency and strength of Anomalous Monism, Davidson needs heteronomic *ceteris paribus* laws to be distinguished into two categories: those that are possibly reducible to a comprehensive closed theory (such as physics) and those that are irreducible in principle. That is, it seems that most special sciences could be reduced completely to a future language of ideal physics. For example, it is reasonable to assume that weather patterns could be translated into the language of atomic and subatomic movements (as tedious or unrealistic as this may be). Fodor holds that psychology is like the other special sciences and could, in theory, eventually be reduced to the language of a more completed physics.

Because using Fodor's account of *ceteris paribus* laws as a way to answer the charge of epiphenomenalism conflicts with anomalism of the mental, Davidson must reject it. And in order to reject it, he needs to argue that the *ceteris paribus* laws of psychology and the *ceteris paribus* laws of other special sciences are different in kind. He has two resources for doing so, which are, unsurprisingly, the two elements that in his view are responsible for the original anomalism of the mental: the holism of the mental and the constitutive ideal of rationality. The holism of mental is the thesis that a mental state can be identified only in terms of its relation to other mental states; thus, mental states cannot offer sound generalizations as they always make appeals to other mental states. However, Fodor blocks this path of defense by showing that all special sciences operate within their respective network of laws. For example, we can understand geological states only by reference to other geological states; the eroding of a rock formation makes appeal to the substance doing the eroding—rain water—and further appeal to the composition of the formation itself—granite.

The other defensive option for Davidson is the constitutive ideal of rationality: in order to ascribe a propositional attitude to another person, the ascribed mental states must make rational sense in relation to the person's other mental states. For example, if we are to ascribe the desire of wanting peanut butter to Fred, we must also hold that Fred believes himself to not be allergic to peanuts, to not have eaten recently, to not have taken recreational drugs that induce "wanting peanut butter" delusions, etc. The same does not hold for the realm of the physical: we do not rationally assign beliefs and desires to rocks to account for their behavior. Thus, to some degree the constitutive principle of rationality shows that psychology is in principle different from geology and other special sciences. Nonetheless a problem emerges: if psychological laws are *sui generis* in their non-strictness (i.e., different from the non-strictness of special scientific laws), then psychological laws are not like special science laws, so we cannot understand them, or their causal explanatory power, on the model of the special sciences. Clearly, the specter of epiphenomenalism is still present.

Part VI: Conclusions

Despite these challenges, all is not lost for Anomalous Monism and the explanatory power of psychological propositions if we understand Anomalous Monism as a thesis concerning the mental's power to rationally explain rather than to causally explain. That is to say, mental propositions offer unique and at times more appropriate explanations of events, explanations that, while not causal, are often more clear and efficient than physical explanations. Take, for instance, Hilary Putnam's example: to explain to the board of trustees why he was in a student's room after midnight, a professor has two options (42). The professor could give an entirely physical account: his composite mass and inertia at 11:59 PM was such that he would have had to travel faster than the speed of light to avoid being in the student's dorm room after midnight, and since nothing can travel faster than the speed of light, the professor could not have possibly avoided being in the student's room after midnight. However, the board of trustees might find this explanation lacking. Instead, the board would want to hear a rational explanation to justify the professor's inappropriate actions: the professor *desired* to drop off an assignment to a sick student and *wanted* to be certain that she got it. In these types of cases, mental propositions and vocabulary offer a genuine rational, not causal explanation of the events.

Thus, while Davidson cannot hold that the mental offers causal explanation, he can defend the mental domain as irreducible since mental vocabulary have unique constitutive principles and are important (and arguably necessary) in understanding human actions. This broader understanding of explanation makes rational sense of human behavior as opposed to simply predicting it. It takes into account those qualities like intentionality, autonomy, and rationality, which are essential to human behavior. Given this, mental states have an incredibly rich and useful explanatory role to play that is just as important as causal explanation.

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