

Essentialism vs. Potentialism: Allies or Competitors?

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Abstract: Do essence-based accounts of necessity and Vetter's potentiality-based account of possibility in fact lead to the same result, viz., a single derived notion of necessity that is interdefinable with possibility or vice versa? And does each approach independently have the ability to reach its desired goal without having to rely on the primitive notion utilized by the other? In this essay, I investigate these questions and Vetter's responses to them. Contrary to the "separatist" position defended by Vetter, I argue that there are reasons to favor "Combination", according to which an essence-based account of necessity should be combined with a potentiality-based account of possibility, or vice versa. According to this alternative approach, essentialism and potentialism should be regarded as allies, rather than as competitors, in a theory of derived modality, since both notions are needed in order to give a full account of necessity and possibility.

Keywords: possibility, necessity, potentiality, essence, interdefinability, actuality, dependence, artifact-functions

1. Potentialism: The Basic Outlines of Vetter's Account of Metaphysical Possibility

In a body of work that stretches back to her 2010 DPhil Thesis entitled "Potentiality and Possibility", Barbara Vetter has developed and defended a broadly Aristotelian account of metaphysical possibility in terms of potentiality.¹ A potentiality, for Vetter, is a localized kind of possibility, in the sense that a potentiality (e.g., the potentiality possessed by a fragile glass vase to break under certain conditions) resides in an object or a plurality of objects, whereas a possibility (e.g., the possibility that there might be talking donkeys) is a general fact about how the world might be. Potentiality, in Vetter's account, functions as a primitive and as the *explanans*, rather than the *explanandum*, in her theory of modality.

Vetter begins with a picture of the world as containing objects and properties; certain among these properties are abilities and dispositions which concern what objects *can* do. Any such property, for Vetter, is a potentiality possessed by an object or a plurality of objects. Taking as her starting-point the notion of an ability or disposition as it is employed in our ordinary and scientific discourse, Vetter sets

¹ Unless otherwise noted, when I speak of "possibility", I have in mind *metaphysical* possibility, rather than, say, epistemic or deontic possibility, since metaphysical possibility is the target of Vetter's account. Similarly, when I turn to "necessity", below, I have in mind metaphysical necessity.

out to develop a generalized notion of potentiality that is sufficiently powerful to account for all the possibilities we might expect a theory of modality to capture.² The first step in Vetter's account is to recognize that *individual* objects possess certain *intrinsic* potentialities (e.g., the potentiality possessed by a child to grow taller). In addition, however, pluralities of objects may also *jointly* possess intrinsic potentialities: for example, the plurality consisting of John and Mary jointly possesses the intrinsic potentiality to marry;³ and the plurality consisting of a key and a door jointly possesses the intrinsic potentiality for the key to open the door.⁴ Intrinsic potentialities that are jointly possessed by pluralities of objects, in turn, serve to ground *extrinsic* potentialities that are possessed by objects individually. To illustrate, the extrinsic potentiality possessed individually by Mary to marry John is grounded in the intrinsic joint potentiality to marry possessed by the plurality consisting of John and Mary;⁵ the key's extrinsic potentiality to open the door is grounded in the intrinsic joint potentiality possessed by the plurality consisting of the key and the door together to the effect that the key opens the door.⁶ The final step that is needed in order for Vetter to arrive at a sufficiently general notion of potentiality that, in her view, is able to match the logical properties of possibility is to extend the notion of potentiality to include *iterated* potentialities, i.e., potentialities to acquire further potentialities. For example, someone who has not yet learned how to play the violin nevertheless has an iterated potentiality to play the violin, if she has the potentiality to acquire the potentiality to play the violin.⁷ Similarly, water, while in a fluid state, has an iterated potentiality to break, since it has the potentiality to turn into ice and, once frozen, it has the potentiality to break.⁸

With this apparatus in hand, Vetter now has what she needs to argue that all possibilities can be anchored in the potentialities (i.e., generalized abilities and dispositions) of objects. The relevant notion of potentiality, as we have seen, includes intrinsic potentialities possessed individually or jointly by objects or pluralities of objects; extrinsic potentialities that are grounded in intrinsic potentialities jointly possessed by pluralities of objects; as well as iterated potentialities, i.e., potentialities to acquire further potentialities. Given this broad conception of potentiality, Vetter offers the following analysis of possibility in terms of potentiality (where "p" stands for a proposition): it is possible that $p =_{\text{def}}$ something (i.e., an object or a plurality of objects) has an iterated (or non-iterated) potentiality for it to be the case that p.⁹ For example, it is possible for a fragile glass vase to break under certain conditions just in case the glass vase has an iterated (or non-iterated) potentiality to break under these conditions.

² See in particular Vetter (2015); the broad outlines of her approach are helpfully summarized in Vetter (2022).

³ Vetter (2015), 113 f.

⁴ Vetter (2015), 123.

⁵ Vetter (2015), 198.

⁶ Vetter (2015), 123.

⁷ Vetter (2015), 135.

⁸ Vetter (2015), 136.

⁹ Vetter (2015), 18.

2. The Semi-Duality of Potentiality and Non-Modal Essence

If successful, Vetter's approach thus promises to yield an account of possibility in terms of iterated potentiality. But possibility is the dual of, i.e., interdefinable with, necessity in the following way: p is possibly the case if and only if it is not necessarily the case that not- p ; and p is necessarily the case if and only if it is not possibly the case that not- p . Assuming that Vetter's approach succeeds in capturing possibility, it therefore also yields an account of necessity indirectly, given that necessity and possibility are interdefinable. Suppose, for example, that it is necessarily the case that Socrates is human. Given Vetter's account, this state of affairs will turn out to be equivalent to the following: it is not the case that some object or plurality of objects has an iterated (or non-iterated) potentiality for Socrates not to be human. Furthermore, suppose that it is not necessarily the case that the glass vase does not break (i.e., it is possible that the glass vase breaks); as noted above, this state of affairs, on Vetter's account, obtains just in case some object or plurality of objects possesses an iterated (or non-iterated) potentiality for it to be the case that the glass vase breaks.

An interesting question now arises as to how Vetter's potentiality-based account of possibility relates to alternative approaches which start with non-modal essence and propose to analyze necessity in terms of essence.¹⁰ Such approaches also situate themselves within a broadly Aristotelian tradition, dating back to Aristotle's *Posterior Analytics*, and therefore share with Vetter the basic assumption that necessity and possibility are derived, rather than primitive, notions within a theory of modality. Given the interdefinability of necessity and possibility, one might expect that an essence-based account of necessity and a potentiality-based account of possibility merely provide two alternate routes to the same destination, viz., a theory of the derived modal notions of possibility or necessity. This dialectical hypothesis gives rise to the following questions. Do essence-based accounts of necessity and Vetter's potentiality-based account of possibility in fact lead to the same result, viz., a single derived notion of necessity that is interdefinable with possibility or vice versa? And does each approach independently have the ability to reach its desired goal without having to rely on the primitive notion utilized by the other?¹¹

¹⁰ See especially Fine (1994), (1995a), (1995b), (1995c). Other contemporary neo-Aristotelians who have gravitated towards an approach according to which essence is not reducible to modality include for example the following: Gorman (2005); Hale (2015); Koslicki (2012a), (2012b), (2013), (2018), (2020a), (forthcoming-a), (forthcoming-b); Lowe (1994), (1998), (2006), (2007), (2008), (2009), (2012), (2013); Oderberg (2007), (2011); Tahko & Lowe (2020). The contrasting model, which does take essence to be reducible to modality, dominated the metaphysical landscape for many decades and includes for example Forbes (1985), Lewis (1986), Mackie (2009), and Plantinga (1974).

¹¹ These remarks give the impression that the essentialist's program of formulating an essence-based account of necessity has already been completed. However, as I argue in Koslicki (2012a), (2012b), (2013), (forthcoming-a), (forthcoming-b), the task of explaining how the *de re* necessary truths follow from essential truths is by no means finished and, until this work is done, essentialism still contains an important lacuna. In this respect, Vetter's potentialism perhaps has an advantage over essentialism in being further along in fulfilling its promise to derive modality from its preferred primitive notion.

Vetter (2015) already takes up the question of how her own potentiality-based account of possibility interacts with essence-based accounts of necessity. In this context, Vetter construes the term, “modal”, in a wide sense which includes possibility, necessity, essence, dispositions, and laws of nature as part of a single family of modal notions.¹² Vetter notes that essence-based accounts of necessity and her own potentiality-based account of possibility proceed in an analogous fashion, in the sense that both begin with a localized notion (viz., potentiality or essence) that is taken to reside in objects or pluralities of objects and propose to give an analysis of a non-localized notion (viz., possibility or necessity), which concerns general facts about how the world might be or must be.¹³ At the same time, potentiality and essence, in Vetter’s view, are not quite as closely related to one another as possibility is to necessity. For consider the following attempt to define a notion of potentiality (viz., “E-potentiality”) as the dual of essence: an object (or plurality of objects) has an E-potentiality for it to be the case that *p* if and only if it is not the case that it is part of the essence of the object (or plurality of objects) that not-*p*.¹⁴ To illustrate, a fragile glass vase has the E-potentiality to break under certain conditions if and only if it is not part of the essence of some object or plurality of objects that the glass vase does not break under these conditions. Vetter argues that E-potentiality, defined in this way as the dual of essence, does not give rise to the same notion of potentiality as that which is operative in Vetter’s own account of possibility.¹⁵ In particular, Vetter’s arguments against the interdefinability of essence and potentiality target the formal properties of E-potentiality which, in Vetter’s view, are not well-suited to yielding an account of possibility.¹⁶

The question of how essence and potentiality interact is taken up again in Vetter (2021). There, Vetter argues that, although essence and potentiality are not duals (i.e., interdefinable), the two notions are nevertheless closely related in at least

¹² Vetter (2015), 1, fn. 1.

¹³ Vetter (2015), 3.

¹⁴ Vetter (2015), 168 ff.

¹⁵ Vetter (2015), 166–168; 170–182.

¹⁶ More specifically, Vetter argues that, assuming the logic of essence set out in Fine (1995c), E-potentiality does not validate the two principles, “CLOSURE” and “NON-CONTRADICTION”, which are respected by Vetter’s own notion of potentiality. According to CLOSURE, potentiality is closed under logical equivalence, i.e., if being *F* is logically equivalent to being *G*, then having a potentiality to be *F* is logically equivalent to having a potentiality to be *G* (Vetter (2015), 170 ff). According to NON-CONTRADICTION, nothing has a potentiality to be such that a contradiction holds (Vetter (2015), 180 ff). The basic difficulty, according to Vetter, is that E-potentiality concerns only what is compatible with matters that directly pertain to an object’s essential nature; but in order to arrive at a notion of potentiality that has the right formal profile to yield an account of possibility, a wider notion is needed which can outrun the objectual content that directly pertains to an object’s essential nature. To illustrate, a notion of potentiality that is powerful enough to capture possibility must allow us to say, for example, that every object possesses potentialities to be such that any other object possesses any tautological potentiality, e.g., that a tomato’s being red implies, as a matter of logic, the tomato’s being such that Doris is dancing or not dancing (Vetter (2015), 172); and that Socrates’ both being a philosopher and not being a philosopher is ruled out by Plato’s essence, even though Socrates does not directly pertain to Plato’s essential nature (Vetter (2015), 181).

one direction, namely via a relation Vetter dubs “*semi-duality*”. If potentiality and essence were duals, then the presence of a potentiality for p’s being the case in an object or plurality of objects, X, would have to go along with the absence of a contravening essential property to the effect that not-p is the case; and, equivalently, the presence of an essential property in X for p’s being the case would have to go along with the absence of a contravening potentiality possessed by X for not-p’s being the case. Thus, the duality of essence and potentiality can be stated in terms of the following two logically equivalent conditions, (a) and (b) (where “X” is treated as a plural variable ranging over either individual objects or pluralities of objects):

Duality:

- a) X have a potentiality for p to be the case if and only if it is not true in virtue of X’s essence that not-p.
- b) It is true in virtue of X’s essence that p if and only if it is not the case that X have a potentiality for not-p to be the case.¹⁷

As Vetter brings out by means of a series of counterexamples, the entailment in question from the absence of an essential property to the presence of the contravening potentiality or, equivalently, from the absence of a potentiality to the presence of a contravening essential property does not in fact hold in all cases.¹⁸ First, potentiality is sensitive to time in a way that essence is not. To illustrate, while a person at a young age can possess the potentiality to become a child prodigy and then lose this potentiality later in life, essence is not similarly time-sensitive: if it is part of Socrates’ essence to be human, then it is so at all times at which Socrates exists.¹⁹ Secondly, even though distinctness from Plato is not part of Socrates’ essence (since Plato presumably does not directly pertain to Socrates’ essential nature), the absence of an essential property (distinctness from Plato) in this case does not go along with a contravening potentiality possessed by Socrates to be (or to become) identical to Plato. Thirdly, even though existence is not part of the essence of a contingently existing object like Socrates, the lack of an essential property (existence) here again does not point to the presence of a contravening potentiality for non-existence possessed by contingently existing objects. (The putative potentiality for non-existence, in this context, should be construed not as the potentiality to *cease* to exist, which is in fact possessed by contingently existing objects, but rather as either the potentiality to be in a continued state of non-existence or as the potentiality never to have existed.) In order for an object to manifest a potentiality it possesses, as Vetter notes, the object in question must have existed at least at some time; but in the case of the putative potentiality for

¹⁷ Vetter (2021), 837.

¹⁸ Vetter (2021), 837–41.

¹⁹ A further difference between potentiality and essence is that the former is a notion that comes in degrees, while the latter is not. However, this contrast, so Vetter notes, does not in itself indicate that the two notions are not interdefinable, since we may focus on potentialities that are possessed by objects to *any* degree (Vetter (2021), 837).

non-existence, no bearer would be available at any time to manifest the putative potentiality for non-existence.

In light of these counterexamples, Vetter concludes that essence and potentiality are not duals. The counterexamples just considered, however, only affect one direction of the biconditionals stated above in (a) and (b), viz., the right-to-left direction: contrary to the right-to-left direction of (a), the fact that it is not part of Socrates' essence to be distinct from Plato does not entail that Socrates has the potentiality to be (or to become) identical to Plato; and, contrary to the right-to-left direction of (b), the fact that Socrates lacks a potentiality for non-existence does not license us to conclude that existence is part of Socrates' essence. While these considerations should lead us to reject the full-fledged duality of potentiality and essence, Vetter argues that they do not call into question the left-to-right-direction of (a) and (b): in accordance with the left-to-right direction of (a), the fact that an object or plurality of objects, X, possesses a potentiality for p to be the case does lead us to expect that p's being the case is not prohibited by X's essence; and, in accordance with the left-to-right direction of (b), the fact that p's being the case is part of X's essence can reasonably be taken to indicate the absence of a contravening potentiality possessed by X for not-p's being the case. In other words, what remains untouched by Vetter's counterexamples is the property she labels "*semi-duality*":

Semi-Duality:

- a) If X have a potentiality for p to be the case, then it is not true in virtue of X's essence that not-p.
- b) If it is true in virtue of X's essence that p, then it is not the case that X have a potentiality for not-p to be the case.

Although essence and potentiality turn out not to be interdefinable, in Vetter's view, semi-duality nevertheless preserves a central link between the two notions: namely the idea that essence constrains potentiality; or, in other words, that nothing possesses a potentiality that goes against its essence. To illustrate, following (a), if a child has the potentiality to grow taller, then we may safely assume that growing taller does not conflict with anything that is prescribed by the child's essence; and, following (b), if Socrates' essence dictates that he is human, then we can expect that Socrates lacks a contravening potentiality not to be human.

The fact that essence and potentiality turn out to be mere semi-duals, rather than full-fledged duals, leads Vetter to reject a position she calls "*Combination*", according to which an essence-based account of necessity should be combined with a potentiality-based account of possibility, or vice versa. Such a position, in Vetter's view, has two main disadvantages. First, it fails to account for the interdefinability of possibility and necessity, since essence and potentiality, viz., the two primitive notions utilized by essentialism and potentialism, respectively, are themselves not interdefinable. Secondly, combining essentialism with potentialism, in Vetter's view, leads to an objectionable form of overdetermination: since facts concerning what is possible or necessary for an object or a plurality of objects are already supposed to be fully accounted for by invoking either potentialism or

essentialism alone, without the help of the other, supplementing one approach with the other would seem to result in the proliferation of redundant grounds for all derivative modal truths. To illustrate, if the derived modal truth that it is possible for a fragile glass vase to break is already fully accounted for by invoking the glass vase's potentiality to break, then an essence-based account which explains why it is not necessarily the case that the glass vase does not break is simply not needed. Similarly, if the derived modal truth that Socrates is necessarily human is already fully accounted for by appeal to the fact that Socrates is essentially human, then a potentiality-based account which explains why it is impossible for Socrates not to be human strikes us as equally superfluous.

Given the apparent disadvantages associated with Combination, Vetter (2021) opts for a narrower construal of the family of modal notions compared to the wide construal she advocated earlier.²⁰ Vetter (2021) instead recommends that essence and potentiality be regarded as belonging to two distinct families: the (narrower) family of modal notions which is now taken to include potentiality, disposition, ability, possibility, and necessity, but not essence; and a second family of non-modal notions which includes essence, along with grounding, ontological dependence, and identity, but not potentiality. The resulting picture is one according to which essentialism and potentialism are competitors, and not allies, in the pursuit of a theory of derived modality. According to the approach Vetter favors, essence, as a non-modal notion, provides constraints on potentiality from outside the family of modal notions; but potentiality is more well-suited than essence as a primitive notion for an account of derived modality, viz., one which targets possibility directly and necessity only indirectly (via interdefinability). As a result, Vetter rejects the essentialist's competing claim to the effect that essence is to be preferred as a primitive notion in an account of derived modality, viz., one which targets necessity directly and possibility only indirectly (via interdefinability).

3. Towards Combination: Essentialism and Potentialism as Allies in a Theory of Modality

Despite the attractiveness of Vetter's approach and the overall plausibility of her arguments, I would like to advance some considerations, at least briefly and in outline, in support of Combination over Vetter's "separatist" picture. According to this alternative approach, essentialism and potentialism should be regarded as allies, rather than as competitors, in a theory of derived modality, since both notions are needed in order to give a full account of necessity and possibility. Neither the interdefinability of necessity and possibility nor the threat of overdetermining the grounds of derived modal truths should give us reasons to abandon Combination.

The fundamental reason for favoring Combination over Vetter's Separatism is that essentialism and potentialism do not, and cannot, provide two independent alternative routes to the same destination, viz., a theory of derived modality. Rather,

²⁰ Vetter (2015), 1, fn. 1.

essence and potentiality are *interdependent* in at least the following two respects. First, for reasons we have already encountered above, *potentiality depends on essence*: as was brought out by our earlier discussion of semi-duality, essence constrains potentiality, in the sense that nothing possesses a potentiality that goes against its essence. Essence thus sets the boundaries that determine which potentialities can or cannot be possessed by an object or a plurality of objects. To illustrate, given the hypothesis that it is part of Socrates' essence to be human, any potentiality that is incompatible with this essential property is thereby ruled out by Socrates' essence. For example, on the assumption that nothing can be both a plant and essentially human, it is thus incompatible with Socrates's essence that Socrates possesses the potentiality to be or to become a plant. If the interdependence between essence and potentiality were exhausted by this one-way connection, one might be tempted to conclude that essence is in fact the more basic notion and should therefore be preferred over potentiality as a primitive in a theory of derived modality. In fact, however, essence and potentiality also stand in a second dependence-relation which points in the other direction: in at least some cases, or so I want to argue, it is also plausible to think that *essence depends on potentiality*, in the sense that to state the essence of an object or a plurality of objects, one must make reference to certain of their potentialities. In such cases, the essence of an object or a plurality of objects includes certain of their potentialities.

To illustrate, consider the domain of artifacts and, in particular, a sub-kind of artifacts we might call "technical artifacts": this category includes, for example, tools (e.g., screwdrivers) which help us solve practical problems or perform actions (e.g., tightening or loosening screws) that are required to reach certain desired goals (viz., in this case, that a screw be tightened or loosened). In such cases, it is plausible to think that what it is to be the kind of artifact in question is defined by appeal to the artifact's *function*. To illustrate, on the assumption that the function of a screwdriver is to tighten and loosen screws, what it is to be a screwdriver is to be the kind of artifact whose function it is to tighten and loosen screws. Notoriously, the attribution of functions to artifacts, as is familiar as well from the biological realm, gives rise to a certain kind of *normativity*, which in turn makes room for the phenomenon of *malfunction*: thus, a screwdriver, for example, is a kind of artifact which is *supposed to* be able to perform the function of tightening and loosening screws. A *malfunctioning* screwdriver, however, is still a screwdriver, even though it is in its current state unable to be employed by a competent user to tighten or loosen screws. Typically, though, such objects can be repaired or otherwise modified to regain their ability to carry out their kind-associated function.²¹

²¹ I cannot in the present context do justice to the large and complex literature on artifacts, artifact-functions, and biological functions; but see, for example, Baker (2007); Cummins (1975); Dipert (1993); Elder (2007); Evnine, (2016); Kornblith (2007); Margolis & Laurence (2007); Millikan (1984); Preston (2013); and Thomasson (2003), (2007). I do not assume that each artifact has only a single function: Aspirin, for example, is now recognized as having both the function of being a pain-killer and the function of being a blood-thinner, even though it was originally associated with only a single function. In this case, it is our epistemic situation vis-à-vis the actual and potential capacities associated with Aspirin that has changed, and not what the artifact can in fact be used to accomplish. In the case of some artifacts, e.g., arguably

Artifact-functions precisely fit the profile of potentialities that are possessed by objects or pluralities of objects independently of whether or not they are manifested. A well-functioning screwdriver, for example, possesses the potentiality to be employed by a competent user for the purpose of tightening or loosening screws, even if it is in fact never used in this way. An artifact's function is a potentiality possessed by the artifact in question which occupies a privileged role, viz., by virtue of its being included in the artifact's essence, as compared to other potentialities that are possessed by the same artifact. To illustrate, a screwdriver can also be used as a weapon; but this potentiality merely gives rise to an accidental use (one among many) to which a screwdriver may be put and is not plausibly taken to be part of the screwdriver's function. A similar distinction between functions and accidental uses or by-products is required as well in the case of biological function: for example, the function of a human nose must be distinguished from its accidental use as a convenient resting place for glasses.²² Given the phenomenon of malfunction, the thesis that an artifact's function is a potentiality that is part of the artifact's essence must be construed in a sufficiently broad manner to include not only non-iterated, but also *iterated*, potentialities. For example, a malfunctioning screwdriver, in its present state, lacks the non-iterated potentiality to be employed by a competent user to tighten or loosen screws; but it does possess an iterated potentiality to acquire the potentiality to be so used, if it is appropriately repaired or otherwise modified. The case of technical artifacts, given my proposal, thus furnishes us with an illustrative example in which an iterated or non-iterated potentiality is part of the essence of an object or a plurality of objects, namely when the potentiality in question is (or is included in) the artifact's function.

In fact, the realization that the essences of some objects or pluralities of objects include certain of their potentialities should not come as a complete surprise, considering the Aristotelian background of these ideas. As Aristotle argues in *De Anima* II, what it is to be a living organism of a certain kind, viz., a plant, a non-human animal, or a human animal, is defined in terms of certain of the potentialities that are associated with the souls of the living organisms in question: nourishment and growth, in the case of plants; locomotion and perception, in the case of non-human animals; and practical and theoretical thought, in the case of human animals. Thus, to state the essence of, or what it is to be, a living organism of a certain kind, for Aristotle, we must refer to those potentialities that are definitive of what it is to be a plant, a non-human animal, or a human animal, respectively. Potentiality (*dynamis*) is paired by Aristotle not with essence (*to ti ēn einai*), but with actuality (*energeia* or *entelecheia*); and these two notions, potentiality and

artworks, the attribution of functions, if possible at all, has been said to be at least less straightforward and is not centrally focused on helping human agents solve practical problems and perform certain related actions. However, a function-based conception of artworks is currently being developed by Enrico Terrone, who argues that the function of artworks is to elicit certain kinds of experiences in their viewers. For a more detailed discussion and development of my own approach to artifacts, see Koslicki (2018), Ch. 8; as well as (forthcoming-c), (forthcoming-d).

²² Wakefield (2005).

actuality, are not plausibly be taken to be duals.²³ Rather, an actuality (or activity) is closer to what Vetter calls a “manifestation” of a potentiality. Metaphorically speaking, if we think of a potentiality as being associated with an “on”/“off” switch, then an actuality (or manifestation) is what comes about when the switch associated with a potentiality is turned to its “on” position and the potentiality is exercised, activated or manifested. But a potentiality does not disappear simply because its associated “on”/“off” switch remains in the “off” position.

As Aristotle argues in *De Anima* II.1, for example, a single state, capacity, disposition, or ability can simultaneously be both actual (in the sense of “first actuality”) and potential (in the sense of “second potentiality”). To illustrate, one and the same person, at a single time, can be said both to speak French actually (and not merely potentially) and to speak French merely potentially (but not actually), if for example she has already learned how to speak French but is not at that very moment exercising her ability to speak French. It is only under special circumstances that an actuality is “pure”, in the sense that it is not paired with a corresponding potentiality (viz., in the case of the Unmoved Mover); or that a potentiality is “pure”, in the sense that it is not paired with a corresponding actuality (e.g., in the case of prime matter, the infinite, or the void). Otherwise, when applied to beings that are capable of undergoing change, something’s being actually the case (e.g., water’s being heated by fire) merely represents an end-point in a series of transitions brought about by the interaction of active capacities (e.g., the active capacity of fire to heat water) and passive capacities (e.g., the passive capacity of water to be heated by fire), provided that nothing interferes or prevents these changes from taking place (cf., *Metaphysics* Θ.1 – 5).

We have thus encountered two arguments in favor of Combination. In particular, the thesis that essence depends on potentiality, in the sense that the essences of some objects or pluralities of objects include certain of their potentialities, gains plausibility by considering, first, the case of artifact-functions and, secondly, the case of living organisms, construed along Aristotelian lines. But potentiality also depends on essence, as was brought out by our earlier discussion of semi-duality, since essence constrains potentiality: nothing can have a potentiality that goes against its essence. Thus, given the interdependence of essence and potentiality, Combination should be preferred over Vetter’s Separatism: essentialism and potentialism do not in fact provide independent alternative routes to the same destination, viz., a theory of derived modality. Rather, essentialism and potentialism must

²³ If potentiality and actuality were duals, then the following conditions would have to hold (stated here, for the sake of simplicity, in terms of properties rather than propositions): (a) X is potentially F if and only if it is not the case that X is actually not-F; and (b) X is actually F if and only if it is not the case that X is potentially not-F. Contrary to the left-to-right direction of (a), a block of marble can be both potentially statue-shaped and actually non-statue-shaped. Contrary to the left-to-right direction of (b), a block of marble can be both actually statue-shaped and potentially non-statue-shaped. Duality also fails, for example, in the case of rational capacities which, in Aristotle’s view, endow their bearers with the ability to bring about opposing outcomes, e.g., a doctor’s medical knowledge enables him both to heal and to harm his patients. Thus, a malicious doctor, for example, can potentially heal but actually harm (i.e., not heal) his patients, and vice versa.

work together as allies, and not competitors, in pursuit of a full account of necessity and possibility.

Given this dialectical situation, we need not be concerned by Vetter's worry that Combination gives rise to an objectionable overdetermination of the grounds of all derived modal truths. For if at least some essential truths make reference to potentialities and, conversely, truths concerning potentialities are constrained by facts about essences, essentialism and potentialism individually are not able to generate full grounds for all derived modal truths without making reference to the apparatus utilized by the other framework. This consideration is furthermore supported by what Vetter calls the "explanatory challenge", namely the observation that essentialism and potentialism seem precisely to complement each other as far as their natural sphere of application is concerned.²⁴ Some derived modal truths, viz., in particular necessary truths concerning mathematical, logical, or sortal relations, seem to be much more straightforwardly explained by reference to essentialism than by appeal to potentialism (e.g., "Necessarily, 2 is a prime number"; "Necessarily, a conjunction is true if and only if both of its conjuncts are true"; or "Socrates is necessarily human"). In other cases, by contrast, the situation is exactly reversed: potentialism seems to have a much easier time than essentialism, for example, with judgements concerning how objects or pluralities of objects are disposed to behave in ordinary or scientific contexts (e.g., "Salt dissolves in water"; or "The glass vase might break if it falls to the ground"). The fact that potentialism and essentialism thus strike us as having not just different but complementary strengths and weaknesses provides further support for Combination, i.e., the position that both frameworks are needed for a full account of derived modality.

Finally, Vetter's concern that combining potentialism and essentialism leaves the interdefinability of necessity and possibility unexplained also need not deter us from accepting Combination. Potentialism and essentialism together aim to reach a single goal, namely to provide an account of derived modality in terms of the primitive notions of essence and potentiality. The fact that the central target of a theory of derived modality, viz., necessity and possibility, can be stated in two interdefinable ways does not in itself stand in need of explanation. For comparison, consider the case of mereology: a theory of parts and wholes simultaneously targets all the mereological notions that are definable in terms of whichever notion is chosen as a primitive (e.g., parthood, overlap, disjointness, mereological sum, etc.); the fact that these mereological notions are interdefinable, however, is not itself something that needs to be explained by a theory of parts and wholes. Similarly, a combined theory of derived modality, which takes as basic both essence and potentiality, aims to explain the interdefinable derived modal notions of possibility and necessity; but the fact that possibility and necessity are interdefinable does not call for an explanation any more than the fact that overlap, disjointness, parthood, and mereological sum are interdefinable.

²⁴ Vetter (2021), 852 ff.

To conclude, the preceding considerations suggest that both necessity and possibility ought to be viewed as belonging to a single family of derived modal notions, a full account of which requires an appeal to both essence and potentiality. Both of these primitive notions in turn should be taken to belong to a single family of non-modal notions which in addition may also be plausibly regarded as including ontological dependence and identity. As a grounding pluralist and skeptic, I am not convinced that grounding belongs into either the category of derived modal notions or the category of primitives needed to give an account of derived modality.²⁵ This question, however, of what is and is not to be included in these two families of basic non-modal notions and their derived modal counterparts is of course a topic for a different occasion.

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²⁵ cf. Koslicki (2015), (2020b).

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