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Vis-à-vis: Signification does not necessitate backward causation

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Abstract. The following paper examines the metaphysics of signification in John Deely's work and presents two arguments: (1) that Deely's metaphysics sanction backwards causation in signification, and (2) that there may be a more parsimonious view that can be defended. The paper briefly examines the background of Peirce's metaphysics and then addresses his specific notion of semiotic causality, including the relevance of the *vis a prospecto* in his work. I will argue, however, that in accounting for signification, appealing to past states changed by future states can only be done in a weak, epistemological manner, as opposed to what I see as a modal view in Deely. As Deely's metaphysics has profoundly influenced the philosophical discourse of current semiotics, it is important to assess the ontological commitments made in order for signification to take place. His account of semiotic causality as a teleological phenomenon may offer a powerful explanatory framework for how signification takes place (and with it, how signs come to be), but its consequences may result in counterintuitive ways of thinking about meaning-making. I offer a positive deflationary account of how to preserve a weaker sense of semiotic causality to avoid the risks posed by the *vis a prospecto* in Deely's proposal.

Keywords: John Deely; backward causation; deflationism; semiotic causality

Introduction

Vacuum cleaners have been around for, perhaps, a couple of hundred years at the time of this writing. It may be the case that a future reader (and this is in and of itself a dubious claim) will have a different number in mind, in the order of decades or perhaps even centuries. Have I just changed the future by guessing a potential reader has corrected my temporal statement above? Has the past been changed by this hypothetical (perhaps even actual) reader having to correct my

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statement about the longevity of vacuum cleaners? Moreover, though the fact is that a vacuum cleaner can be made of materials such as aluminium and plastic, has aluminium been reforged in history as a vacuum-cleaner-in-process kind of object? Has the past actually changed because our present is blooming with vacuum cleaners of all sorts? And if so, why is it the case that at the time of this writing I cannot name a single future object if this moment in time has already most likely been resignified by future post-roombas?

These may sound like trivial oversimplifications of a complicated metaphysical argument about how we can know about the past, and about the things that existed in the past. The questions posed, however, may be pertinent within the scope of the metaphysics of signification, particularly in the one developed by John Deely, and I think they reveal an interesting issue that emerges from some of the more unexpected appeals made by the arguments Deely raises, following Peirce. In this paper I will go through some of the main arguments put forward by Deely regarding the importance of different forms of causation for signification, and after reconstructing the arguments, I will argue that consequences such as backwards causation are too wide-reaching. Afterwards, I will simplify these assumptions and propose a more parsimonious set of requirements that point in the opposite direction in terms of necessities and causation for signification.

The following section will give a general overview of Deely's account of signification, particularly focusing on his metaphysical arguments.

1. A Deelyan account of signification

Deely's *Basics of Semiotics* (Deely 2009a) may sound like an *introduction* to semiotics, but it is, in fact, far from a textbook. Instead, its naming convention is a play of musement: it is only 'basics' because it refers to the radicals and basals of semiotic theory (and its philosophy). And as such, it is one of the few examples of a comprehensive metaphysical outlining of semiotic principles in a systematic, nuanced, and detailed manner. The unparalleled force of John Deely in the philosophical arena of semiotics is as inspiring as it is complex, and Deely's thought on the action of signs, profoundly influenced by the scholastics and the philosophy of Charles Peirce, requires a good deal of work before its implications are fully uncovered.

One of the main areas we are concerned with in regard to Deely's semiotic theory here is the putative introduction of different kinds of causalities to expunge the possibility of signs as a mere methodological instrument. In order better to understand both Deely's claim that semiotic causality involves a non-normal temporal dimension, and my claim that such a dimension is not relevant

to a metaphysical account of meaning-making, let us first take a look at Deely's semiotic architectonic and then focus on the specifics of the causalities posited by Deely as necessary within this architectonic.

1.1. A simplified overview of Deely's metaphysical account of signification

Deely's account of signification starts, strikingly, on his conception of what semiotics does. From the outset, his view is not so much about signs, but about what signs do – the action of signs (Deely 2009: 26–27), following from Peirce's 1903 conception of the sciences. As such, Deely's view of signification is marked by Peirce's later ideas on how we acquire knowledge and the relative qualities of experience with regards to the world. Deely, much like Peirce, accepts the reality of mind-independent existence, while also allowing for the existence of mental representations. The latter, commonplace in philosophical talk, offer an insufficient picture of signification, as sign relations may take place without mental representations in Deely's interpretation of Peirce. To paint a clearer picture, we need to rely on a Peircean metaphysics of relations that allows sign relations in non-mental contexts, or what has been called the doctrine of *semiotic realism* (Favareau 2023: 24).

If Deely accepts Peirce's later ontological and phenomenological views, including the methodology the latter employs in the discovery of the categories and its consequences,[2] then the way signification works depends, in principle, on the fact that what exists, and whatever properties these existences may have, do so in non-mental relations. To understand better what this means, Deely (2009a: 30–31; my emphasis, C.J.R.H.) uses the example of a thermometer that is worth quoting extensively:

> The idea of surrounding temperature produced by the thermometer as sign represents [...] something that itself is neither the idea nor the thermometer, namely, the presumed condition of the environment indexically represented by the thermometer. The idea as a mental representation [...] belongs to the order of subjective existence and is the immediate object of the thermometer as sign. But, within that order, the idea also functions to found a relation to something other than itself, namely, a condition of the environment surrounding the thermometer, which condition is both objective (known) and physical (something existent

[2] We have good reason to believe he does: Deely (2016a) engages in a profound reexamination of medieval philosophy *qua* cenoscopy – the Peircean variety of phenomenology that observes the given experience (as opposed to ideoscopy or the discovery of new, non-given phenomena) (CP 8.199) – that is, Deely is committed to the kinds of discoveries we can make about the world and experience through the Peircean method.

> besides being known), presuming the thermometer accurate; or merely objective but deviant from the physical situation rather than coincident with it, presuming the thermometer defective. As founding this relation, in every case objective, in some cases coincidentally physical as well, the idea itself produced by the thermometer has in turn produced "the proper significate outcome" of the thermometer as sign. This Peirce calls the interpretant [...], the key to understanding *the action of signs as a process, a form of becoming, as well as a kind of being, over and above the unique essential structure that makes signification possible in the first place.*

There is a number of features that make signification possible here for Deely. To begin with, Peirce's later categories represent the background against which such a view of signification is developed. Though Peirce's later categories can be seen as *modes of being* (Colapietro 2008), they also involve the qualities of what can exist in experience – the *modes of becoming* in Deely.[3] For something to come into our knowledge, it needs to contain its own set of properties – including sensory ones, but this, in essence, is insufficient, because our knowledge of things is, in Deely and Peirce, mediated and represented.

Secondness in Deely refers to the interactions that exist among existing physical things. In Peirce, we see secondness as an "irrational compulsion" (CP 7.647) – irrationality used here most likely as *not related to reason*, and we need to square the phenomenological account of Peirce, as, for instance, in "the experience of effort" (CP 8.330) with its ontological consequences, which seem to take precedence in Deely's description. Deely (2009a: 34, 2016a: 312) takes secondness more exactly as "the realm of physical interactions".

Earlier, in his account of Peirce's programme, "The grand vision", Deely (1994: 371) proposes that Peirce's groundbreaking achievement is realizing that what matters in a semiotic view is the *action* entailed by signs, not the signs themselves; and makes a terminological distinction regarding 'brute secondness' (Deely 1994: 372), the chance (physical) interactions that take place in the world (Deely 1994: 380). The semiotic account of Peirce here sees secondness as a more complex phenomenon *because* it sees secondness in conjunction with firstness and thirdness, presumably because of the synechistic nature of Peirce's work, which will also play out in our account of causality in Deely.

In synthesizing Peirce's categorial methodology, Deely develops an account of signification where, starting from the sign, we can say that what *becomes* something has certain properties, both individually and in interaction with other things. The phenomenological account of the sign, as it were, reaffirms

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[3] This is one of the essential features that needs to be taken into account in order to understand how Deely attacks the issue of potentialities across time.

the ontological commitments in Deely. What exists contains properties, but for these properties to be expressed, they need to be related to the properties of other things. And yet, these properties only become actualized in *thirdness*. Things do *become* other things to us (for instance, an apple *becomes* an apple in our world of cognition when we enter into a relation with it), and this is the key to the metaphysics of signification in Deely. In the same way, a vacuum cleaner *becomes* a vacuum cleaner given its properties, its relation to the world, and the way that relation plays out in our cognitive apparatus.

There are important consequences to this view in terms of how the sign relation is implemented and the sort of things we can know about the world. One of these consequences has to do with the *potential* to signify: the properties of things in the world bring into being things that we do not even know of right now, reflecting a kind of truth about the world that we may not be aware of. These properties exist in a mind-independent way, and they may eventually become realized. And there are all sorts of things we can know about in the world, including, for instance, dinosaurs. The most important consequence we are dealing with here is the temporal claims that emerge from this account of signification. These claims are coupled with Deely's notion of semiotic causality, which is explored in what follows.

1.2. Causalities in Deely's metaphysics of semiotics

Generally speaking, Deely's view on (semiotic) causality stems from his synthesis of Poinsot and Peirce. In "The grand vision", Deely (1994: 371) sees Peirce as "the first clearly to perceive that the proper subject matter for [semiotic] inquiry is not so much the being of signs as it is the action such being gives rise to and depends upon for its sustenance throughout", which, as was shown earlier, implies that semiotics does not care so much about the existence of signs, but rather about what signs make happen. Following this line, Deely distinguishes between two types of causality, the physical and the semiotic, within an increasing magnitude of complexity in the line of the late categories, from firstness to secondness to thirdness (with physical causality being in secondness and semiotic causality in thirdness). This idea follows suit from the commitments Deely makes to the Peircean architectonic. Because of the way Deely defines semiotic causality within the realm of signification, his account also inherits many of the metaphysical problems we encounter in the philosophy of mind, particularly when referring to mental or downward causation.[4] While Deely's terminology could be a potentially

[4] 'Downward causation' usually refers to the idea that higher level properties cause lower level properties (Kim 2010: 28), as for instance having a thought about turning my vacuum

fruitful way to redefine the problem of downwards causation, its scope is not limited to this. In fact, the notion of semiotic causation extends much farther.

A physical cause is one of *brute secondness* (Deely 1994), that is, one where physical properties *interact* without any form of reason, or irrationally. Semiotic causality, on the other hand, is taken by Deely (2008: 471, original emphasis) as a combination of

> […] the Scholastic division between final causality, whether intrinsic (teleonomy) or extrinsic (such as the purposive behavior of organisms), and *formal causality* as *extrinsic to a subject*, that is, to say "objective", whether actual or only virtually.

That is, semiotic causality in Deely refers to the "distinctive function of making present what it itself is not" (Deely 2009a: 115).[5] This explains, for instance, the fact that we can derive from smoke the fact of fire, or from a dinosaur bone the existence of a dinosaur.

What makes sign causality possible here is the fact that it is the world that tends towards something, because of *thirdness* – it is not the mind that reaches this something, but rather, the ideas themselves, so to speak. Despite the teleological nature of this presentation, Deely (2001: 27) sees thirdness as more than just teleology, given that he takes semiotic causality to be distinct from the final cause of Aristotle (as a clear innate purpose).

There are a number of conceptual *caveats* we need to make sense of in order fully to understand Deely's metaphysical position. In order to introduce a distinction between what exists and what is cognized, Deely (2012a: 148) defines 'subjective' as "everything that separates us from the rest of the universe" and 'objective' as what "obtains wholly within consciousness as a subjective aspect". These become technical concepts in his usage and do not map properly to their lay counterparts. An object can only be an object in the sense of the position of 'object' in a Peircean sign relation (Deely 2009b). Objectivity then is what happens when we are cognizant of the existence of something. By the same token,

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cleaner on and physically doing so; other formulations may talk about systemic properties modifying the whole (Hulswit 2005) or higher levels of organization being able causally to influence its lower levels (Flack 2017). This is, however, not uncontroversial, and while amply discussed, the jury has not come out of the room and you can hear the deliberation getting louder.

5 The origin of the concept of 'semiotic causation' can be found in Ransdell 1981 as concerning the truth-seeking "purpose" of the sign (Ransdell 1981: 203), or final causation (Ransdell 1981: 206). In this vein, the notion of semiosis is taken as a teleological process towards the interpretation of the sign (Hulswit 1998: 641). I use 'causation' and 'causality' interchangeably here.

we objectify when we put something into our awareness. My vacuum cleaner is an object insofar as it can be perceived as such. A subject is, on the other hand, something like the "essence" of anything that exists – the being as an individual subject.

To reiterate in simpler words: in Deely's metaphysics of semiotics, the world is furnished by individual *existences* – these are subjects, and they entail subjectivity. Cognitive beings such as ourselves can focus our attention on things, sometimes specific subjects even, which become *objects*.[6]

This is a particularly important ontological commitment that appears in Deely's position, as it materializes exactly what makes his view of semiotic causality possible. In his *Purely Objective Reality*, he states that "the mark of the presence of semiosis is the influence of the future upon the present" (Deely 2009b: 165). This formulation is a fairly simple exposition of Deely's causal argument. His work is cohesive to a fault, and the argumentative line he follows necessarily leads him down this road. Deely (2014) argues that the way signs act (semiosis) cannot be reduced to individual identities (subjectivities). He is a realist about relations, which means that he believes relations themselves are ontologically basal and are themselves individuable. Sign relations are, in his view, both intersubjective – they connect individualities – and suprasubjective – they are individualities themselves that contain other individualities (Deely 2014: 595).

The ontological position held by Deely relies on the existence of identities (individual subjects, therefore subjectivity), which allows him to posit that what exists in the world is furnished of properties that can be known through signs.[7]

1.3. The origin of signs in Deely

Empirically speaking, we know a number of things: we have mental faculties, we use things we call symbols, we sense time passing, and so on. The metaphysical position we ascribed to Deely deals with these things by positing another necessary element: relations that unite all the individualities that furnish the world. Following the relative logic of Peirce, Deely involves relations in how he

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[6] With some historical clarity, Deely (2009b: 15) tells us that "the later Latins [...] had an 'intuitive' grasp of the difference between a thing, *aliquid* or *res*, which exists whether or not anyone is aware of it, and an object, *objectum*, which cannot be as object outside of or apart from awareness". '*Aliquid*' is, in translation, 'something' (being the neutral nominative of 'aliquis' – 'someone'), and '*res*' usually corresponds to 'thing'. An account of the historical roots of Deely's conception of objectivity and subjectivity can be found in Bains 2009: 39–58.

[7] This is a direct echo of the tension between the positions held by Kant and Peirce regarding what can be known and to what extent – that is, whether we could really talk about a *Ding an Sich* at all (Wilson 2018).

sees both signification and existence. As such, he proposes a distinction of the kinds of relations that can exist. Here, they come in two flavours: dyadic and triadic. The former can be found as physical relations and as cognized (objective, in Deely's parlance) relations. Physical relations include cause and effect, whereas cognized relations are posited relations between two identities observed by a third. These cognized relations are harder to grasp than physical relations: they already involve a third, but this third is not aware of its being a third in it. For instance, a dog may witness an apple fall from a tree, and as such, this is a cognized dyadic relation (as opposed to the apple falling from the tree with no witness). The dog, however, is not aware of their place as a witness of this dyadic relation. Deely introduces here the concept of a *purely objective relation* – a relation that is only cognized but that does not map to identities. Such a relation is possible between fictional objects (which would still depend on some cognizant agent) (Deely 2009b: 27), but as in case of the above example, these relations are also part of animal (understood as 'not human') perception (Deely 2009b: 118). These are already, one would presume, signs, but non-human animals, being supposedly incapable of metacognition,[8] do not count as entailing proper sign relations, because in this furnishing of relations in the world, there is a difference between cognizing identities and cognizing the cognizing of identities. This claim is supported in Deely by, I think, an outmoded view of animal cognition.[9] The main substantial difference between a representation and a metarepresentation here is psychological. However, Deely is committed to the ontological status of these different *kinds* of relations, and these are secured by the clear and identifiable usage of sign relations as we see in the process of discovery made clear by Peirce.

For signs to exist, as mentioned earlier, we need *suprasubjectivity*, the property of relations to contain individualities while retaining their own individuality (Deely 2014: 601). Deely's position requires us to allow the following: identities exist, and these are joined by relations. Relations exhibit a duality as identities themselves and as relations, and they can include other identities. Here, Favareau sees in Deely's suprasubjectivity the establishment of ends (or 'termini', to use a more Deelian term) that can be actualized, for instance, in evolution (Favareau 2023: 33–34).

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[8] At the time of Deely's writing, the consensus leaned against it (Crystal, Foote 2009), but new evidence is mounting and the debate is still wide open (Beran 2019).

[9] On the other hand, Deely sees humans as the only *semiotic animals*, the only living beings that are capable of noticing their place in sign relations, i.e. engage in metarepresentations.

1.4. Types of causes

Because of the distinction between the kinds of relations that can exist, Deely sees that there are kinds of causes that are granted because of those relations. He acknowledges the existence of *vis a tergo* ('force from behind' in Latin) as the mechanistic causality "of the past determining the future through the present" (Deely 2012b: 315). This, by all accounts, is our everyday notion of causality. Some 'x at time n' causes 'y at time n+1'. But this is not a complete picture of causality, as it only entails physicality. In fact, common causality cannot, in Deely's view, account for non-physical facts. Semiosis, on the other hand, can and does (Deely 2012b: 316). This is where *vis a prospecto* (roughly 'force from the view ahead' in Latin) enters the scene, which is the capability "to transmit through present circumstances an influence of the future rearranging the relevance of past occurrences to *what will be* even though it may not be yet" (Deely 2014: 593).

This second type of causality is, perforce, a kind of retrocausality, but not one that can be defined as a retrocausality that takes place across physical entities in a standard arrow of time. In order to see this, we need to understand that a general retrocausal form would follow that some 'y' at 'time n' causes 'x' at 'time n–1'.[10] A common argument used against this kind of causation – the bilking argument – is that if backwards causation is possible in the first place, it would be possible to wait for 'x' to occur and intervene to prevent the occurrence of 'y', demonstrating thus that 'y' could not be the cause of 'x' (Roache 2009: 605). The original bilking argument, due to Max Black (1956), asks why an effect cannot precede its cause, and the answer is that we could always interrupt the effect, annulling thus the change in direction in the causality.[11] This argument is not foolproof though, and some counterarguments that appeal to possible worlds semantics have been met with relative success. Without committing, however, to possible world explanations, Deely also relies on *virtuality* or *potentiality* within his ontology, as mentioned above.

To see what this virtuality entails, Deely asks us to imagine the following:

- At some point in time 'time n' a dinosaur dies.
- The body of the dinosaur rots away and its bones petrify.
- The petrified bones are found at a 'time n+z'.

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[10] Or that some 'x' at 'time n' *is caused by* 'y' at 'time n+1'.

[11] Black's (1956: 52) example asks us to imagine Houdini's absolutely accurate prediction, under hypnosis, of whether a coin toss will be heads or tails in a kind of precognition. Were this to be the case, we could interrupt the next coin toss and remove any possibility that the effect preceded the cause.

- A future observer understands that the petrified bones belonged to what they understand as a dinosaur, despite there being no dinosaur at all at 'time n+z'.

There is nothing to object to about this hypothetical, except for an explanatory addendum: while the petrified bones are not observed, they are still part of a sign relation in virtuality (Deely 2001: 2009a).

Two avenues are available to us to traverse Deely's argumentation for the existence of sign causality as having some kind of backward causal power:

(1) At the epistemological level, backwards causation happens when we resignify the past.
(2) At the ontological level, the existence of individualities in the past is contingent on sign relations uniting these individualities *qua* objects of a sign and thus necessarily connected to a representamen and an interpretant, even traversing time.

Both of these are very different arguments, with very different explanatory powers and different ontological commitments, and the first one is much, much weaker in all respects, leaving doubt as to whether it would be sanctioned by Deely.[12] Relations, for Deely, are part of our ontological bag and they exist irrespective of cognition. We sustain a relation with the real dinosaur in the past, or something akin to that. Deely treaded this point carefully – as a musement (Deely 2001: 43) or as a suspicion (Deely 2009b: 116), but *vis a prospecto* remains an important part of his legacy – one that deeply influenced Hoffmeyerian biosemiotics. In his already classic "Biology is immature biosemiotics", Hoffmeyer (2009) equated *vis a prospecto* with anticipation in selective solutions,[13] and Deely (2016b: 78) himself attributed the origin of the term to Hoffmeyer, but the notion that future events change the past is present in Deely's work from much earlier.

2. Does the future change the past?

Let us examine once more the prospect of semiotic causality as defined by Deely. The world is furnished by individualities (what he calls subjects), and at least some of those possess cognitive features. These individualities can turn

[12] In fact, this argument has very little reach and is nothing but heuristic. We would be hard pressed to call it causality in any but the coarsest view of the concept.

[13] However, the concept was later removed in the republication of the article in Hoffmeyer 2011.

what they perceive into cognized objects (or just objects in his parlance). Signs are irreducible relations that bound the individualities of the world. Sometimes, these signs are not actualized and instead remain as virtual,[14] and this virtuality is sufficient to imply that the future of the sign will be able to direct the existence of its object in the past. But *what exactly* sustains that last part of this idea? Presumably the story is that at some point the world contained a lot of things, but none of them were alive. All the sign relations that existed were *virtual*. Since we now have things that are alive and traces of things that have existed before, we can, *post-hoc*, state that signs became actualized, ceasing their virtual existence. And quite possibly, it was the direction towards the life that exists now that made those virtualities turn into actualities (Deely 2010b: 112).

The teleological story has wide reach, and Deely has rightfully been criticized for a number of these assumptions (Champagne 2013; Petrov 2013). What is somewhat clear is that Deely's metaphysics leads us towards argument (2), considering the relevance of virtual relations, but that for the argument to work, there is still a missing piece, and that piece may be end-directedness as an essential property of relations, for relations must have a *terminus*. But end-directedness can only carry us so far. Deely's notion of semiotic causality as having at least some retrocausal power relies on us believing that sign relations are ontologically basal, that they have as one of their properties end-directedness and that their terminus modifies the past towards whatever that terminus may end up being.

We have seen that in Deely's philosophical view, his concept of semiosis needs these specific metaphysical commitments to work. However, many of these commitments may be considered as *post-hoc* assumptions about the nature of sign relations. In other words, we could say that *because* we have sign relations there could not be another universe in which we would not have had those sign relations,[15] and that *because* we have metarelations [i.e. metacognition, or what Deely (2008) calls 'metasemiosis'], we have a physical environment that is the way it is because it addresses future states (Deely 2008: 479). More exactly, the argument goes as follows: in Peirce, a thought exists because it addresses a more

[14] A stronger conception of virtuality (and its sister concept of physiosemiosis) comes from Deely 2010b: 111: "Nor need the interpretant even be actual but only virtual, as often occurs in physiosemiosis, particularly in the early phases prior to life where the future influences the past through the present sufficiently to bring it about that events move in the direction of the emergence of living things and beginnings of biosemiosis". These concepts continue to foster resistance and dialogue, particularly within biosemiotics (Cobley *et al.* 2017).

[15] This is impossible for two reasons: Deely did not appeal to possible worlds and, most likely, would not have, and the ontological categorization of the world already implied the virtuality of signs. They are, in a way, pretheoretical.

developed thought in the future; thoughts are signs; thoughts pertain to semiosis; if semiosis is involved in physical actions, then the physical is what it is because it addresses future physical states. In Peirce we see that "thought is what it is only by virtue of addressing a future thought which is more developed" (CP 5.316, cited by Deely 2008: 468), which Deely takes to mean that a thought in the past *must* be defined by a thought in the future, following the path of Peirce's *law of mind* (CP 6.104). Compare this, however, to the view that "reality for Peirce is both that which is independent of what anybody may think, and that which will be an object represented in the ultimate opinion of mankind" (Rosenthal 1994: 89–90) when referring to the idea of a more developed sign. Deely's interpretation is shaped like a modal claim in that it takes the *being* part of semiotic causality seriously with regard to signs. This, however, does not need to entail any form of backwards causation: even if Peirce suggests that thought (*qua* consciousness) exists in virtue of its usefulness, Peirce's argument makes an appeal to the existence of a community, and so its interpretation can be relative to a practical dimension. Whether it maps to truthful states or not does not seem to justify its ontological status as enabling backwards causation, though it allows us to paint a picture about what is the case in the world at different points in time.

In addition, Deely does not distinguish the effects of a cause from the cause itself. Let us look at the final part of the argument again. If signs have indeed caused something physical to happen, then the physical thing that has been caused addresses some future physical states. Yet we would need to accept that the physical thing that has happened is identical with the sign that has caused it. The reality of the relations is what allows this to happen in Deely.

So how does argument (2) work, following the reconstruction of Deely's argument? How does 'sign y' at 'time n' cause the existence of 'sign x' at 'time n–1', or any other formulation that leads to a sign in the future causing either a sign or something else in the past? Deely (2009a: 271) sees anticipation of the future as shaping our actions, and here we can flesh out the need for this form of semiotic causality more properly. Deely posits *vis a prospecto* to *solve* anticipation. That is, because he is committed to the reality of individualities with their properties, and the reality of relations – even in virtuality – we need to establish how we come to anticipate things. For example, when I anticipate an apple falling from a tree (because of a broken stem or the strength of the wind or anything else), whether it falls or not, it is the properties *in potentia* of the falling of the apple that make me reason that this will happen. But because these relations are real insofar as they entail real possibilities – virtualities, they are being caused by future states of affairs. The ontological commitments that come from accepting individualities

and their properties as establishing existing relations result, in fact, in being able to posit this kind of retrocausal signification.

To recapitulate the reason for a view like (2), we need to see it in light of Deely's belief in how a phenomenological exploration allows us to talk about the things that exist, even outside of the scope of cognition.[16] These things have properties that can be known to us, because they establish relations with other things and, potentially, also with us (as individuals capable of knowing about semiotic relations). The scope of these relations traverses time and space, because relations can be established from multiple positions. Because Deely is committed to relations ontologically, the result is that properties of future states also affect past states, and in Deely these are not solely about possible judgements we can make about the world. Instead, because these properties are part of the things that exist, they necessarily engage in *making things become* other things. My anticipation of an apple falling is partially dependent on future states, not solely for truthful confirmation, but because what we can know depends on what is, and future states exist in virtuality. While Deely's account allows for errors, these errors also hinge on relations, as we have seen earlier.

When we expressed argument (1), we removed a strong sense of backwards causation from the picture, but I believe Deely is hinting at this strong sense to be true all along. It seems that (1) presents a more reduced case of semiosis changing the past, though: it is a heuristic resignification of the past not by changing the literal past, but just our present understanding of it. In that sense, then, semiotic causality does not depend on complex cross-temporal metarelations, but only on metarelations at the metacognitive level. Signification, in this sense, would be a much simpler phenomenon: not requiring extraneous temporal dimensions would simply mean that we do not need to posit potentialities as realities and that the origin of semiosis is covalent with the origin of perception. Signification *lato sensu* would be a much more parsimonious phenomenon that would still be compatible with a less committed version of Deely's 'semiotic spiral', defined by abduction (generation of ideas from experience), deduction (drawing consequences from these ideas), and retroduction (verifying these consequences) (Deely 2010a: 88).

Looking once again at my vacuum cleaner, I can see how the idea of cleaning *led* to the creation of a device for more efficient cleaning. But to say that my vacuum cleaner – or anything that has to do with vacuum cleaners in the future – has resignified the existence of dinosaurs (it does indeed contain a lot of plastic

[16] I make this difference here in the sense that, by following Peirce's view on Kantian epistemology, Deely believes that we can know about firstness and that firstness, as well as our knowledge of it, is bound by logic.

materials) as 'vacuum-cleaning bearers' seems to take away from the inventiveness of the device and its creators (and from dinosaurs, certainly), and does not seem to explain anything in relation to how we got to a point where we had vacuum cleaners. Simply put, the story of a strong *vis a prospecto* does not seem to map to actual signification, but rather to a web of assumptions about sign relations across time scales that are unnecessary to reflect the way we cognize our world.

3. Positive deflation

Signification, when taken from a semiotic perspective, does not necessitate backwards causation. That is what I stated at the beginning and, to make matters clearer, we will construct a positive deflationary case for using interpretation (1) as a plausible – albeit ontologically weak – form of semiotic causation. Semiotic causation, removed from a strong causal characterization, still needs to be understood as the capability of meaning to cause behaviours that are not fully derivable from either the actor of said behaviour nor from the local configuration of the landscape of said actor. With this preliminary construction, we do not need signs to be in actual connection with the past. All we need is a simplified account of our reassessment of the past. That does not make the past "alive", yet it makes our knowledge of the past different, and the semiotic scaffolding proposed by Hoffmeyer (2007: 152) becomes a corollary of semiotic causation so described not by appealing to sign persistence, but to perceptual and communicational persistence in communities of perceivers.

What is at stake in a positive account of semiotic causality is, in any case, the possibility to appeal to external factors (to the organism) that explain the development of behaviour, niche construction and change, that are not fully identifiable with the configuration of the organism's external world. That is, this account of semiotic causality is an embedded, interrelative view of the organism–environment coupling where there is meaningfulness in the relative objects that exist in the coupling itself.

Epistemologically speaking, then, semiotic causality does account for the building of a scaffold insofar as we can identify significative elements in the coupling. Ontologically, it is a different story. We only rely on present states, and we do not characterize signs (or any other meaning-bearers) as either traversing time in multiple directions, nor on their potentiality, except at the highest level of cognitive inference. Signification then becomes less expensive, to the point that dinosaurs would be vacuum-cleaner-bearers *only to the extent that* we can frame them as such. Virtuality, being an artefact of Deely's metaphysics of

signification, is dampened in that it becomes unnecessary to account for signs and sign action without losing value in framing semiotic causality. The positive deflation of signification within this particular discussion does not deny *value* to the proposition that the qualitative can have an actual impact in biology, particularly from a biosemiotic point of view. All it does is reduce the scope of semiosis to a more manageable portion. That being the case, Hoffmeyer's scaffold, that is, the persistence of signs marking behaviour in organisms, is still efficient without any appeal to resignification. Or, in other words, resignification may be a metacognitive function completely devoid of ontological power.

Briefly, then, the general point I am trying to make is that sign causality may be an *emergent class*, much like semantics *may* be an emergent class, not brought about by a cross-time dimension. We can be realists about sign relations in a less strict sense by not having to appeal to meaning-bearing endpoints in the existence of any single entity, which leads us to refuse the idea that relations are indeed identities with their own properties. Elsewhere I have made the case that a more productive view of the relations that build meaning lies in dividing them into nomic and non-nomological relations, with the latter illuminating just what may be a form of meaning-generation in organisms (Rodríguez Higuera 2023). What I am arguing here is that relations that derive in meaning-making do not need to be granted retrocausal properties, *pace* Deely, effectively to bring about inference or even abduction. *Vis a prospecto* is, in this view, a result of Deely's semiotic metaphysics and a necessary element within his own Grand View, and as such it should be given consideration – whether from a critical stance as I have done here or in refining his already complex thought, particularly considering his strong influence upon the field.

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Vis-à-vis: La significación no requiere de causalidad inversa

Este artículo examina la metafísica de la significación considerada en la obra filosófica de John Deely, esgrimiendo dos argumentos: primero, que la metafísica de Deely permite retrocausalidad en la significación; y segundo, que es posible defender una forma más parsimoniosa de significación en comparación con la visión de Deely. El artículo recorrerá brevemente el trasfondo de la metafísica peirceana seguida por Deely para luego describir la idea de causalidad semiótica que desarrolla en su obra, incluyendo la relevancia específica del *vis a prospecto*. Mi argumento es que al dar cuenta de la significación, invocar estados pasados que han sido modificados por estados futuros sólo puede lograrse bajo una consigna epistemológica débil, en contraste con la visión modal que se puede derivar del pensamiento de Deely.Dado que la metafísica de Deely ha tenido una profunda influencia en el discurso filosófico de la semiótica actual, es importante tener en cuenta sus compromisos ontológicos particulares para dar cuenta de la significación. La visión de la causalidad semiótica como un fenómeno teleológico presente en Deely ofrece un potencial explicativo capaz de describir cómo ocurre la significación, incluyendo las causas de los signos, pero sus consecuencias pueden resultar contraintuitivas a la hora de buscar las bases de la creación de sentido. El artículo ofrece una posición alternativa deflacionista que retiene un sentido débil de causalidad semiótica y evita los riesgos del *vis a prospecto* de Deely.

Vis-à-vis: tähistamine ei muuda vastupidist põhjuslikkust paratamatuks

Artiklis vaadeldakse tähistamise metafüüsikat John Deely töödes ning esitatakse kaks argumenti: (1) Deely metafüüsika lubab tähistamises vastupidist põhjuslikkust ja (2) võib leiduda ka kitsam seisukoht, mida on võimalik kaitsta. Artiklis uuritakse lühidalt Peirce'i metafüüsika tausta ning tegeldakse seejärel tema spetsiifilise semiootilise põhjuslikkuse mõistega, sealhulgas "*vis a prospecto*" olulisusega tema töödes. Ent väidan, et tähistamisele selgitust andes võib tulevikuseisundite poolt muudetud minevikuseisunditele apelleerida üksnes nõrgal epistemoloogilisel viisil, vastandina sellele, mida pean Deely modaalseks seisukohaks. Et Deely metafüüsika on sügavalt mõjutanud kaasaegse semiootika filosoofilist diskursust, on oluline hinnata ontoloogilisi kohustusi, mida on võetud, et tähistamine saaks aset leida. Deely ülevaade semiootilisest põhjuslikkusest kui teleoloogilisest nähtusest võib pakkuda võimsat selgitavat raami sellele, kuidas tähistamine toimub (ja ühtlasi, kuidas tekivad märgid), ent sellest järelduv võib tulemuseks anda intuitsioonivastaseid tähendusloomest mõtlemise viise. Pakun välja positiivse deflatsioonilise seletuse, kuidas säilitada semiootilise põhjuslikkuse nõrgemat tähendust, vältimaks ohtusid, mida põhjustab *vis a prospecto* Deely ettepanekus.