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Brian Ray  
*University of Georgia*

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## The Phylogenetic Spectrum: Why Paramecia Matter to Daniel Dennett and Jerry Fodor

**Brian Ray**  
*University of Georgia*

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Jerry Fodor begins his article “Why Paramecia Don’t Have Mental Representations” with a discussion of how we can go about distinguishing the behavior of simple organisms with that of more complicated ones. In this manifests a logistical problem. How do we determine this difference? Fodor writes:

One might suppose, in particular, that the bag of tricks associated with the Representational Theory of Mind [hereafter referred to as RTM] ought properly to be reserved for application to animals pretty much like us. It would, for example, be preposterous to attribute mental representations to paramecia; where would they keep them? Yet paramecia are negatively phototropic, and tropisms are arguably behaviors in good standing. So, if our behaviors are to be explained by appeal to mental states, *why shouldn’t theirs be?* [Emphasis in original]. (3)

Fodor does not arbitrarily raise this issue. It is a response to Daniel Dennett, who criticizes Fodor in that he “assumes there is a clear line between computational processes and other processes, and another between considered action and mere reactivity.” He goes on to ask: “[H]ow plausible is it that a mole or a chicken or a fish is capable of representing behavioral options of unbounded complexity?” (98). Fodor characterizes Dennett’s claim as an accusation of a slippery slope, the impetus for a hard distinction on Fodor’s behalf.

To preserve the integrity of representation *without extending it to all things that behave*, Fodor proffers an element unique to some creatures on our side of the phylogenetic spectrum, which he dubs “property P.” This property “is in virtue of our possession of which we are plausible candidates for intentional ascription.”

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Specifically, “the difference between paramecia and us is that we can ‘respond selectively’ to nonnomic stimulus properties and they can’t” (11). Fodor posits that what makes this model work is semantic causation; he provides this semantic schema of attitudinal ascription of content as a means of delineating “us” from “them” in a sense. I agree inasmuch that we have representation while paramecia do not, and I am also sympathetic to the notion that a language of thought is the vehicle of behavior’s etiology in complex organisms, but I fear that the rigid nomic/nonnomic dichotomy Fodor utilizes to distinguish paramecia and people opens up RTM and all of intentional psychology to an amalgam of new criticisms, such as those raised by interactionist Rodney Brooks.

Before I lay out my thesis entirely, we must really understand the nomic/nonnomic dualism Fodor advocates. The “Property P” I referred to earlier arises in what Fodor calls a “primal scene,” which is any instance in which:

- (3a) An organism *A* sees something *S*.
- (3b) *S* has some property *O*, such that:
- (3c) *A*’s behavior comes to exhibit some property *C* in consequence of (3a) and (3b). (6).

In these primal scenes, we can distinguish the etiological patterns of simple creatures such as moles and paramecia from those of more complex animals such as ourselves. Fodor characterizes intentionality as the ability to respond selectively to “nonnomic” properties, which are not bound by physical laws, as nomic properties are. For instance, paramecia move in response to light—this is a primal scene in which the physical influences behavior rather than something more abstract. So, in his view, Property P is this selective response to nonnomic properties, and paramecia lack this. They respond tropically to mere nomic, physical stimuli. They have no choice. They are not selective in these scenes, thus they are not intentional creatures. In such a framework, nonnomic properties are, indeed, lawful, but in a different manner.

Fodor repeatedly utilizes the example of a crumpled shirt *qua* crumpled shirt to illustrate the nomic/nonnomic dualism. The former is presented as the manner in which a shirt reflects light, while the latter is the recognition of shirt *qua* shirt, a “selective” response to a sum of physical properties of some material. This view dictates that nomic properties are bound by a unilateral physicalism while certain subjects can somehow “selectively respond” to nonnomic properties such as “shirt-edness,” which, in this case, is semantic value of the signifier “shirt.” If one can “selectively” like or dislike, be confused by the shirt’s pattern, enjoy its texture but dislike the fit, etc. , from where do these attitudes originate? Fodor hints at the formation of such attitudes, but only marginally as his main priority is explicating the manner by which semantics are causative:

The detection of these psychophysical properties must eventuate in *A*'s coming to represent *S* as being *O*. The process is, in effect, the 'perceptual inference' of classical intentional psychology. Presumably such inferences exploit information from memory as well as information about the detected psychophysical properties of *S*; in the typical (though by no means exclusive) case, this would be information to the effect that the psychophysical properties cohabit with property *O*, so that the detection of the former provides a reliable index of the presence of the latter. (14)

"Presumably such inferences exploit information from memory." So, both the distal object at hand *in combination* with memory, or the intentional subject's past instantiates the semantic link so important to Fodor's thesis. But the causative power of such a semantic model is hindered as some systematicity driving the semantics is largely ignored. Cause and effect are difficult to imagine sans law, sans systematicity. This is why the nomic/nonnomic divide is not a sufficient taxonomy. I believe that there *is* an arena from which laws originate and *do* dictate what Fodor calls the nonnomic—in my view these properties are subject to acculturated laws within the social arena, society. These laws<sup>1</sup> are derivative and relationally meaningful within a system, which is the social arena. This social field is analogous to the physical laws from which concepts as gravity originate but it is unique to the reality of humans and other social creatures. The rather simplistic distinction of "nomic" and "nonnomic" is insufficient in this sense. It would serve Fodor's argument that we are different from paramecia in virtue of representations a bit more effectively if instead of a bifurcated framework that distinguishes based on either the presence or absence of laws, we embrace one that presents the nonnomic as performative and generative, rather than as a selective response. This nonnomic property, shirt-edness, is indeed, derivative of the social arena and "plays by the rules" in a sense such as that shirt *qua* shirt is not used as a sail, a dishcloth, or a hat without a noted incongruity, i.e. it is such as that the subject's own experience with shirt *qua* shirt, is so rather than a shirt *qua* dog or coffee mug.

I am proposing that if nonnomic properties are indeed derivative of the social arena, they cannot shed their heritage, their temporal and etymological residue, so to speak. In other words, there is a lawfulness, which is the unilateral force of social reality to which nonnomic properties are jurisdictionally subject. This begs further explanation, though. What would a "performative" and "generative" framework look like? What exactly does this mean, the social arena? And if a crumpled shirt is used as a sail rather than worn or ironed, what is it incongruent with? Also, if it is *possible* to use a shirt as a kettle cozy, however "incongruent," then how is shirt *qua* shirt a law-like property? How does the social arena generate both congruity and incongruity while maintaining lawfulness at all? The next part of this discussion will answer some of these questions and raise others.

## Judith Butler's Linguistically Vulnerable Subject and Jerry Fodor's Selectively Responsive Agent

Judith Butler (1997) draws extensively on Louis Althusser's concept of "interpellation," which renders a subject forever "linguistically vulnerable." Interpellation, as Butler interprets it, is an instance of a subject being born into existence in the socio-linguistic arena. It is the instance in which a linguistic being is instantiated—once a pre-linguistic figure, the subject now is granted ontological status within the socio-linguistic field. Butler writes: "The mark interpellation makes is not descriptive, but inaugurative. It seeks to introduce a reality rather than report on an existing one; it accomplishes this introduction through a citation of existing convention" (33). So, a linguistic vulnerability, so to speak, befalls the subject because she is generated in specific nomenclatures and altered through citations of the past; a subject is thus contingent upon language, linguistic alterations, and the historicity of her semantic residue by which she identifies. This is an organic element of the citational act of inauguration and reiteration within the social field to gain and maintain a subjecthood within the socio-linguistic field. This is not only applicable to people, but objects. A bundle of fashioned fabric is shirt *qua, per interpellation*. It now has a social and linguistic meaning, and we, as interpellated subjects ourselves, can interact with these linguistically endowed properties, these *nonnomic* features. This ability to interact with these types of laws is our performative power. Because of these things outlined, the social field is a performative enterprise. Performativity, simply put, is the ability and practice of altering semantic meaning, instantiating linguistic entities, and altering pre-existing entities. Because subjects are linguistically vulnerable, dependent upon their endowed linguistic positionality, their performative power is one in the same with this ontological status of their interpellation.

A newly interpellated subject (nonnomic: is a nun or a student), who is circumscribed upon the physical subject (nomic: is flesh and bone, has the capacity of digestion, is subject to gravity), often stands in bold relief against its "natural" pre-linguistic self because we are social animals, e.g. we perceive "nun" before we consider the physical entity that "nun" is superimposed upon. Hence the status of concepts, subjects, and objects' semantic values is much more important to humans than mere physicality though such "nomic" properties are obviously indispensable, viz. though we may have a clear path at a stop sign, we take into consideration its social meaning and stop rather than forging ahead, even on deserted roads. The sign has a nonnomic value.

The importance of performative statuses lies in the fact that not every act of reference is interpellative, not all acts of reference are initiative but perhaps secondary and tertiary *ad nauseum*—they are often follow-ups on work previously exercised by performative agents. Subjects do not merely describe a nun as a nun or report an instance of a nun, but often alter and refer to her as "nun," citing the existing meaning and convention of nun-ness. This performative act of effecting nun-ness upon an individual in either the

initial interpellation or the follow-up references to the individual relies upon a previous definition of nun-ness. Thus, linguistic subjects act as a sort of socio-linguistic filter, citing and reiterating convention; while Butler may call this “citation” in the Derridean sense, Fodor offers a slightly different process and calls this “responding selectively.” But as we see with performative statements and acts, it is not so simply and the subject is not so autonomous. Therein lies Fodor’s error: intentionality and representation are merely subjective modes of address according to his account, but intentional ascription is not so nebulous and traditionally subjective. A redefinition of subjectivity/subjecthood is necessary to make sense of Fodor’s model.

Human subjects, as linguistically vulnerable and inaugurated, act as mere atomic filters of a larger socialize schema. They are infused with language. Thus, any “selective” response to any nonnomic property is inherently informed by a subject’s interpellation and socialization. These acts of citation, of “responding selectively,” acts such as inaugurating nun *qua* nun, are produced by a unilateral social force—the molecular filter that is society, composed of atomic linguistically endowed subjects. The social is the aggregate of subjecthood, in other words. This performative enterprise is necessarily systematic and law-like, as evidenced by the cogent social reality in which we all participate both actively and passively. Though this cannot be explicitly and precisely be represented with mathematics<sup>2</sup>, such as the physical laws, there is still an emergent pattern. Semantic agreement, though there may be variation within subjects spanning the social field, is still significant, pervasively influential in most human behavior because language is a constitutive element of our realities. So, it is law-like. Fodor’s claim that we merely respond selectively posits many questions that a performative approach does, indeed answer. Questions such as the following are raised by Fodor’s law/no law model: From where do nonnomic properties arise if they are only detected by creatures who have Property P and are not dictated by any nomic laws? How does one explain the evolution the evolution of lexicons if we do not understand nonnomic etiology?

So, we have established that language and representation are generative of “nonnomic properties” of the sort Fodor focuses upon, in a performative framework, but I have made less clear how this productive capacity of representation enables law-like properties. I emphasize the idea, originally offered by Butler, that subjects and concepts are linguistically vulnerable because vulnerability implies a form of subordination—it is a property that is malleable to the will of whatever force that governs it. So, as linguistically vulnerable subjects, people act according to laws toward “nonnomic” properties because these nonnomic properties do not arise *ex nihilo*, but instead through linguistic ascription at the hands of linguistically interpeallated subjects, whose original instantiations were also at the will of language. Thus, a subject’s brand of intentionality (the subject’s attitudinal dispositions) is not originated wholly within an individual subject, but cited within the social arena and slowly altered in virtue of her performative status—this alteration, though, must be understood inasmuch, merely an

alteration and not a negation of previous semantic meaning. Hence, a purely individual selectivity, one that is wholly independent *per* Fodor, is impossible. The Civil Rights movement in America is particularly illustrative of this idea. For instance, the movement could not banish socially constructed properties such as “deviance” and “inferiority” that were attributed to them. Though there was a redefinition of what it mean to be black (they began becoming full citizens), though a performative power stimulus of sorts occurred, “blackness” as a nonnomic property was an idea renovated, it was not an original and foundational signifier. “Blackness,” as socially constructed, is a victim of the historic etymology that shapes the vernacular, and is linguistically vulnerable. As such, the historicity in the word “blackness,” in combination with “psychophysical properties” (Fodor 14) both *force individuals to act and represent content accordingly, or congruently with social norms and cited convention*. A negation of historical “blackness” would imply creating the term anew from a lacuna within the social field where “blackness” used to exist, but such an erasure of history and memory is impossible in language. A word will forever be “alloyed,” in a sense, haunted by its own etymological history despite the contemporary linguistic subject at hand, the performative agent. Therefore, language and the nonnomic properties produced are socially cohesive and systematic—lawful.

## Conclusion

I have tried to hash out the issues that arise in the face of RTM and Fodor’s Property P. I would like to offer my own Property P to differentiate nomic and nonnomic properties, to distinguish “us” from “them” so to speak. So, I disagree and agree with Fodor when he says, “All and only nomic properties enter into lawful relations; and since not all properties enter into lawful relations, *not all properties are nomic* [Emphasis in original]” (10). I disagree in that *all properties do enter into lawful relations*, as they can be physical (nomic) or linguistically endowed (nonnomic); I agree in that all properties are not nomic, as the nonnomic does exist, but my definition of nonnomic differs from Fodor’s. I define Property P, within this performative framework I have proposed, to be the ability to respond to nonphysical properties, which are endowed by the subject’s and objects’ interpellated statuses. Furthermore, because interpellation is a continuous and citational process, and interpellated subjects merely act as semantic facilitators within a socially cogent reality, the creation of and response to nonnomic properties is, indeed, a law-like behavioral enterprise. The performative framework frees us from the slippery slope, as performative power can only be held by linguistic subjects. Our property P in this instance serves the same function as Fodor’s, as it serves as a clear demarcation along the phylogenetic continuum, but it has a stronger case—it is generative, etiological, and relational. To borrow from Rodney Brooks, “the world is its own best model.” It just so happens that the world consists of socially constructed attributes, namely nonnomic properties *in addition* to physical “stuff.” So, indeed, this model, the world, is largely

representationally constituted. Representation is a completely indispensable and constitutive element of reality.

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<sup>1</sup> I use the term "law" rather liberally in reference to anything unilaterally forceful and not in the sense of an unexceptional phenomena such the gas laws or the law of the conservation of energy.

<sup>2</sup> Though one of the fastest growing areas of research within linguistics is the statistical study of contextual meanings of words: corpus text analysis. This further supports my thesis—cultural regulation is revealed through emergent statistical patterns in language use. I differentiate this from physical law, though, as it retains a degree of fluidity held by those who abide by it, which is a quirk of nonnomic properties.