Power Collapse

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Abstract

What distinguishes things that are endowed with agency from those that lack it? Some scholars in the Aristotelian tradition suggest a distinction in terms of two kinds of powers: agents have both one-way and two-way powers; non-agents, by contrast, have only one-way powers. I call this view *Aristotelianism*. In this paper, I examine different ways to think of one-way and two-way powers. First, I argue that the conditional analysis faces a problem that resists well-known repair strategies for conditional analyses of dispositions and abilities. Second, I argue that a prominent alternative to the conditional account, as well as variations of it, yield a certain form of *Megarianism* when combined with Aristotelianism: for non-agents, power collapses into actuality—that is, non-agents have the power to do something iff they manifest it. This might not be a knock-down argument against Aristotelianism, but does call for a reinvestigation of one-way and two-way powers.

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1 Introduction

Clearly, some things possess agency, while others do not. But what accounts for this difference?[1] This question has been the subject of extensive philosophical debate for centuries, and a wide range of answers has been proposed. Among these, some argue that agency is closely tied to freedom; others maintain that it is best understood in terms of intentionality. Scholars in the Aristotelian tradition offer a different perspective: they claim that agents possess both one-way and two-way powers, whereas non-agents have only one-way powers. I will refer to this view as *Aristotelianism*.[2]

In this paper, I examine several ways of understanding one-way and two-way powers, and argue that each approach encounters serious difficulties. First, I show that the conditional analysis proposed in the literature faces a problem that resists well-known repair strategies typically used for conditional analyses of dispositions. Second, I argue that a prominent alternative—along with several of its modifications—leads to a surprising consequence when combined with Aristotelianism: non-agents have the power to do something if and only if they are doing it. More precisely, they possess a power only insofar as it is being successfully manifested. Put yet another way, for non-agents, power collapses into actuality. This is a restricted form of what, following Aristotle (Metaphysics IX.3), I will call *Megarianism*.

[1] I am indebted to the two anonymous reviewers of this journal for their careful reading and very helpful suggestions.

[2] Aristotelianism is endorsed by Taylor (1966), Hart (1968), Strawson (1986), Geach (2000), Alvarez (2009; 2013), Steward (2012; 2020), and Frost (2013; 2020). Some of these Aristotelians work with a very broad notion of an agent. For them, the question is not how to account for the difference between agents and non-agents, but how to account for the difference between rational and non-rational agents, or free and unfree agents. Two-way powers have also been used to characterize the will. See, e.g., Lowe (2008; 2013).

While Megarianism may not be untenable, it seems unappealing, from both a metaphysical and a linguistic perspective, even when restricted to non-agents.[3] Aristotelians typically regard powers as inherently modal in nature. It should therefore be possible, even for a non-agent, to possess a power without manifesting it. Conversely, it would be strange if a non-agent gained or lost its power to do something merely in virtue of whether it is currently doing it. Moreover, powers can be attributed or denied using modal particles such as 'can' and 'cannot'—as in 'Water can dissolve sugar' or 'Water cannot dissolve iron'. We would expect this power-related flavor of 'can' to share at least some basic properties with other modal flavors of 'can', such as circumstantial, epistemic, or deontic 'can'. One such feature is that a sentence of the form 'x can ϕ' may be true for any x, whether agent or a non-agent, even if x is not currently ϕ-ing—and analogously, 'x cannot ϕ' may be false even if x is not currently ϕ-ing.[4] One might even say that if Megarianism were true, non-agents would not possess any powers worth the name, thereby undermining the central Aristotelian claim that both agents and non-agents have powers.[5]

In sum, these problems cast doubt on whether Aristotelianism remains a viable position. The notions of one-way and two-way powers are technical and in need of further clarification. In the absence of a tenable account, the prospects for analyzing the difference between agents and non-agents in terms of these powers appear bleak.

The paper is structured as follows. In section 2, I provide some background of the discussion to follow. In section 3, I present a simple account of one-way and two-way powers in terms of conditionals and argue that depending on how we interpret the conditionals, it either undergenerates or overgenerates one-way powers. In section 4, I discuss an alternative proposal according to which one-way and two-way powers are to be analyzed in terms of both opportunities and abilities. I show that given this proposal Aristotelianism leads to a restricted form of Megarianism (in the following just *Megarianism*): for non-agents, power collapses into actuality. In section 5, I examine two natural modifications of the account—the simple opportunity account and the general ability account—and argue that they, too, lead to the indicated power collapse. In section 6, I discuss ways to avoid Megarianism. In section 7, I conclude.

2 Background

I begin by providing some background for the discussion to come. The distinction between one-way and two-way powers goes back to Aristotle, but the labels are medieval. In his Nicomachean Ethics, 1113b6, Aristotle claims that what is distinctive about the power to act—a presumed two-way power—is that 'where it is in our power to act it is also in our power not to act', and in his Metaphysics, 1048a6-13, he notes:

> It follows that as for potencies of the latter kind [i.e. one-way powers], when the agent and the patient meet in accordance with the potency in question, the one must act and the other be acted upon; but in the former kind of potency [i.e. two-way powers] this is not necessary, for whereas each single potency of the latter kind is productive of a single effect, those of the former kind are productive of contrary effects, so that if the rational powers were under the same necessity, one potency would produce at the same time contrary effects. But this is impossible.

[3] Aristotle himself agrees: he explicitly argues against 'modal collapse'—the reduction of possibility to actuality (Fine, 2009, 994).

[4] Portner (2009, 197), e.g., notes that volitional modals—his term for the 'can' of ability and opportunity—'are modals in the most clear semantic sense—they allow us to make statements which depend on non-actual situations'.

[5] I owe this last observation to an anonymous reviewer for this journal.

In this paper, I discuss different ways to think of the two kinds of power that are broadly in line with Aristotle's remarks.[6]

Throughout the paper, and in line with the existing debate, I will assume that, on the relevant understanding, powers—whether one-way or two-way—are abilities, capacities, or potencies. For example, the power of the water in my drinking bottle to dissolve copper sulphate—a one-way power, following Steward (2020)—is an ability of the water. Likewise, my power to move my arm—a two-way power, following Alvarez (2013)—is one of my abilities.

I propose three desiderata for an adequate account of one-way and two-way powers. The first and most obvious desideratum is that the account should yield correct predictions about paradigm cases of the two types of powers, as well as about those cases we intuitively group with them. For example, an adequate account should predict—following Steward—that the water in my drinking bottle has the one-way power to dissolve copper sulphate, and—following Alvarez—that I have the two-way power to move my arm.[7]

The second desideratum is that the account of one-way and two-way powers should be explanatory (though not necessarily reductive). Some contributors to the debate distinguish the two types of powers in terms of whether something is 'up to' someone or something, or whether someone or something can 'settle' things (see, most prominently, Steward, 2012; 2020 and Alvarez (2013)). Roughly, the idea is that for any x (whether agent or non-agent), if it's up to x whether x ϕs, or if x can settle whether x ϕs, x has the two-way power to ϕ; if it's not up to x whether x ϕs, or if x cannot settle whether x ϕs, x at best has the one-way power to ϕ. These characterizations may have intuitive appeal, but they are not particularly explanatory. As we will see, proponents of Aristotelianism typically seek to analyze one-way and two-way powers in terms of more philosophically familiar notions—and I will follow their lead.

The third desideratum is that the account of one-way and two-way powers should be distinctive. As noted in the introduction, the literature offers numerous proposals for distinguishing agents from non-agents—appealing, for instance, to freedom, intentionality, or the difference between determined and undetermined actions (see, e.g., List (2019)). However, proponents of Aristotelianism typically present their view as an alternative to such approaches (see, e.g., (Alvarez, 2013, 101)), and I will follow their lead here as well.[8]

3 Conditional account

One natural way to draw the distinction between one-way and two-way powers is in terms of conditionals. Where x is an agent or non-agent:[9]

(One-Way-a) (i) $\Box$ (x has the one-way power to $\phi \leftrightarrow$ if x has the opportunity to ϕ, then x ϕs)

[6] See also Aristotle's Eudemian Ethics, 1223a4-7, as well as Aquinas, Summa Theologiae 1a 22e, 49, 4, who notes that 'some capacities can be realized in more than one way (*ad multa*)' while others 'can be realized in only one way (*ad unum*)'.

[7] The rough idea behind classifying these as a one-way and a two-way power, respectively, is this: the water's ability to dissolve copper sulphate is a one-way power because it must do so when the substance is placed in it; my ability to move my arm is a two-way power because it's not the case that I must move my arm when the opportunity arises. The precise explanation of why the former counts as a one-way power and the latter as a two-way power is the focus of this paper.

[8] I won't start from any assumption about how to individuate or how to count one-way and two-way powers. I consider my project to be orthogonal to the question of whether proponents of Aristotelianism can uphold the claim that powers are individuated by what they are powers to do and whether they can meet what Frost (2020, 1142) calls *Canonicalism*, the claim that 'all exercises of all powers are cases of doing what the power is properly specified as a power to do'.

[9] Because the principles that follow are meant as analyses, the biconditionals are stated as holding necessarily, rather than just materially.

(ii) □ (x has the one-way power to $\neg\phi \leftrightarrow$ if x has the opportunity to $\neg\phi$, then x $\neg\phi$s

(Two-Way-a) □ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow \neg$ (if x has the opportunity to ϕ, then x ϕs) $\wedge \neg$ (if x has the opportunity to $\neg\phi$, then x $\neg\phi$s))

Such a *conditional account*, as I call it, seems to be suggested by Alvarez (2013), who writes that 'one-way powers are characterized by the fact that when the conditions for their manifestation obtain, the power will be necessarily manifested' (p. 109) while two-way powers 'are characterized by the fact that when the conditions for the exercise of the power obtain, the power need not be manifested' (p. 102). She seems to take the conditions for the manifestation/exercise of the power to be the opportunity to manifest/exercise the power, since she goes on to deny that a two-way power is a conjunction of two one-way powers because this would predict that 'if an agent had the ability and opportunity to ϕ and also the ability and opportunity not to ϕ at t, [...] then the agent would both ϕ and not ϕ at t—[which] is impossible' (p. 109). Steward (2020, 354) similarly suggests that 'the key is to think of the 'two' ways [...] as ways things might proceed, given a situation in which an agent with a relevant two-way power is confronted with the opportunity to exercise it.'

Note that on this account, the one-way power to ϕ and the one-way power to $\neg\phi$ are distinct: while the former is characterized by the conditional that if x has the opportunity to ϕ, then x ϕs, the latter is characterized by the conditional that if x has the opportunity to $\neg\phi$, then x $\neg\phi$s. The two-way power to ϕ and the two-way power to $\neg\phi$, however, are the same (or necessarily co-occur). If neither of the indicated conditionals holds, x has both the two-way power to ϕ and the two-way power to $\neg\phi$.[10]

Note, furthermore, two important points regarding temporality. First, powers can be gained or lost over time. For example, while tied to a chair at time t, I have the one-way power—but not the two-way power—not to move my arm. Once freed from the chair at a later time t', I have the two-way power—but not the one-way power—not to move it.[11] Similarly, opportunities come and go over time. This raises the question of how temporality figures in the analyses above. I assume that, in all analyses, the temporal index of the power on the left-hand side is to be coordinated with the temporal index of the opportunity on the right-hand side. Second, I will restrict the analyses to temporally specific actions that are temporally coordinated with the relevant power. A more explicit formulation of (One-way-a i/ii) is thus the following: x has at t the one-way power to ($\neg$)ϕ at t iff, if x has at t the opportunity to ($\neg$)ϕ at t, then x ($\neg$)ϕs at t.[12] *Mutatis mutandis* for (Two-way-a).[13] For ease of exposition, I will leave all temporal relativizations implicit in what follows.

Initially, the conditional account seems plausible. If the water in my drinking bottle is given the opportunity to dissolve copper sulphate, it will dissolve it, while I might not move my arm in situations in which I have the opportunity to move it, and move it in circumstances in which I have the opportunity to not move it.

[10] The purely negative analysis of two-way powers as per (Two-Way-a) may seem too weak, but it can be modified so that it only gives a necessary condition of two-way powers. The problem to be presented below will arise all the same.

[11] I owe this example to an anonymous reviewer of this journal.

[12] For simplicity, I assume that t is a point in time rather than a time-span.

[13] Borrowing a distinction from the literature on the semantics and pragmatics of ability ascriptions (see, e.g., (Mandelkern et al., 2017, 303)), we can say that I restrict the analyses to *specific power ascriptions* of the type: the power at t to ϕ at t. The analyses remain silent on other kinds of specific power ascriptions, where the time of the power and the time of the action come apart (e.g., my power now to ride a bike tomorrow). They also remain silent on what we might call *generic power ascriptions* following the indicated literature (e.g., my power now to ride a bike). The problems I will raise are independent of whether and how the analyses are extended to cover these additional cases.

On closer inspection, however, a dilemma emerges. The conditionals in (One-Way-a) and (Two-Way-a) admit of multiple interpretations. Yet on any interpretation, some powers end up being misclassified.

Consider first the following strict interpretation of the conditional in question, suggested at various points by proponents of Aristotelianism:[14]

(1) In all possible situations, if x has the opportunity to ϕ ($\neg\phi$), then x ϕs ($\neg\phi$s)

This conditional seems too demanding for one-way powers—not only if we let the universal quantifier scope over all logically or metaphysically possible situations but also if we restrict the scope to all nomologically possible situations. My favorite flower vase has the one-way power to break, but it is not necessarily the case that if it has the opportunity to break, it breaks. Just a couple of days ago, it was presented with the opportunity to break—it fell off my dining table—but luckily stayed intact. Consider also situations in which my vase's one-way power to break is 'masked' (see, e.g., Johnston (1992), Bird (1998)) or 'finked' (see, e.g., Martin (1994))—for example, if it is wrapped in several layers of bubble wrap (a mask), or if it is under the watch of a protective hand, like Lewis's (1997) sorcerer who reinforces the vase's molecular structure whenever it's in danger of breaking (a fink). Either way, it might be that even when the vase has the opportunity to break, it stays intact.

Analogous problems arise for the following simple indicative and subjunctive conditionals:

(2) If x has the opportunity to ϕ ($\neg\phi$), x will ϕ ($\neg\phi$)

(3) If x had the opportunity to ϕ ($\neg\phi$), x would ϕ ($\neg\phi$)

Most scholars these days agree that (2) and (3) have some version of a *variably strict semantics* (see most prominently Lewis (1973), Stalnaker, 1975; 1981, Kratzer, 1981; 1986). With this in mind, assume we are in a world where one of the scenarios described above is realized: my vase falls and, either by pure chance, remains intact, or it stays intact because a mask or fink protects it from breaking.[15] Then the closest world(s) in which the vase falls are ones where it remains intact. So on the suggested kind of semantics, the conditionals would be false even though it seems the vase has the one-way power to break.[16]

One might question whether my vase truly had the opportunity to break in the cases I've described. For instance, if my dining table is not very tall or if the carpet underneath it is very soft, one might argue that my vase never had a genuine opportunity to break when it fell. Likewise, one might hold that my vase lacks the opportunity to break when a mask or a fink is in place to protect it.

I am skeptical that the very notion of an opportunity rules out that my vase is given the opportunity to break in the situations described. This seems especially clear in the case where the vase remains intact by pure chance, or because it has a 'spot of strength' or a 'reversed Achilles heel' (see Manley and Wasserman (2008) and Hájek (2020))—that is, a specific spot or area such that, when the vase falls on it, it survives the impact, despite being generally very fragile.[17] So let's

[14] See, e.g., the quotes by Alvarez given above, where necessity is plausibly taken to take wide scope over the conditional, as well as the quote from Aristotle's Metaphysics given in the introduction, where he talks about what 'must' be the case.

[15] For a detailed discussion of cases in which by pure chance a given disposition doesn't manifest, see Hájek (2020).

[16] A *constantly strict semantics* inherits the problems described above for (1). A material conditional semantics implausibly predicts that all things that never have the opportunity to ϕ have the one-way power to ϕ.

[17] If you think that a mask or fink deprives the vase from the opportunity to break, consider what, following Hájek (2020), we might call a 'mink': a mink is a chancy mask or chancy fink, i.e. something that keeps the vase from breaking only with significant probability (the bubble wrap might have holes or the sorcerer might flip a coin to decide whether to strengthen the molecular structure). In this case it seems that the vase *is* given the opportunity to break. Thanks to [redacted-a] for discussion.

instead look at two modifications of the conditionals that might be taken to avoid the indicated objection.

The first follows the 'getting specific' strategy discussed in the debate on dispositions (see, e.g., Manley and Wasserman (2008)). The idea is to make the antecedent of the relevant conditionals more specific by explicitly listing the conditions under which ϕ-ing will occur. In the case at hand, this would be something like falling from a height of more than 80 cm onto a surface at least as hard as a wooden floor, without being protected by bubble wrap or watched over by a caring sorcerer. However, as has also been emphasized in the debate on dispositions, it seems very hard to provide an exhaustive list of specific conditions such that, when they obtain, breaking follows (see, e.g., Manley and Wasserman (2008)). Even when falling from a height of more than 80 cm onto a surface at least as hard as a wooden floor, and without being protected by bubble wrap or watched over by the sorcerer, my vase might still remain intact: it might land on its stable rim, or some other mask or fink might intervene to prevent it from breaking. In some cases, it is even flat-out impossible to give an exhaustive list of sufficient conditions. Radioactive material, for instance, has the one-way power to emit radiation, but given the randomness of the process, there is no condition—simple or complex—that is sufficient for the emission of radiation.[18]

The second modification follows what might be called the 'getting general' strategy. Rather than specifying detailed conditions under which ϕ-ing occurs, this approach generalizes by enriching the antecedent of the relevant conditionals with a broad clause—for example, that there is no obstacle to ϕ-ing. But then there are two options: either the absence of obstacles to *x*'s ϕ-ing guarantees that *x* ϕs, or it does not. The first option trivializes the conditional: everything would have every one-way power because it is trivially the case that, necessarily, if *x* has the opportunity to ϕ and is guaranteed to ϕ, then *x* ϕs. The second option revives the problem from above. As mentioned, just a couple of days ago my vase fell (from a considerably high table to a considerably hard floor) and didn't break even though there was no obstacle to its breaking worth the name.

Consider then the following alternative interpretations of the conditionals in question, inspired by suggestions for analyses of dispositions:[19]

(4) In ideal or normal situations, if *x* has the opportunity to ϕ (¬ϕ), then *x* ϕs (¬ϕs)

(5) In a suitable proportion of situations, if *x* has the opportunity to ϕ (¬ϕ), then *x* ϕs (¬ϕs)

These conditionals seem too undemanding for one-way powers. I, for one, have the power to eat cookies, but this seems to be a two-way rather than a one-way power of mine. I can assure you, however, that in ideal or normal situations as well as in almost every situation, I eat cookies when given the opportunity. Not because I am a serious addict—for instance, I could do otherwise. It's just that I like cookies a lot and in all but very peculiar situations, I do not see a reason to abstain from eating them.[20]

Importantly, the case just presented poses a problem specifically for the claim that conditionals like (4) and (5) provide suitable analyses of one-way powers. It is not a problem for analyzing dispositions or abilities in terms of such conditionals. After all, I do possess the disposition and the ability to eat cookies. The issue is that, if we distinguish between one-way and two-way powers, the disposition or ability in question appears to be a two-way power rather than a one-way power.

[18] The intuition that radioactive material has the one-way power to emit radiation is shared by Lowe (2013) and Frost (2020) and is made plausible by the fact that 'Radioactive material can emit radiation', just like 'Water cannot emit radiation', has a volitional reading (compare 'Radioactive material is able to emit radiation' and 'Water is not able to emit radiation').

[19] See, e.g., Mumford (1998), on the one hand, and Manley and Wasserman (2008), on the other.

[20] For discussion of addiction and other disorders as well as Frankfurt- and Fischer-style cases, see Alvarez (2013, 122ff.).

So while conditionals like (4) and (5) may offer an adequate analysis of dispositions and abilities, they are ill-suited for capturing the nature of one-way powers.[21]

To summarize, no matter which interpretation of the conditionals we adopt, some powers are misclassified. Of course, the specific conditionals discussed are not the only possible precisifications. They do illustrate, however, just how difficult it is to distinguish one-way from two-way powers using conditionals. The conditional has to be weaker than a necessitation to correctly classify my vase's ability to break as a one-way power, yet stronger than what one might consider a mere regularity to correctly classify my ability to eat cookies as a two-way power. So far, no formulation has successfully occupied this middle ground.

4 Conjunctive account

A further way to analyze one-way and two-way powers is in terms of both abilities and opportunities. Where x is an agent or non-agent:[22]

(One-Way-b) (i) $\Box$ (x has the one-way power to $\phi \leftrightarrow$ x has the ability to $\phi \wedge$ x has the opportunity to $\phi \wedge \neg$ (x has the ability to $\neg\phi \wedge$ x has the opportunity to $\neg\phi$))

(ii) $\Box$ (x has the one-way power to $\neg\phi \leftrightarrow$ x has the ability to $\neg\phi \wedge$ x has the opportunity to $\neg\phi \wedge \neg$ (x has the ability to $\phi \wedge$ x has the opportunity to ϕ))

(Two-Way-b) $\Box$ (x has the two-way power to ϕ $(\neg\phi) \leftrightarrow$ x has the ability to $\phi \wedge$ x has the opportunity to $\phi \wedge$ x has the ability to $\neg\phi \wedge$ x has the opportunity to $\neg\phi$)

This *conjunctive account*, as I call it, appears to be suggested by Alvarez, who notes: 'If it is in A's power to act and also in her power not to act at t, then at t, A has the ability to ϕ and the ability not to ϕ, and the opportunity to ϕ and the opportunity not to ϕ' (Alvarez, 2013, 108).[23]

Note that on this account, as on the previous one, the one-way power to ϕ and the one-way power to $\neg\phi$ are distinct, while the two-way power to ϕ and the two-way power to $\neg\phi$ are the same—or at least necessarily co-occur. If x has both members of each pair of abilities and opportunities, x has both the two-way power to ϕ and the two-way power to $\neg\phi$.

Also note, again as with the previous account, that a more explicit formulation of (One-Way-a) and (Two-Way-a) would relativize the two kinds of powers twice to the same time t. For example, x has at t the one-way power to ϕ at t iff x has at t the ability to ϕ at $t \wedge x$ has at t the opportunity to ϕ at $t \wedge \neg$ (x has at t the ability to $\neg\phi$ at $t \wedge x$ has at t the opportunity to $\neg\phi$ at t). *Mutatis mutandis* for the one-way power to $\neg\phi$ as well as the two-way power to $(\neg)\phi$. For simplicity, I will leave this relativization implicit in what follows, though I will return to it at the end of this section.[24]

[21] For challenges to (4) and (5) as accounts of dispositions, see, e.g., Vetter (2014).

[22] As with the above, since the principles that follow are intended as analyses, the biconditionals should be understood as holding necessarily, not merely materially.

[23] Alvarez's discussion on p. 114 and 116 suggests that she treats the stated condition as both necessary and sufficient for having a two-way power. If you think, pace Alvarez and Steward as well as Mandelkern et al. (2017), Kieran Setiya, Irene Heim, Maria Bittner, and Martin Hackl (credited by Mandelkern et al.), that abilities can only be ascribed to agents and not to non-agents, you can replace the talk of 'ability' in (One-Way-b) and (Two-Way-b) with 'can' talk. The arguments to follow go through all the same. If, further, you deny that there is any volitional sense of 'can' that applies to non-agents, again pace those listed, and also Vetter (2014), then none of the accounts to follow will seem viable. That would be grist to my mill, since it would significantly narrow down the options. Frost (2020, 1147), like me, takes the conjunctive account as presented above seriously but objects that according to it any given one-way power and any given two-way power is lost once the opportunity to do the thing in question is lost. If you agree with this criticism, you might want to jump to section 5.2, where I discuss a modification of the conjunctive account that avoids this problem.

[24] As before, these analyses concern a specific type of power ascription: the power at t to ϕ at t. They remain silent on other specific power ascriptions, where the time of the power and the time of the action come apart, and on generic

The conjunctive account avoids the challenge discussed in section 3. But it faces a new problem. Assuming Aristotelianism—the claim that while agents have both one-way and two-way powers, non-agents have only one-way powers—we can derive Megarianism: non-agents have the power to do something just in case they are manifesting it.

Some additional assumptions will be needed. I will introduce them with boldfaced labels, without much comment, and defer their discussion to section 6. Modal operators will be interpreted as expressing metaphysical necessity and possibility, respectively. The inference will go through in any normal modal logic.[25] Crucially, apart from the assumptions explicitly noted, the inference does not rely on any specific logic of ability.[26,27]

Here is how Megarianism can be derived. It is commonly assumed that there are two kinds of abilities: general abilities and specific abilities (see, e.g., Mele (2003), Berofsky (2005), Whittle (2010)).[28] For example, sitting in my office right now with plenty of cookies available, I have both the general ability and the specific ability to eat cookies right now. Yesterday, however, I had no cookies—so while I still had the general ability to eat cookies then, I lacked the specific ability, as the opportunity didn't present itself. The day before yesterday, I lacked even the general ability: due to oral anesthesia following a dental procedure, I wasn't able to eat anything at all. General abilities (abilities$_g$) and specific abilities (abilities$_s$) are typically taken to be interdefinable as follows:

(Spec-Gen-i) $\Box$ (x has the ability$_s$ to $\phi \leftrightarrow x$ has the ability$_g$ to $\phi \wedge x$ has the opportunity to ϕ)[29]

(Spec-Gen-ii) $\Box$ (x has the ability$_s$ to $\neg\phi \leftrightarrow x$ has the ability$_g$ to $\neg\phi \wedge x$ has the opportunity to $\neg\phi$)

Given (Spec-Gen-i) and (Spec-Gen-ii), the conjunctive account reduces to the following:[30]

(One-Way-c) (i) $\Box$ (x has the one-way power to $\phi \leftrightarrow x$ has the ability$_s$ to $\phi \wedge \neg\, x$ has the ability$_s$ to $\neg\phi$)

(ii) $\Box$ x has the one-way power to $\neg\phi \leftrightarrow x$ has the ability$_s$ to $\neg\phi \wedge \neg\, x$ has the ability$_s$ to ϕ)

power ascriptions. The problem I will raise is independent of whether and how the analyses are extended to cover these additional cases.

[25] Strictly speaking, the inference does not even require axiom K. I will specify the rules assumed at each step of the inference in the footnotes.

[26] It remains an open question whether (T-i) and (T-ii)—to be introduced below—which can be viewed as restricted forms of axiom T in a logic of ability, can only be validated within a normal modal logic for ability.

[27] As is commonly assumed in the debate, I will proceed on the assumption that opportunities do not entail abilities. I realize this may not be entirely uncontroversial, but I'll have to leave a fuller discussion for another occasion. For now, I take some reassurance from sentences like 'Lake Wonderful offers the most scenic opportunity for swimming. Parents are encouraged to ensure their children can swim, so they can make the most of their holiday experience'—which seem perfectly felicitous, despite implying that an opportunity exists even if some children may lack the corresponding ability. I'm grateful to an anonymous reviewer of this journal for pressing me on this point.

[28] Importantly, this distinction differs from the one drawn in the semantics and pragmatics literature between generic and specific ability ascriptions. In that context, a specific ability ascription has as its prejacent a 'specific action'—i.e., 'an action indexed to a specific time'—whereas a generic ability ascription has as its prejacent a 'generic action'—i.e., an action 'not tied to a specific time' ((Mandelkern et al., 2017, 303)). As noted in footnote 13, all power ascriptions discussed in this paper count as specific power ascriptions given the distinction introduced here. Likewise, all ability ascriptions in the paper are specific ability ascriptions in the linguistic sense.

[29] A more explicit, time-relativized formulation of (Spec-Gen-i) would be: x has at t the ability$_s$ to ϕ at t iff x has at t the ability$_g$ to ϕ at $t \wedge x$ has at t the opportunity to ϕ at t. *Mutatis mutandis* for (Spec-Gen-ii).

[30] We are assuming here $\Box$ (A $\leftrightarrow$ B), $\Box$ (C $\leftrightarrow$ B) $\vDash$ $\Box$ (A $\leftrightarrow$ C). The inference holds not only if we interpret 'ability' in (One-Way-b) and (Two-Way-b) as 'ability$_g$' but also if we interpret it as 'ability$_s$', because since according to (Spec-Gen-i) and (Spec-Gen-ii), having a specific ability implies having an opportunity, we can simply omit the opportunities from (One-Way-b) and (Two-Way-b).

(Two-Way-c) $\Box$ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the ability$_s$ to ϕ $\wedge$ x has the ability$_s$ to $\neg\phi$)

(One-Way-c) holds for any x. What holds for any x also holds for any agent a as well as any non-agent n. We can thus infer the following:[31]

(6) $\Box$ (n has the one-way power to $\phi \rightarrow \neg\ n$ has the ability$_s$ to $\neg\phi$)

(7) $\Box$ (n has the one-way power to $\neg\phi \rightarrow \neg\ n$ has the ability$_s$ to ϕ)

Next, let agency and non-agency be necessary properties: if something is an agent at t, it is an agent in all accessible possible world at t, and if something is a non-agent at t, it is an non-agent in all accessible worlds at t. Assume Aristotelianism, that is the claim that while agents have both one-way and two-way powers, non-agents have only one-way powers. Then we get that if something is an agent at t, it must a two-way power at t, and if something is a non-agent at t, it cannot have any two-way powers at t. Assuming (Two-Way-c), the latter claim suggests the following:

(8) $\neg\Diamond$ (n has the ability$_s$ to ϕ $\wedge$ n has the ability$_s$ to $\neg\phi$)

Now Austin (1961) famously held that what is known as (a version of) the T-axiom of modal logic (i.e. A $\vDash$ $\Diamond$ A) also holds for ability ascriptions. So assume, in line with Austin, the following:

(T-i) $\Box$ (n ϕs $\rightarrow$ n has the ability$_s$ to ϕ)

(T-ii) $\Box$ (n $\neg\phi$s $\rightarrow$ n has the ability$_s$ to $\neg\phi$)

Given these principles, there are two things we can infer. First, if it's not the case that n ϕs, then it's not the case that n has the one-way power to ϕ. Second, if n ϕs, then n has the one-way power to ϕ.

The reasoning for the first claim is the following. Assume, as is plausible, that it's not the case that n ϕs iff n does not ϕ, or more precisely:

(Neg-Mov) $\Box$ (n $\neg\phi$ $\leftrightarrow$ $\neg\ n$ ϕ)[32]

Then (T-ii) is equivalent to the following:[33]

(9) $\Box$ ($\neg\ n$ ϕs $\rightarrow$ n has the ability$_s$ to $\neg\phi$)

Furthermore, (6) and (9) jointly entail the following:[34]

(10) $\Box$ ($\neg\ n$ ϕs $\rightarrow$ $\neg\ n$ has the one-way power to ϕ)

So we arrive at the claim that if it's not the case that n ϕs, then it's not the case that n has the one-way power to ϕ.

The reasoning for the second claim is this. (8) and (T-i) jointly entail the following:[35]

[31] We are assuming here $\Box$ (A $\leftrightarrow$ B $\wedge$ C) $\vDash$ $\Box$ (A $\rightarrow$ C).

[32] (Neg-Mov) doesn't assume that wide scope and narrow scope negation are the same. It merely assumes that sentences of the form 'it's not the case that n ϕs' are equivalent to sentences of the form 'n does not ϕ'.

[33] We are assuming here $\Box$ (A $\rightarrow$ B), $\Box$ (A $\leftrightarrow$ C) $\vDash$ $\Box$ (C $\rightarrow$ B).

[34] We are assuming here $\Box$ (A $\rightarrow$ $\neg$B), $\Box$ ($\neg$C $\rightarrow$ B) $\vDash$ $\Box$ ($\neg$C $\rightarrow$ $\neg$A).

[35] We are assuming $\Box$ A $\dashv\vDash$ $\neg\Diamond\neg$ A and $\Box$ (A $\rightarrow$ $\neg$B), $\Box$ (C $\rightarrow$ A) $\vDash$ $\Box$ (C $\rightarrow$ A $\wedge$ $\neg$B).

(11) $\Box$ (n ϕs $\rightarrow$ (n has the ability$_s$ to ϕ $\wedge$ $\neg$ n has the ability$_s$ to $\neg\phi$))

Furthermore, given (One-Way-c), (11) is equivalent to (12):[36]

(12) $\Box$ (n ϕs $\rightarrow$ n has the one-way power to ϕ)

So we arrive at the claim that if n ϕs, then n has the one-way power to ϕ.

The boxed conditionals in (10) and (12) jointly entail the boxed biconditional in (13):[37]

(13) $\Box$ (n ϕs $\leftrightarrow$ n has the one-way power to ϕ)

Now assume Aristotelianism and the claim that there are no further powers besides one-way and two-way powers, that is (Power-Ex):

(Power-Ex) Every power is either a one-way power or a two-way power.

Then (13) entails (C):

(C) $\Box$ (n ϕs $\leftrightarrow$ n has the power to ϕ)

In other words, non-agents ϕ if and only if they have the power to ϕ. More precisely, using the explicit, time-relativized formulation introduced above: non-agents ϕ at t if and only if they have at t the power to ϕ at t. That is, for non-agents, power collapses into actuality: they possess a power when and only when they manifest that power.

5 Modified accounts

Is there a way to avoid Megarianism? In the following, I examine two natural modifications of the conjunctive account. I argue that they face the same problem.

5.1 Simple opportunity account

One option is to eliminate talk of abilities altogether and analyze one-way and two-way powers solely in terms of opportunities. The idea is that if x has only one of a pair of relevant opportunities, then x must do what x is doing. By contrast, if x has both opportunities available, then x is, in some intuitive sense, free to choose between them. For any x:

(One-Way-d) (i) $\Box$ (x has the one-way power to ϕ $\leftrightarrow$ x has the opportunity to ϕ $\wedge$ $\neg$ x has the opportunity to $\neg\phi$)

(ii) $\Box$ (x has the one-way power to $\neg\phi$ $\leftrightarrow$ x has the opportunity to $\neg\phi$ $\wedge$ $\neg$ x has the opportunity to ϕ)

(Two-Way-d) $\Box$ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the opportunity to ϕ $\wedge$ x has the opportunity to $\neg\phi$)

This *simple opportunity account* neatly captures why I have the two-way power to move my arm right now: I have both the opportunity to move it and the opportunity not to. But it yields the same consequence as the conjunctive account however. If Austin's claims (T-i) and (T-ii) from above are plausible, then the following, where n is once more a non-agent, is plausible too (see section 6 for discussion).

[36] We are assuming $\Box$ (A $\leftrightarrow$ B $\wedge$ $\neg$C), $\Box$ (D $\rightarrow$ B $\wedge$ $\neg$C) $\vDash$ $\Box$ (D $\rightarrow$ A).

[37] We are assuming $\Box$ ($\neg$A $\rightarrow$ $\neg$B), $\Box$ (A $\rightarrow$ B) $\vDash$ $\Box$ (A $\leftrightarrow$ B).

(T-i′) $\Box$ (n ϕs $\rightarrow$ n has the opportunity to ϕ)

(T-ii′) $\Box$ (n $\neg\phi$s $\rightarrow$ n has the opportunity to $\neg\phi$)

(One-Way-d) holds for any x. What holds for any x also holds for any agent a as well as any non-agent n. We can thus infer the following:[38]

(6′) $\Box$ (n has the one-way power to $\phi \rightarrow \neg$ n has the opportunity to $\neg\phi$)

(7′) $\Box$ (n has the one-way power to $\neg\phi \rightarrow \neg$ n has the opportunity to ϕ)

Furthermore, given (non-)agency necessitarianism and Aristotelianism, and assuming (Two-Way-d), we have:

(8′) $\neg\Diamond$ (n has the opportunity to $\phi \wedge$ n has the opportunity to $\neg\phi$)

The rest follows the familiar pattern.

(9′) $\Box$ ($\neg$ n ϕs $\rightarrow$ n has the opportunity to $\neg\phi$) [(T-ii′) & (Neg-Mov)]

(10′) $\Box$ ($\neg$ n ϕs $\rightarrow \neg$ n has the one-way power to ϕ) [(6′) & (9′)]

(11′) $\Box$ (n ϕs $\rightarrow$ (n has the opportunity to $\phi \wedge \neg$ n has the opportunity to $\neg\phi$)) [(8′) & (T-i′)]

(12′) $\Box$ (n ϕs $\rightarrow$ n has the one-way power to ϕ) [(11′) & (One-Way-d)]

(13′) $\Box$ (n ϕs $\leftrightarrow$ n has the one-way power to ϕ) [(10′) & (12′)]

Given Aristotelianism and (Power-Ex)—the claim that there are no further powers besides one-way and two-way powers—(13′) implies (C):

(C) $\Box$ (n ϕs $\leftrightarrow$ n has the power to ϕ)

So, if we analyze one-way and two-way powers simply in terms of opportunities, power again collapses into actuality.

5.2 General ability account

Another option is to dispense with opportunities and analyze one-way and two-way powers solely in terms of abilities. More specifically, given that the conjunctive account has been shown to reduce to an account involving specific abilities, the proposal would be to interpret both kinds of powers in terms of general abilities. This approach is also supported by Aristotle's characterization in the Nicomachean Ethics, which doesn't mention opportunities. He suggests that what is distinctive of the power to act—a presumed two-way power—is that 'where it is in our power to act, it is also in our power not to act'.[39] More concretely, the idea would be the following. For any x:

(One-Way-e) (i) $\Box$ (x has the one-way power to $\phi \leftrightarrow$ x has the ability$_g$ to $\phi \wedge \neg$ x has the ability$_g$ to $\neg\phi$))

[38] The rules used in the derivation are exactly the same as those employed in section 4. For brevity, I leave them implicit here.

[39] In a similar vein, Steward (2012, 155) notes: '[The] power to act [...] is a *two-way* power: to act or refrain from acting. That makes it so special.' See also Frost's criticism in footnote 23.

(ii) $\Box$ (x has the one-way power to $\neg\phi \leftrightarrow$ x has the ability$_g$ to $\neg\phi \wedge \neg$ x has the ability$_g$ to ϕ)

(Two-Way-e) $\Box$ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the ability$_g$ to $\phi \wedge x$ has the ability$_g$ to $\neg\phi$)

This *general ability account*, too, yields the same consequence as the conjunctive account. If Austin is right and the T-axiom holds for abilities, then we can assume the following, where once again n is a non-agent (see section 6 for discussion):

(T-i$''$) $\Box$ (n ϕs $\rightarrow$ n has the ability$_g$ to ϕ)

(T-ii$''$) $\Box$ (n $\neg\phi$s $\rightarrow$ n has the ability$_g$ to $\neg\phi$)

(One-Way-e) holds for any x. What holds for any x also holds for any agent a as well as any non-agent n. We can thus infer the following:[40]

(6$''$) $\Box$ (n has the one-way power to $\phi \rightarrow \neg$ n has the ability$_g$ to $\neg\phi$)

(7$''$) $\Box$ (n has the one-way power to $\neg\phi \rightarrow \neg$ n has the ability$_g$ to ϕ)

Furthermore, given (non-)agency necessitarianism and Aristotelianism, and assuming (Two-Way-e), we have:

(8$''$) $\neg\Diamond$ (n has the ability$_g$ to $\phi \wedge n$ has the ability$_g$ to $\neg\phi$)

The rest follows again the familiar pattern.

(9$''$) $\Box$ ($\neg$ n ϕs $\rightarrow$ n has the ability$_g$ to $\neg\phi$) [(T-ii$''$) & (Neg-Mov)]

(10$''$) $\Box$ ($\neg$ n ϕs $\rightarrow \neg$ n has the one-way power to ϕ) [(6$''$) & (9$''$)]

(11$''$) $\Box$ (n ϕs $\rightarrow$ n has the ability$_g$ to $\phi \wedge \neg$ n has the ability$_g$ to $\neg\phi$) [(8$''$) & (T-i$''$)]

(12$''$) $\Box$ (n ϕs $\rightarrow$ n has the one-way power to ϕ) [(11$''$) & (One-Way-e)]

(13$''$) $\Box$ (n ϕs $\leftrightarrow$ n has the one-way power to ϕ) [(10$''$) & (12$''$)]

Given Aristotelianism and the claim that there are no further powers besides one-way and two-way powers, (13$''$) in turn implies (C):

(C) $\Box$ (n ϕs $\leftrightarrow$ n has the power to ϕ)

So, if we analyze one-way and two-way powers in terms of general abilities, power again collapses into actuality.

[40] The rules used in this derivation are again exactly the same as those employed in section 4. For brevity, I leave them implicit here.

5.3 Simplification

On both the simple opportunity account and the general ability account, just like on the conjunctive account from section 4, one-way and two-way powers are incompatible: if x has a one-way power to ϕ at t, it doesn't have the two-way power to ϕ at t, and if x has the two-way power to ϕ at t, it doesn't have the one-way power to ϕ at t. In any case, a two-way power is not a conjunction of two one-way powers.[41] This can be avoided if in addition to (Two-Way-c/d/e) (repeated below) but instead of (One-Way-c/d/e) we work with one of the following accounts, where the respective second conjunct is removed:

(One-Way-c′) $\Box$ (x has the one-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the ability$_s$ to ϕ ($\neg\phi$))

(One-Way-d′) $\Box$ (x has the one-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the opportunity to ϕ ($\neg\phi$))

(One-Way-e′) $\Box$ (x has the one-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the ability$_g$ to ϕ ($\neg\phi$))

(Two-Way-c) $\Box$ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the ability$_s$ to $\phi \wedge x$ has the ability$_s$ to $\neg\phi$)

(Two-Way-d) $\Box$ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the opportunity to $\phi \wedge x$ has the opportunity to $\neg\phi$)

(Two-Way-e) $\Box$ (x has the two-way power to ϕ ($\neg\phi$) $\leftrightarrow$ x has the ability$_g$ to $\phi \wedge x$ has the ability$_g$ to $\neg\phi$)

The problem though stays the same. If a non-agent n has the one-way power to ϕ at t, then n has the specific ability, the opportunity, or the general ability to ϕ at t, according to (One-Way-c′), (One-Way-d′), (One-Way-e′). But if n also had the specific ability, the opportunity, or the general ability to $\neg\phi$ at t, it would, by (Two-Way-c), (Two-Way-d), or (Two-Way-e), have the two-way power to ϕ and the two-way power to $\neg\phi$ at t. According to Aristotelianism, a non-agent would thus be an agent t, which is impossible. So even assuming the indicatd simplification, we would get the following, familiar from above.

(6) $\Box$ (n has the one-way power to $\phi \rightarrow \neg$ n has the ability$_s$ to $\neg\phi$)

(6′) $\Box$ (n has the one-way power to $\phi \rightarrow \neg$ n has the opportunity to $\neg\phi$)

(6″) $\Box$ (n has the one-way power to $\phi \rightarrow \neg$ n has the ability$_g$ to $\neg\phi$)

Given these claims, we can rerun the above arguments, replacing (One-Way-c), (One-Way-d), (One-Way-e) with (One-Way-c′), (One-Way-d′), (One-Way-e′) in the derivations.[42]

6 Discussion

There are in principle two ways to respond to the arguments presented in sections 4 and 5. Either we accept (C) and with it Megarianism, or we reject one of the assumptions. As indicated in the introduction, Megarianism is not untenable, but it seems counterintuitive, even when restricted to

[41] Some proponents of Aristotelianism consider this crucial to ascertain the deep metaphysical difference between the two kinds of power. See, e.g., Steward (2020) and Frost (2020).

[42] When we go from (11) and variants to (12) and variants, we are not merely assuming $\Box$ (A $\leftrightarrow$ B), $\Box$ (B $\leftrightarrow$ C) $\models \Box$ (A $\leftrightarrow$ C) but also $\Box$ (A $\rightarrow$ B $\wedge$ C) $\models \Box$ (A $\rightarrow$ B).

non-agents, and thus presents a clear theoretical cost. Let's therefore look into options for avoiding Megarianism.[43]

One option is to block the final step of the inference—from (13) (= (13′)/(13″)) to (C)—by rejecting (Power-Ex), and maintaining that although non-agents cannot possess two-way powers, they may nevertheless have powers that are not merely one-way. But this move seems *ad hoc*: neither Aristotelians nor anyone else has ever proposed such a view. Moreover, the intermediate conclusion (13) is already counterintuitive. As an ability, capacity, or potency, we would not expect even a one-way power to collapse into actuality.

A second option is to reject the analysis of specific abilities in terms of general abilities and opportunities as suggested by (Spec-Gen-i) and (Spec-Gen-ii). But this option seems problematic as well, not only because (Spec-Gen-i) and (Spec-Gen-ii) are widely accepted but also because (Spec-Gen-i) and (Spec-Gen-ii) are only assumed in the derivation regarding the conjunctive account, to get from (One-Way-b) and (Two-Way-b) to (One-Way-c) and (Two-Way-c), respectively (not in the derivations regarding the simple opportunity account and the general ability account). But strictly speaking, given (T-i)/(T-ii), (T-i′)/(T-ii′), and (T-i″)/(T-ii″), we don't even need (Spec-Gen-i) and (Spec-Gen-ii) to derive (C) in this case. For given that both a non-agent's (specific or general) ability and its opportunity to ϕ are implied by the non-agent's ϕ-ing, we can derive (C) directly from (One-Way-b) and (Two-Way-b).[44]

A third option is to challenge the assumption that agency and non-agency are necessary properties, and (8), (8′), or (8″) in particular. There are two considerations that speak against this move. First, there is no compelling reason to deny necessitarianism about (non-)agency. Second, and more importantly, the preceding arguments do not strictly depend on assuming such necessitarianism. Let me elaborate on these points in turn.

Why would one think that (non)-agency necessitarianism is false?[45] Think of a world in which my genetic counterpart is only an embryo right now (it was conceived much later than I was) or in which my genetic counterpart is in a coma right now (it suffered an accident on its way to work). If we assume that the embryo and the coma patient are non-agents while I am an agent, (non-)agent necessitarianism implies that I am neither identical with the embryo nor with the coma patient. This in turn suggests that I am neither identical with the embryo that my parents conceived in the actual world a while back nor identical with the coma patient that will cost my health insurance quite a fortune (let's assume that's my and my health insurance's fate). How plausible is that?

On the one hand, it is not clear that the embryo and the coma patient are non-agents. There might be some ϕs such that the embryo or the coma patient can ϕ and can not ϕ in the (specific or general) ability or the opportunity sense. So it is not clear that I couldn't be identical to them. On the other hand, *if* we assume that the embryo and the coma patient *are* non-agents, then it's not only intuitive that they might not be identical to me; this is also predicted to be the case on many accounts of personal identity: on many such accounts, I, a person, can only be identical to persons. And on many further such accounts, if something is a person, it is an agent. So I can only be identical to agents, not to non-agents. One might reject these accounts of personal identity, but

[43] Note that Aristotelianism, as introduced in the introduction, is typically not held in isolation but forms part of a broader theoretical picture that brings with it additional commitments. In what follows, I set those commitments aside. My aim is to assess whether there are compelling reasons to accept one of the options discussed below—reasons that would be persuasive to an uncommitted scholar—rather than to determine whether actual Aristotelians would be prepared to accept any particular cost.

[44] Assuming (Spec-Gen-i) and (Spec-Gen-ii) is not only plausible, but also makes the derivation more natural. That is why I did not consider the alternative strategy—assuming (T-i)/(T-ii), (T-i′)/(T-ii′), and (T-i″)/(T-ii″) for the derivation in section 4—from the outset.

[45] I thank [redacted-b] and [redacted-c] for very helpful discussion.

this would be a significant theoretical cost. Megarianism could only be avoided by taking on board specific non-standard views about personal identity.[46]

As indicated above, however, we don't have to commit to (non-)agency necessitarianism to run the above arguments.[47] Note that there are two kinds of claims that should be kept apart. On the one hand, there is

(14) $\forall x$ (x is a non-agent $\rightarrow \neg\Diamond$ (x has the ability$_s$ to $\phi \wedge x$ has the ability$_s$ to $\neg\phi$))

(14′) $\forall x$ (x is a non-agent $\rightarrow \neg\Diamond$ (x has the opportunity to $\phi \wedge x$ has the opportunity to $\neg\phi$))

(14″) $\forall x$ (x is a non-agent $\rightarrow \neg\Diamond$ (x has the ability$_g$ to $\phi \wedge x$ has the ability$_g$ to $\neg\phi$))

On the other hand, there is

(15) $\forall x \neg\Diamond$ (x is a non-agent $\wedge$ (x has the ability$_s$ to $\phi \wedge x$ has the ability$_s$ to $\neg\phi$))

(15′) $\forall x \neg\Diamond$ (x is a non-agent $\wedge$ (x has the opportunity to $\phi \wedge x$ has the opportunity to $\neg\phi$))

(15″) $\forall x \neg\Diamond$ (x is a non-agent $\wedge$ (x has the ability$_g$ to $\phi \wedge x$ has the ability$_g$ to $\neg\phi$))

By assuming (8) and variants, we committed ourselves to (14) and variants. Given Aristotelianism and the respective accounts of one-way and two-way powers, these claims imply that if something is a non-agent, it is a non-agent in all accessible possible worlds and, likewise, they suggest that if something is an agent, it is an agent in all accessible possible worlds. But we could waive (8) and variants and work with (15) and variants only. Crucially, these latter claims do not imply (non-)agent necessitarianism. They merely have it that there is no possible world inhabited by a non-agent that can ϕ and can not ϕ in the relevant sense, which is what Aristotelianism tells us. The derivation would look like this. Given either (One-Way-c), (One-Way-d), or (One-Way-e), we get (16) (here and in the following, 'can' is supposed to be read as a place-holder that stands for specific ability, opportunity, or general ability):

(16) $\forall x \Box$ (x is a non-agent $\rightarrow$ (x has the one-way power to $\phi \rightarrow \neg\, x$ can $\neg\phi$))

Given Aristotelianism and (Two-Way-c), (Two-Way-d), or (Two-Way-e), we have (17):

(17) $\forall x \neg\Diamond$ (x is a non-agent $\wedge$ (x can $\phi \wedge x$ can $\neg\phi$))

Following Austin, we can assume (18) and (19):

(18) $\forall x \Box$ (x is a non-agent $\rightarrow$ (x ϕs $\rightarrow x$ can ϕ))

(19) $\forall x \Box$ (x is a non-agent $\rightarrow$ (x $\neg\phi$s $\rightarrow x$ can $\neg\phi$))

We can derive Megarianism as follows:

(20) $\forall x \Box$ (x is a non-agent $\rightarrow$ ($\neg\, x$ ϕs $\rightarrow x$ can $\neg\phi$)) [(19) & (Neg-Mov)]

(21) $\forall x \Box$ (x is a non-agent $\rightarrow$ ($\neg\, x$ ϕs $\rightarrow \neg\, x$ has the one-way power to ϕ)) [(16) & (20)]

[46] An anonymous reviewer of this journal notes that animalists—who deny that we are essentially persons—have reason to reject (non-)agency necessitarianism if they hold that every agent is essentially a person. Since animalism is a minority view, I consider adopting it to come at a theoretical cost. More importantly, the assumption that every agent is essentially a person also appears to be a minority position, and thus carries an additional theoretical cost. I am grateful to the reviewer for raising this point and for their helpful suggestions.

[47] Assuming (non-)agency necessitarianism is not only plausible, as argued above, but also renders the derivation more natural. For this reason, I did not consider alternatives that reject (non-)agency necessitarianism from the outset.

(22) $\forall x \, \Box$ (x is a non-agent $\rightarrow$ (x ϕs $\rightarrow$ x can ϕ $\wedge$ $\neg$ x can $\neg\phi$)) [(17) & (18)]

(23) $\forall x \, \Box$ (x is a non-agent $\rightarrow$ (x ϕs $\rightarrow$ x has the one-way power to ϕ)) [(22) & (One-Way-c-e)]

(24) $\forall x \, \Box$ (x is a non-agent $\rightarrow$ (x ϕs $\leftrightarrow$ x has the one-way power to ϕ)) [(21) & (23)]

Given Aristotelianism and the claim that, besides one-way and two-way powers, there are no further powers, (24) entails (C′):

(C′) $\forall x \, \Box$ (x is a non-agent $\rightarrow$ (x ϕs $\leftrightarrow$ x has the power to ϕ))

In other words, for any x, it is necessary that if x is a non-agent, it ϕs just in case it has the power to ϕ. In other words, non-agents ϕ iff they have the power to ϕ.

A fourth option is to reject the Austin inspired assumptions (T-i)/(T-ii), (T-i′)/(T-ii′), and (T-i″)/(T-ii″).[48] Let's reconsider the relevant claims.

(T-i) $\Box$ (n ϕs $\rightarrow$ n has the ability$_s$ to ϕ)

(T-ii) $\Box$ (n $\neg\phi$s $\rightarrow$ n has the ability$_s$ to $\neg\phi$)

(T-i′) $\Box$ (n ϕs $\rightarrow$ n has the opportunity to ϕ)

(T-ii′) $\Box$ (n $\neg\phi$s $\rightarrow$ n has the opportunity to $\neg\phi$)

(T-i″) $\Box$ (n ϕs $\rightarrow$ n has the ability$_g$ to ϕ)

(T-ii″) $\Box$ (n $\neg\phi$s $\rightarrow$ n has the ability$_g$ to $\neg\phi$)

Assumptions (T-i′)/(T-ii′) seem hard to deny, because it seems impossible to ϕ without there being the opportunity to ϕ, whether the thing in question is an agent or a non-agent. What about assumptions (T-i)/(T-ii) and (T-i″)/(T-ii″) though?

As indicated above, Austin (1961, 227) famously held that 'it follows merely from the premise that [somebody did something], that he has the ability to do it, according to ordinary English'. Arguably, what on Austin's view follows from a person's ϕing is that that person has the specific and the general ability as understood above. Austin couldn't have meant that the person only has the specific ability, since by (Spec-Gen-i) and (Spec-Gen-ii), specific ability implies general ability. Likewise, Austin couldn't have meant that the person only has the general ability, since the person who did something clearly had the opportunity to do it, and by (Spec-Gen-i) and (Spec-Gen-ii), general ability plus opportunity implies specific ability. In short, according to Austin, axiom T (A $\vDash$ $\Diamond$ A) holds for both specific and general abilities. Therefore, (T-i)/(T-ii) and (T-i″)/(T-ii″) hold too.[49]

[48] Steward (2020, 347) states that a non-agent's ϕ-ing does not entail that it has the *power* to ϕ. One way to interpret this is as the claim that the non-agent's ϕ-ing does not entail that it has the *ability* to ϕ. Alvarez (2013, 109) seems to only deny the other direction of the conditional, as she notes that the relevant notion of ability 'doesn't imply that whenever I try to exercise such an ability, given the opportunity, I shall succeed, because [...] I might try but fail despite having the ability and opportunity'.

[49] [Redacted for blind review] has objected that axiom T as applied to abilities (whether it's the abilities of agents or of non-agents) lacks sufficient linguistic support: 'S hit the bullseye' indeed implies 'S was able to hit the bullseye' but 'S hit the bullseye' does not imply 'S had the ability to hit the bullseye', contrary to what is predicted by T (I leave open the question of whether this would put pressure on T for both specific and general abilities or on just one of them, as argued by [redacted]). Note two things in response. First, in his famous quote, Austin himself drew the inference to the person in question *having the ability* rather than *being able* to do something. So Austin as well as those who have taken his linguistic observation seriously would disagree with the alleged intuition. Second, sentences like 'S was able to hit the bullseye, but they didn't have the ability to do it' sound strange. Providing empirical evidence for this claim would call for another paper, but as far as I can see empirical evidence to the contrary hasn't been provided either. Note furthermore and as indicated in footnote 28, the distinction between specific and general abilities at issue here is different from the distinction between specific and generic ability ascriptions at issue in, e.g., Mandelkern et al. (2017).

But Austin's view has not only been met with approval. Kenny (1976) equally famously objected that the unskilled dart player might hit the bullseye by a fluke, without having the ability to hit the bullseye. Does this pose a problem for (T-i)/(T-ii) and (T-i″)/(T-ii″)?

Boylan (2021) and Loets and Zakkou (2022) have recently argued that what is driving intuitions in cases like Kenny's is the assumption that ability requires control (see similarly (Portner, 2009, 201)). Roughly, the idea is that x's ϕ-ing implies x's ability to ϕ only if ϕ-ing is under x's control. It is controversial whether there really is a control requirement on abilities and, accordingly, whether cases like Kenny's show Austin's claim to be false (see again Loets and Zakkou (2022), for discussion), but it seems fair to assume that if there is a control requirement, it is only a requirement for agents' abilities and not for non-agents' abilities: agents are the sorts of things that can have control; non-agents are not.[50] So, unless we think that non-agents do not have any abilities at all, we have to acknowledge that there is no control requirement on non-agents' abilities.[51] This in turn suggests that cases like Kenny's do not threaten axiom T ($A \vDash \Diamond A$) as applied to non-agents' abilities or (T-i)/(T-ii) and (T-i″)/(T-ii″) more specifically.

One might argue that there are direct counterexamples to the idea that axiom T applies to non-agents, and therefore regard the discussion of control as an unnecessary detour. Three kinds of cases come to mind (each of which could also be presented as a counterexample to the associated claims about control). First, non-agents sometimes produce a given outcome only very rarely. One might think of a pill that heals a specific disease in just one out of a very large sample of patients. The pill healed the disease in that one case, but one might doubt that it has the ability to heal the disease. Second, non-agents sometimes produce a given outcome by accident. Consider a device designed to cool its surroundings, which, due to a short circuit, gives off heat in a single instance. While it produced heat, one might argue that it does not have the ability to do so. Third, non-agents sometimes exhibit a certain kind of behavior by brute force. For example, a concrete block that is blown apart by an explosive breaks, but one might deny that it has the ability to break (after all, it is neither breakable nor disposed to break).[52]

I don't think these cases present counterexamples to the relevant claims. Crucially, axiom T for abilities, and (T-i)/(T-ii) and (T-i″)/(T-ii″) more specifically, does not imply that the pill can heal people in general, that the device can give off heat under standard conditions, or that the block can break in ordinary circumstances. It implies only much more modest ability ascriptions—and these seem perfectly plausible.[53] Consider the following dialogues: 'Does this pill have the ability to heal?' – 'Well, it healed this one patient. So it at least had the ability to heal that patient.' — 'Does your device have the ability to give off heat?' – Well, it gave off heat yesterday when it was short-circuited. So it at least had the ability to give off heat then.' — 'Does your concrete block have the ability to break? – Well, it broke when dynamite was inserted. So it at least had the ability to break in that instance.'[54]

Where does that leave us? If I'm on the right track, and if we want to stay committed to Aristotelianism, only one option remains: to develop an alternative account of one-way and two-way powers that avoids the problems identified above. One possibility is to return to a suggestion

[50] Put differently: while for agents it makes sense to distinguish between a skilled ϕ-ing, which entails the ability to ϕ, and an unskilled ϕ-ing, which might not entail the ability to ϕ, such a distinction seems inapplicable to non-agents.

[51] See footnote 23 for the dialectical standing of the claim that non-agents cannot have any abilities.

[52] I thank [redacted-a], [redacted-d] and [redacted-e] for pressing me to discuss cases like the above and for helpful discussion.

[53] This becomes even clearer when we consider the explicit, time-relativized version of the relevant claims: $\Box$ (n ϕs at t $\rightarrow$ n has at t the ability$_s$/ability$_g$ to ϕ at t).

[54] That the block had the ability to break at the indicated time doesn't show that the block was easily breakable, but some things might be in principle breakable even though they are not easily breakable (see, similarly, Vetter (2015)). The block might not be disposed to break, but it is not clear that abilities imply dispositions; or more concretely, it's not clear that ability ascriptions imply disposition ascriptions of the form 'is disposed to' (see e.g. Choi (2003) for discussion of the canonical template of Lewis's two-step approach to dispositions).

mentioned in the introduction. Roughly, for any x (whether agent or non-agent), if it's up to x whether x ϕs, or if x can settle whether x ϕs, x has the two-way power to ϕ; if it's not up to x whether x ϕs, or if x cannot settle whether x ϕs, x at best has the one-way power to ϕ. These notions—of something's being up to someone or something or of settling something—would have to be treated as basic and sufficiently intuitive to ground an informative analysis of one- and two-way powers. Another possibility is to develop a novel account. As of now, however, no such account is available.

7 Conclusion

In this paper, I examined two approaches to understanding one-way and two-way powers that have been suggested in the literature. I argued that both face serious difficulties. The conditional account encounters problems that resist standard repair strategies developed for conditional analyses of dispositions and abilities. The conjunctive account collapses into Megarianism. Anyone who wants to preserve Aristotelianism must find a new way to explain one-way and two-way powers. As things stand, however, no such account is currently available.

References

Alvarez, M. (2009). Actions, thought-experiments and the 'principle of alternate possibilities'. *Australasian Journal of Philosophy*, 87(1):61–81.

Alvarez, M. (2013). Agency and two-way powers. *Proceedings of the Aristotelian Society*, 113:101–121.

Austin, J. L. (1961). Ifs and cans. In Urmson, J. O. and Warnock, G. J., editors, *Philosophical Papers*, pages 153–180. Clarendon Press, Oxford.

Berofsky, B. (2005). Ifs, cans, and free will: the issues. In Kane, R., editor, *The Oxford Handbook of Free Will*, pages 180–201. Oxford University Press, Oxford.

Bird, A. (1998). Dispositions and antidotes. *The Philosophical Quarterly*, 48(191):227–234.

Boylan, D. (2021). Does success entail ability? *Noûs*.

Choi, S. (2003). Improving bird's antidotes. *Australasian Journal of Philosophy*, 81(4):573–580.

Fine, K. (2009). The question of ontology. In Chalmers, D. J., Manley, D., and Wasserman, R., editors, *Metametaphysics*, pages 157–177. Clarendon Press, Oxford.

Frost, K. (2013). Action as the exercise of a two-way power. *Inquiry*, 56(6):611–624.

Frost, K. (2020). What could a two-way power be? *Topoi*, 39(5):1141–1153.

Geach, P. (2000). Intention, freedom and predictability. *Royal Institute of Philosophy Supplement*, 46:73–81.

Hájek, A. (2020). Minkish dispositions. *Synthese*, 197(11):4795–4811.

Hart, H. (1968). *Punishment and Responsibility*. Clarendon Press, Oxford.

Johnston, M. (1992). How to speak of the colors. *Philosophical Studies*, 68(3):221–263.

Kenny, A. (1976). Human abilities and dynamic modalities. In Manninen, J. and Tuomela, R., editors, *Essays on Explanation and Understanding*, pages 209–232. Reidel, Dordrecht.

Kratzer, A. (1981). The notional category of modality. In Eikmeyer, H. J. and Rieser, H., editors, *Words, Worlds, and Contexts*, pages 38–74. De Gruyter, Berlin.

Kratzer, A. (1986). Conditionals. *Chicago Linguistics Society*, 22(2):1–15.

Lewis, D. (1973). *Counterfactuals*. Harvard University Press, Malden, MA.

Lewis, D. (1997). Finkish dispositions. *The Philosophical Quarterly*, 47:143–158.

List, C. (2019). *Why Free Will Is Real*. Harvard University Press, Cambridge, MA.

Loets, A. and Zakkou, J. (2022). Agentive duality reconsidered. *Philosophical Studies*, 179(12):3771–3789.

Lowe, E. J. (2008). *Personal Agency*. Oxford University Press, Oxford.

Lowe, E. J. (2013). The will as a rational power. In Greco, J. and Groff, R., editors, *Powers and Capacities in Philosophy*, pages 172–185. Routledge, New York.

Mandelkern, M., Schultheis, G., and Boylan, D. (2017). Agentive modals. *Philosophical Review*, 126(3):301–343.

Manley, D. and Wasserman, R. (2008). On linking dispositions and conditionals. *Mind*, 117(465).

Martin, C. B. (1994). Dispositions and conditionals. *The Philosophical Quarterly*, 44(174):1.

Mele, A. R. (2003). Agents' abilities. *Nous*, 37(3):447–470.

Mumford, S. (1998). *Dispositions*. Oxford University Press, Oxford.

Portner, P. (2009). *Modality*. Oxford University Press, Oxford.

Stalnaker, R. (1975). Indicative conditionals. *Philosophia*, 5(3):269–286.

Stalnaker, R. (1981). A theory of conditionals. In Harper, W. L., Stalnaker, R., and Pearce, G., editors, *Ifs*, pages 41–55. Springer, Dordrecht.

Steward, H. (2012). *A Metaphysics for Freedom*. Oxford University Press, Oxford.

Steward, H. (2020). Agency as a two-way power: a defence. *The Monist*, 103(3):342–355.

Strawson, G. (1986). On the inevitability of freedom (from the compatibilist point of view). *American Philosophical Quarterly*, 23(4):393–400.

Taylor, R. (1966). *Action and Purpose*. Prentice-Hall, Englewood Cliffs, NJ.

Vetter, B. (2014). Dispositions without conditionals. *Mind*, 123(489):129–156.

Vetter, B. (2015). *Potentiality*. Oxford University Press, Oxford.

Whittle, A. (2010). Dispositional abilities. *Philosophers' Imprint*, 10(12):1–23.