

# Representation and Intentionality in a Framework of Aristotelian Powers

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## Two Types of Perspectivity

What we see, what we feel and what we represent have their perspectivity in common. This does not by itself entail that their perspectivity has to be explained in the same way, nor even that it is of the same type. The perspectivity of perception is partly physiological, partly a question about the perceptual milieu and partly a matter of the relative orientation of perceiver and perceived: what I see when I see the stick is how half-immersed sticks, in this situation, look to me from where I am. The perspectivity of emotions is at least in part explained by their being reactions by specific emoters to specific situations: what is dangerous to me is perhaps not dangerous to you. This may justify an account of the formal objects as being itself perspectival: the correctness of my fear could then be said to turn not on danger *tout court*, but on danger-for-me-now-here. With representation generally, many different factors may matter for perspectivity: while some of them may also be attributed to the formal object (e.g. assertability-in-the-philosophy-seminar), or even to the direct object (e.g. Hesperus rather than Phosphorus), others are types of medium- or message-specificity (e.g. ‘analog’ representations exploiting my contingent discrimination thresholds, de-se or de-nunc representation that makes the content itself dependent on the representer or, even more specifically, the act of representing itself).

I hope some clarification may be achieved by distinguishing two closely related, but distinct features of at least some mental states: intentionality and representation. Here are their, rough and provisional, characterisations:

**Intentionality** A mental state is intentional iff it is ‘directed’ towards something outside itself, where this directedness exhibits the ‘presence in absence’ feature, i.e. a ‘pointer’ ‘standing in’ for something (at least potentially) absent.

**Representation** A mental state is representational iff it is either correct or incorrect, i.e. can be assessed in terms of its ‘fit’ to the world, i.e. in terms of what (if any) information about the world its occurrence has.

According to Brentano, intentionality is the mark of the mental: it is the feature whereby some internal state reaches out to the world, directing the mental subject towards such (potentially absent) features. Correctness conditions specify such intentional content, but – being conditions – do not themselves require this content to be satisfied. If I am looking for the Holy Grail, for example, my activity is directed towards, and rationalisable only with respect to the Holy Grail, which, or so we shall assume, does not exist. I am intentionally directed towards the Holy Grail, without standing in a relation to it: there is nothing, after all, for me to stand in a relation to. While searching, it is in my search that the Holy Grail is ‘present’ to me, as the thing I am looking for; that it is ‘present’ to me here just means that there are conditions, if it is non-pathological, that determine when my search would be successful. For this, I do not have to be able

to describe the Holy Grail, and even less to uniquely identify it; it is enough if ‘I know it when I see it’ and would then regard my search as successful.

According to Dretske, it is transmission of information, in particular along causal links, that explains how things like us succeed in representing the world. While natural signs, such as smoke indicating fire, may be (and, according to the orthodox Shannon-Weaver theory of information, are) information about their causes, they do not encode this information in a format suitable for its transmission. Information transmission in full-blown human communication, on the other hand, is incredibly complicated: not only do people lie and mislead, neither mean what they say nor say what they mean, but a number of complicated ‘uptake’ conditions on the side of the hearer must be fulfilled for information to be transmitted (communicative acts have to be understood, in some sense of this slippery term). Dretske’s paradigm cases lie in between these two extremes: measurement devices such as speedometers are not ‘natural’ signs for what they represent, even though they stand in causal contact to it; given their adequate design and proper functioning, however, they transmit information independently of being read or understood in any way.

Both intentionality and representation ‘involve’, in some way, the world, or something outside their media; both give us a sense in which mental states are ‘about’ something else. They do so, however, in slightly different ways: they differ in how they cross-cut two distinctions commonly identified with each other: while representation is intrinsic, but also relational, intentionality is non-relational, but also extrinsic.

As commonly introduced, intrinsic properties of *a*

1. are / account for / ground ‘how *a* is by itself’, are exemplified by *a* ‘in virtue of the way it is in itself’;
2. make for genuine similarity, are ‘non-disjunctive’, have ‘non-gerrymandered’ extensions;
3. are shared by *a* and its duplicates / replicas / perfect copies.

It is the first feature that excludes *having a brother*, for that property of me involves my brother; it is the second that excludes *grue*, for being *grue* is being green and examined before *t* or being blue and examined at or after *t*; it is the third that excludes *not being accompanied by a unicorn*, for that property could be lacked by a perfect replica of the entire universe, existing in a larger world that also contains some unicorn.

In some metaphysical systems, intrinsic properties are supposed to play certain theoretical roles. They

1. are qualitative natures of combinatorial units;
2. make for real, as opposed to Cambridge change;
3. do not entail, nor are entailed by the existence of any other things wholly distinct from their bearers.

Combinatorial units – “substances” in one sense of this term – are the elements that are recombined when describing alternative possibilities. Socrates becoming taller than Simmias is a real change for Socrates when Socrates grows, but a Cambridge change for him if Simmias becomes smaller. A (neo-)Humean ban on necessary connections between distinct existences is restricted to their intrinsic properties: that my being such that Socrates is white entails that he is white is not a reason to deny me that property, but rather a reason to think it is not non-relational.

It has turned out surprisingly difficult to turn this intuitive notion into a precise definition. According to the most discussed proposal, by Lewis & Langton (1998), a property is intrinsic if it does not distinguish between things that have the same pure, non-disjunctive and non-co-disjunctive properties that are independent of loneliness and of accompaniment.<sup>1</sup>

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1. A property is pure iff its exemplification does not imply the existence of anything else than the thing exemplifying it. Something is accompanied iff it does not coexist with a contingent wholly distinct thing and it is lonely iff it coexists only with its proper parts (if it has any). A property is independent of loneliness (accompaniment) iff it is both possible that it is had and that it is lacked by a lonely (accompanied) thing. A property is *disjunctive* iff it can be expressed by a disjunctive predicate but is not natural and much less natural than either of its disjuncts. The pure, non-disjunctive and non-co-disjunctive properties independent of loneliness and accompaniment are called “basic intrinsic” by Lewis and Langton. Their definition says that a property is intrinsic iff it supervenes

At least *prima facie*, the relational/non-relational contrast is different. Non-relational properties of  $a$

1. do not ‘essentially mention’ other things than  $a$ ;
2. do not ‘stem from’ metaphysically / conceptually / explanatorily prior relations  $a$  has;
3. are ‘genuinely monadic’;

Saying of me that I am Michael’s brother ‘essentially mentions’ Michael – which is why it is an ascription of an ‘impure’ property. It is also a derivative property, presupposing (and mentioning) the prior relation of brotherhood that obtains between me and him, and it is for this reason not ‘genuinely monadic’, but a de-relativisation of a relation, i.e. a relational property.

Relational properties are also supposed to play certain theoretical roles. Non-relational properties

1. are wholly qualitative: their nature is exhausted by how the things that have them are;
2. are non-haecceitistic: may be shared by distinct indiscernibles;
3. are pure, i.e. entirely general, i.e. do not involve particulars.

If Michael has an indiscernible twin, everything qualitative ascribable to me by predicating “...is Michael’s brother” could still be true of me, and I could still lack the property (being rather the brother of his twin); conversely, my qualitatively identical twin could lack it if Michael does not coexist with him; hence, a general description of the world, not involving names or referential devices, will not fix whether or not I am *Michael’s* brother (rather than the brother of his indiscernible twin).

Attempts at defining relationality of properties have mainly focussed on purity. A property  $P$  is called “impure” iff there is a relation  $R$  and a  $y$ , such that whenever anything,  $x$ , has the property, it also stands in relation  $R$  to  $y$ . Metaphysically, relational properties have been characterised as properties that are individuated with reference to relations (Hochberg 1988: 196): to say that, generally and as a matter of logical truth, if  $a = b$ , then  $\lambda x(aRx) = \lambda x(bRx)$ , we need to quantify over relations.<sup>2</sup>

Though this is not widely remarked in the literature, it seems to me that so-characterised at least, the two distinctions crosscut. Here are some examples of the relational intrinsic:

- *having a as a part*: this is intrinsic because it only turns on how its bearer is by itself, but relational, because it mentions  $a$  (and not its duplicate!) as its part.
- the value of Diana’s dress: this is its intrinsic value because it is not determined in terms of what you can buy for it, why you want to have it or any other external determinants, but is the value it has in virtue of what it is in itself, i.e. in virtue of being *Diana’s* dress; it is still relational, however, because a dress worn by her indiscernible twin would be (much?) less valuable.
- *being of a crime* of some punishment: this is intrinsic if the punishment is reserved for this crime, and intimately depending on it, as e.g. a specifically destined act of reparation is; it is still relational, however, for the punishment relates the punished to the crime they committed: qualitatively the same punishment for another crime would relate the punished to something else.

Here are some examples of the non-relational extrinsic:

- *not being accompanied by a unicorn*: this is an extrinsic property of everything there is because everything there is could be just as it is and a unicorn exist in addition; it is not a relational property, however, because no relation can relate you to something that does not exist.
- *being all there is*: this is extrinsic by the same token, but also non-relational, unless you posit ontologically dubious and (arguably) paradoxical existing ‘totality states of affairs’.

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on basic intrinsic properties, or, equivalently, iff it never differs between duplicates (where two things are duplicates iff they have the same basic intrinsic properties).

2. The reason why loving-Superman and loving-Clark-Kent is one and the same property (and Lois Lane, as a matter of logic, exemplifies one iff she exemplifies the other), is that Superman is Clark Kent; therefore, the properties are not atomic, but derelativisations of the prior relation of loving.

- *being surprising* of an event: this is extrinsic, because an event has it only if embedded in a certain context, within which it is surprising; it is non-relational, however, because you can wholly and completely appreciate this characteristic without remembering or otherwise knowing what has gone before.

### **Intentional properties are extrinsic, but non-relational**

The representationality of some properties has to be sharply distinguished from their intentionality. A property of something is intentional iff it is *taken to be* about something else than itself. It is so taken to be if we attribute to it conditions under which it may be said to be correct. Correctness conditions specify the intentional content, but – being conditions – do not themselves require this content to be satisfied.<sup>3</sup>

Because they are outward-directed, and cannot be accounted for without reference to their intentional objects, intentional states are extrinsic: they are what they are in virtue of participating in a complex process, which not only involves their objects and their bearer, but also a process of interpretation or understanding.

Intentionality is the flip-side of representation: whereas representational properties are intrinsic, but relational, intentional properties are extrinsic, but non-relational. Taking up an attitude towards the cognitive base turns the latter's relatum into the former's 'intentional object'. Such a 'conversion' of the relatum of a representational state into the intentional object on which an intentional state depends for its existence without being related to it, is what happens in Kantian 'synthesis': when I see a thing as red and white, redness and whiteness hang together by being aspects of the one thing my perception relates me to; when I, however, only imagine a red and white thing, the link can not come from the object alone – it must be 'constructed' by my faculty of imagination, and it is so constructed by my imagining *one* thing as both red and white. This intentional object will therefore be extrinsic, depending for its existence on my act of taking my representational state in a certain way.

### **Representational properties are intrinsic, but relational**

Virtually any state can be used as a representation: you can decide to use a red flag to represent danger and you can take your aching muscles as a sign that you should not have walked that far. Such representational contents, however, derive from contingent dispositions to interpret the relevant states in certain ways. Since you could equally well take red flags or aching muscles to represent something different (that the communists are marching or that your work-out has been successful, for example), neither the red flag nor the aching muscles have their representational content intrinsically. Independently of what properties they intrinsically have, we *use* them as signs for other things, we *bestow* on them the representational powers they have. Not all powers of representation, however, are derivative in this sense. Our propositional attitudes and our perceptions, for example, do not seem to derive their representational contents from other states by the use we make of them: they have their content originally, not in virtue of being interpreted by some other mental state.

Many things may thus be said to have content, but most of them do so indirectly: they have content in virtue, for example, of having been produced in a certain way or with certain intentions, or of standing in some relation to other things that have content. The most important such relation is that of some things expressing other things. It is in virtue of expressing my beliefs that my utterances have content, and – subject to certain constraints – the beliefs expressed determine what content they have.

That some representational properties are exemplified intrinsically by some things follows from the following argument:

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3. It is only as an analysis of intentionality, not of representationality, I think, that Aristotle's theory of thoughts being likenesses of objects has any plausibility.

- (i) Some things have representational properties.
- (ii) If something exemplifies a representational property extrinsically, it does so in virtue of there being something else that bestows it with this representational property.
- (iii) In order for something to bestow something else with a representational property, the first thing needs to exemplify this representational property itself.
- (iv) The transmission of representational powers can neither go on forever, nor go in circle: it must be started by something.
- (v) A thing that has a representational property that is not bestowed upon it by something else exemplifies it intrinsically.

Take the representational property *that rabbits are present*, exemplified by my utterance of “Lo, a rabbit”. It is exemplified extrinsically: my utterance could be just as it is by itself and express another belief, or no belief at all. By (ii), this representational property is bestowed upon my utterance by something else – something which, by (iii), has it itself. By (iv), we conclude that the regress must stop, and by (v) we know that it must stop with something that *intrinsically* means that rabbits are present.

Representational properties like *meaning that Fa*, *representing a to be F* or *thinking of a as F* are intrinsically exemplified by some thing *x* iff *x* exemplifies the property independently of how matters stand with respect to other things than *x* – no further properties have to be exemplified for other things for my thought, e.g., to represent *a* to be *F*.

Even when they are exemplified intrinsically, however, representational properties are still relational: they connect their bearers to the things they are about. If my thought, for example, represents *a* to be *F*, it stands in the relation of aboutness to *a* and in the predication relation to the universal *F*. It is in virtue of these relations that my thought can stand in for *a*’s being *F*, and be in some sense a substitute of this external fact.<sup>4</sup>

## Aristotelian Powers

In her ch. 1, [Marmodoro \(2014\)](#) presents the hylomorphic account of change in terms of an underlying matter changing its form between opposites. In particular, she attributes to Aristotle two main views of contemporary relevance ([2014](#): 3):

- that all properties are causal powers (*δυνάμεις*, potentialities);
- that causation is the activation of such powers (*ἐν ἐνεργείᾳ* or *ἐνεργείᾳ*, actuality).

Contrary to many contemporary theorists (who normally think that the disposition does not ‘survive’ its manifestation), Marmodoro’s Aristotle accepts *activated powers* as such, i.e. things that are both powers and actual:

...the actuality of a power is to be interpreted as its *state of activation*; its exercising powerfulness. For Aristotle, a power does not cease to be powerful while activated, nor is its powerfulness reducible to mere potentiality... The powerfulness of a power is either the potentiality to bring about change, or the actuality of bringing about change. ([Marmodoro 2014](#): 4–5)

Marmodoro illustrates the point with the first vs. second actuality distinction from *De Anima* (cf. II.1 412a10–11, 21–27 and II.5 417a22–29, 417b2–16). I potentially know Finnish, because I have the capacity to learn Finnish which I would then actualise by speaking Finnish. Learning Finnish is the first actualisation of the my capacity to know Finnish, speaking it the second. The potentiality to second-actualise my potential

4. Different accounts of this relation of standing-in have been proposed, from Aristotle’s ‘being-a-token-of’ – “It is not possible to converse by bringing in the objects themselves, but instead of the objects we use words as tokens”, *Sophistici Elenchi* 1, 165a6–8 – to the scholastic modes of objective existence.

knowledge of Finnish (i.e. the capacity to speak) is not only compatible with but presupposes its first-actualisation (my learning Finnish).

In the context of *De Anima*, the distinction (I surmise) is supposed to allow Aristotle to combine two intuitively plausible claims: (i) that the colours we see depend for what they are (and not only: for how we see them) on how we see them, *inter alia* on our (types of) eyes; (ii) even before the first eye evolved, burning lava (e.g.) was red (i.e.: it is not the case that coming into being of the first eye *made* things have the colours they (now) have). It allows him to do this because eyes enter only into the *second* actualisation of the colours, light is responsible for the first one: light makes colours visible (and actualises them, for they are visibilia), but eyes make them seen and thereby realise their ‘full’ potential.

Marmodoro seems to generalise this account quite widely (though perhaps I’ve misunderstood). The potentiality of water to break, for example, is first-actualised by its freezing, and second-actualised by its being crushed. When the ice is crushed, it is no longer breakable (“brittle”), but its potentiality to break is retained at the stage of its first actualisation (when it is ice). So this is a case where some power (to break) is actualised (by freezing) and retained as a power (at least at the stage of its first actualisation).<sup>5</sup>

**Non-exhaustibility of powers.** Crucial to Marmodoro’s conception of Aristotelian powers is her conception of their ‘powerfulness’: that they become activated and produce change while at the same time remaining powers, i.e. powerful. In other words: for Marmodoro, in contrast to most contemporary friends of dispositions, the activation / manifestation of a power is not an event (*produced* by that power, or by the power and its ‘manifestation partners’), but a state of that very power.

The first-vs.-second actualisation contrast does not quite do this, as it allows for a weaker reading according to which the first potentiality is strictly speaking *only* the potentiality to acquire a certain skill (speaking Finnish, for example), which is lost when activated, while it is only loosely describable as the potentiality to activate the skill (which, of course, is retained when the skill is acquired). This may be corroborated by the earth-wood-casket case (*Met.* 1049a18-23) Marmodoro (2014: 66, fn. 14) herself cites: while earth is potentially wood and wood is potentially a casket, earth, strictly speaking, is not a casket.

Not only is the actualisation of the power (ie. the change it produces under the right circumstances) compatible with its continued existence as a power, it is also *intrinsic* to the power:

Being activated is simply exercising the powerfulness that defines what the power is. (Marmodoro 2014: 10)

While the ‘powerfulness’ of powers has to be distinguished from their activation, it is not in need of a categorical basis: powers do not need to be grounded in something which is not a power – they are “pure”, in contemporary parlance.

The activation of a power is a state of it, an “activity” the power is “engaged in” (Marmodoro 2014: 13), either instantaneous (*energeia*, *praxis*) or temporally extended (*kinesis* in the strict sense, process). The latter allow for a distinction between partial and full realisation; only when fully realised does the product ‘follow’ and its end (*telos*) is realised; however, the process is actualised already before and the change is taking place: the change is the house-building, the actualisation of the potentiality *qua* potentiality (while, presumably, the house would be the actualisation of the potentiality *qua* actuality).

**Intrinsicness of the activation to the power.** Though Marmodoro (2014: 67-68, fn. 26) is right to distinguish her view from the even more extreme position of Martin (2008: 51) that not only the activation but the very manifestation of the power is intrinsic to it, that ‘directedness’ is intrinsic is still a strong and

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5. One may be forgiven to wonder whether really it is plausible that water (i.e.: the liquid, here in the glass in front of me) is breakable? It has, for sure, the potentiality to *turn into* something (perhaps: something identical to it) that is breakable, namely ice, but does it (the liquid, the contents of the glass in front of me) have the *capacity* to break?

somewhat implausible claim. Powers are not activated all by themselves, but only under certain circumstances (the heater has to be turned on, for instance)<sup>6</sup> – why should we not then attribute this activation not partly to the other factors too?

It is true that Aristotle takes the occasion (I should not say: cause) of the activation (fulfilment, the passage from potentiality to actuality) to be something he calls “contact” and conceives of it as something like (what we would call today) an “enabling” or “triggering condition”; it is equally true that the type of contact needed and the type of possible activation partners may be, perhaps even have to be, mentioned in the definition of the power in question. But it still does not follow that the activation is intrinsic, for things may be defined by extrinsic properties.

Presumably, the reason Marmodoro has not to think that powers are extrinsically individuated is that their *telos*, the form they are able to ‘transmit’, is ‘given’ (specified? determined?) by their activation partners, the correlative passive powers, to which they stand in a relation of ontological dependence which is not a relation. This is certainly true, but not a sufficient reason. For they also also intimately related to their passive powers in another way: when power  $p_1$  becomes activated together with its passive correlate  $p_2$ , the process (or activity) which is the activation of  $p_1$  is (*the very same thing as*) the activation of  $p_2$ . Aristotle even says that this “sameness-in-actuality” grounds the ontological dependence:

**Since** the actualities of the sensible object and of the sensitive faculty are one in actuality, while different in their modes of being, actual hearing and actual sounding appear and disappear from existence at one and the same moment, and so actual savor and actual tasting, etc., while as potentialities one of them may exist without the other. (*DA* 426a15-21, cited in [Marmodoro 2014: 44](#)), emphasis added)

The actualisation of a power depends on contact (*thixei*, *Phys.* 202a5-9) with its correlative power, on which it is existentially dependent. Powers are thus relative, but not for this reason relations: the power to heat, e.g., is ontologically dependent on the power to be heated (if the second were not to exist, neither would the first, and vice versa), but this dependence is grounded in some of its monadic properties. The power to heat and the power to be heated can only exist (i.e., for Aristotle: be exemplified) together, but not because they are de-relativisations of a conceptually and ontologically prior ‘ $x$  heats  $y$ ’ relation, but primitively so. To make it plausible that this applies not just to the activation of powers, but to powers-in-potentiality, Marmodoro refers to Aristotle’s views of possibility:

...if there is nothing that can be so affected, how can there be a power whose nature is to bring about that effect? Aristotle believes in some form of the Principle of Plenitude – namely, that what is possible will happen. If so, then it follows that he believes that the end of each power in potentiality must be realizable. ([Marmodoro 2014: 32](#))

When the activation conditions are fulfilled, the activation follows by natural necessity: *unless something external interferes* and *for the most part*, both the active and the passive powers become activated. When the resulting powers are different from those activated (but also: only then),<sup>7</sup> we have change. When the active and the passive power come together, they become activated. This mutual activation of the powers is causation (rather than: has a causal effect):

The interdependence of the relative powers translates into their mutual *qualitative transition* to exercising their powerfulness, which is what their causal interaction consists in. ([Marmodoro 2014: 34](#))

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6. The dependency on other factors is precisely what is missing from Marmodoro’s example of “the relation of a girl to the woman she becomes [said to be] intrinsic to that person” ([2014: 20](#)).

7. This additional claim is made by Marmodoro on p. [2014: 33](#), though on p. [2014: 39](#) she calls “change” the “actuality or activation of the passive power”.

In this causal interaction, Aristotle says, we have a transmission of a form from the active to the passive power (or rather: from the thing exercising the active power to the thing (possibly itself, but *qua another*) exercising the passive power). The transmitted form is then the “principle or cause” (*arche* or *aition*) of the motion (*kinesis*) (*Phys.* 202a9-12). Even though causation is symmetric (it is the joint activation of correlative powers), the form is transmitted *from* the one *to* the other, though Marmodoro stresses that this is just a figurative way of talking (though also admitting that we cannot explain *for what* it is a metaphor):

The transference of the form of the active power to the passive one is not a description of the mechanism of causal efficacy, but only of the type of qualitative change that takes place in the passive power. Aristotle has identified a ground-level activity that cannot be explained by more primitive ontological tools. (Marmodoro 2014: 37)

While it is, in her view, inexplicable (and only metaphorically expressable), the ‘transmission of form’ has to be itself a process, which takes time and may be interrupted before it is completed: the change is thus the *gradual* reception of the form by the passive power (i.e.: the activation of a thing’s power to receive the form), itself a process.

**Purity of powers.** While it is certainly an acceptable interpretative hypothesis to take Aristotle’s powers to be pure, it is not *mandated* by Aristotle’s characterisation of them as originative sources of change in *Met.* 1046a9-11. Indeed, Marmodoro herself allows for cases where a power (such as weight) is exercised without there being any change (neither a process nor an activity), such as with the the floor sustaining my weight (2014: 33).

To me, the ‘purity’ of powers, their lack of non-dispositional properties, makes the existential dependence between reciprocal powers quite mysterious. The power to heat and the power to be heated, Marmodoro says, are existentially dependent: neither could exist without the other. This existential interdependence applies to powers also in their merely potential state:<sup>8</sup> even for some piece of wood to have the *capacity* to heat, there must be things that can be heated. This is quite startling: why could there not be things that are see-able, in principle, such as rocks, without there being anything that has the capacity to see them (e.g. because no eyes have evolved)? This makes only sense to me if see-able things have another, non-dispositional or categorical property that *makes* them see-able, present already before the evolution of the eye and in virtue of which things become see-able once an eye has evolved.

Marmodoro’s invocation of the ‘principle of plenitude’ does not help: even if everything that is possible will eventually happen (i.e.: what never happens could not have happened) and thus forever unactivated powers are impossible, ontological dependence is usually taken to be synchronic (and if it is a genuine diachronic relation, we have a rather new and startling way in which the past determines the future!).

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8. Marmodoro is clear about this implication of her interpretation of the ‘powerfulness’ of powers 2014: 68, fn. 32; 32, though she also very misleadingly says: “*Pros ti* properties are monadic properties such that their manifestation or activation depends counterfactually on the activation of their correlatives.” (2014: 29) – it is not just their activation, but their very existence which so depends!



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