Two-Way Powers as Derivative Powers

Andrei A. Buckareff
Marist College
andrei.buckareff@marist.edu

Abstract: Some philosophers working on the metaphysics of agency argue that if agency is understood in terms of settling the truth of some matters, then the power required for the exercise of intentional agency is an irreducible two-way power to either make it true that *p* or not-*p*. In this paper, I raise two problems for theories of agency that countenance irreducible two-way powers. I first argue that on the recent accounts, we lack an adequate framework for explaining exercises of agency by the reasons of agents. Second, I argue that accepting ontologically irreducible two-way powers into one's metaphysic of agency implies an ontological commitment to substance dualism. I offer an ontologically less-costly alternative to irreducible two-way powers. I argue that a reductive account of two-way powers in terms of what George Molnar called "derivative powers" should be accepted. The reductive account can provide us with the truthmakers for talk about two-way powers. Moreover, the reductive account does not share the liabilities of accepting irreducible two-way powers.

1. Introduction

"Ontology is, as C.B. Martin liked to put it, a package deal. Ontology must be approached from the bottom up. If you have no patience for such things, you would be well advised to look elsewhere for philosophical issues to tackle" –John Heil (2017, 48).

In *Metaphysics Θ,*[1] Aristotle introduces a distinction between rational powers and

non-rational powers (1046a36-1046b4). Additionally, he distinguishes one-way

powers (which are manifested in only one way in response to some activation

conditions) from two-way powers (which can be manifested in either of two

---

[1] The edition I am here relying on is C.D.C Reeve's 2016 translation.

opposite ways) (1046b4-7). Finally, he identifies one-way powers with non-rational powers and two-way powers with rational powers.

Recently, some philosophers working on the metaphysics of agency (most of whom explicitly tip their hat to Aristotle) have emphasized the need for agents to possess ontologically irreducible two-way powers as a necessary condition not only for free will, but for intentional agency more generally. Specifically, these authors argue that agency is characterized by the manifestation of a strongly emergent *two-way power* either to do *A* or not-*A* at the time intentional agency is exercised.[2]

In this paper, I assume that the *concept* of two-way powers may be indispensable, particularly for how we represent ourselves and others as practical decision-makers. I assume, further, that we cannot reduce the concept of a two-way power to more basic concepts.[3] But, while I assume that we cannot and should not attempt to reduce the concept of two-way powers, we can and should dispense with *ontologically irreducible* two-way powers. Specifically, I argue that such powers can be ontologically reduced to what George Molnar (2003) referred to as "derivative powers" in his work on the ontology of causal powers.[4]

---

[2] See, for instance, Alvarez 2013; Kenny 1989; Lowe 2008, 2013a, and 2013b; Mayr 2011; Pink 2008; and Steward 2012.

[3] Whether any reduction of the *concept* of a two-way power is actually possible is something I leave as an open question. This is because I have no settled views on this matter. Hence, I shall simply assume that it is an irreducible concept and leave the question of conceptual reduction for another occasion.

[4] See Frost forthcoming for another recent critique of some current defenses of two-way powers. Specifically, he argues that recent proposals cannot avoid collapsing into accounts involving the activity of one-way powers. He suggests that a theory closer to the view proposed by Aristotle can avoid the challenges he raises.

I proceed as follows. First, in the interest of clarifying my target, I begin by outlining some generic features of two-way powers—including some minor points of disagreement among defenders. Next, in order to motivate exploring an ontologically reductive alternative to irreducible two-way powers, I consider two worries: one is explanatory and the other is metaphysical. The explanatory worry is over the role of reasons in explaining the manifestations of two-way powers. The metaphysical concern is over substance dualism being an apparent ontological commitment of accepting two-way powers. The remainder of the essay is devoted to the presentation of an ontologically reductive account of two-way powers as derivative powers,[5] along with the consideration of two objections to my alternative.

2. Two-way powers

Suppose that the concept of intentional *agency* is best understood in terms of *settling* (Steward 2012 and Clancy 2013). At least in the case of human agents, it will be true that an agent's capacity for intentional agency is manifested (and, hence, the agent exercises intentional agency) when an agent settles the truth of p by acting or refraining from acting. Therefore, the capacity to exercise intentional agency is, at least in part, the capacity to settle the truth of p.

I find that the most salient examples of representing ourselves as settling involve making practical decisions between options. Such examples suggest the

[5] Henceforth in this paper I will largely dispense with referring to 'ontological reduction' and its cognates. Unless specified otherwise, I should be understood to be referring to *ontological reduction* by the term 'reduction'.

need to conceive of ourselves as in possession of a two-way power because in

making practical decisions we represent ourselves as possessing the power to select

either of at least two alternatives. Thus, I assume in the following that it is not

obvious that the concept of two-way powers is essential to understanding *all*

intentional agency. I presuppose that a tacit assumption we make about ourselves in

representing ourselves as *decision-makers* with the power to select between options

is that we are exercising a two-way power when we make practical decisions.

Regarding the nature of practical decisions, I identify them with mental

actions of forming an intention. More specifically, practical decisions are actions of

intention-formation directed at settling some practical uncertainty over whether to

A or not to *A.* This understanding of practical decisions is similar to Alfred R. Mele's

(2003 and 2017). But while he takes practical decisions to be *momentary* mental

actions whereby an agent settles some practical uncertainty, I do not add the

restriction that decisions are momentary. The action can be momentary or

extended. Therefore, I assume that decision-making may be identical with an action

of extended deliberation, or it may be a momentary mental action that is identical

with what some have in mind in talking about *choosing*. The process of decision-

making may or may not involve the performance of the act of choosing. What is

important is that an agent making a practical decision is performing an action of

forming an intention about what to do among some options. So, in brief, practical

decision-making is a mental action that is aimed at settling some practical

uncertainty that involves an agent taking an active role in the acquisition of an

intention (hence the agent's 'forming' an intention rather than automatically

acquiring it in response to practical reasons). Importantly, again, I assume that

agents making decisions represent themselves as having a two-way power to decide

between options.[6]

While I am happy to concede that agents making practical decisions

represent themselves as exercising a two-way power, I am skeptical about the more

general assertion that any representation of an agent settling the truth of p in cases

other than decision-making would include an ontological commitment to

irreducible two-way powers. Most contemporary proponents of two-way powers in

theorizing about intentional agency have insisted that the power to settle whether p

requires that agents possess irreducible two-way powers. Hence, they have asserted

that _any_ exercise of intentional agency involves the manifestation of a two-way

power. For instance, Erasmus Mayr takes what he identifies as the "active powers"

that are characteristic of human agents that are active in exercising agency to be

"two-way powers which the agent can exercise or refrain from exercising" (2011,

231). And, while she denies that such two-way powers are unique to humans, Helen

Steward underscores that, on her account, the exercise of the power "to settle _which_

of [many] courses of action becomes the actual one" in exercising intentional agency

---

[6] Most of the authors I discuss either explicitly endorse an account of two-way powers on which their exercise extends to mental actions (e.g., Kenny 1989, Lowe 2008 and Steward 2012) or, while they are silent on mental actions (e.g., Mayr 2011), their theory can be extended to mental agency. Oddly, at least one—viz., Maria Alvarez (2013)—apparently denies that mental actions involve the activity of two-way powers. This is especially odd since Alvarez identifies exercising agency with exercising such a power. The implication is that mental actions like deciding how to act are not exercises of agency since they do not consist in causing the right sort of event (ibid., 106-107). So while Alvarez will continue to be mentioned, I do so being mindful of the fact that she would resist agreeing with me that practical decisions are good candidates to focus on in thinking about two-way powers.

involves the exercise of "the two-way power of agency" (Steward 2012, 173). On the sort of view these authors represent, there is no agency or agent who is producing outcomes if there are no irreducible two-way powers, since the manifestation of a two-way power is necessary for some behavior to involve an exercise of agency.

What *are* two-way powers, exactly? It may first be best to say something general about all powers. I will assume that all powers are properties of objects, and properties are ways objects are. Objects are either reducible to bundles of properties or irreducible substances. In particular, I assume that powers are identical with the dispositional properties of objects.[7] I assume that properties are either particulars (tropes or modes of substances) or immanent universals that are wholly present in their property-instances. So, to be more precise, the individual powers possessed by objects are either properties (understood as particular modes of objects) or particular property-instances (where properties are understood as immanent universals). Such an assumption about powers is not terribly controversial these days in the literature on the ontology of powers. But, among prominent defenders of two-way powers, there is a plurality of views. While some (e.g., Kenny 1989; Lowe 2008, 2013a, and 2013b; and Mayr 2011) identify powers with properties, others are silent on the matter (e.g., Alvarez 2013) or express

---

[7] With Martin 2008, Heil 2003 and 2012, Jacobs 2011, Jaworski 2016, Mumford 1998, and others, I assume that all of the properties of objects are not just dispositional properties, but they are *powerful qualities*. So there are no purely dispositional properties or purely categorical properties. Rather, under one description all properties are categorical and under another they are dispositional. But this assumption is not important for what I am doing here. (And for an argument to the effect that the distinction between pure powers and powerful qualities is not ontologically deep, see Taylor 2018.) For my purposes, I just merely need the assumption that some properties of objects are dispositional properties and that the causal powers of objects are identical with such properties.

sentiments inimical to any such identification (e.g., Steward 2012, 222-223). In defense of identifying powers with properties, I find it puzzling how a power can fail to be a property (or an instance of a property) since it is a *way* that an object is. That is, a power characterizes an object. Moreover, if two-way powers are basic powers of agents, as the proponents of two-way powers in the philosophy of agency insist, then it is hard to see how they are basic *features* of agents without being properties. Ergo, it seems that the denial of identifying powers with properties (or their instances) rests on either some confusion about what a property is or else a commitment to a view of properties on which they (or their instances) are not in space-time. I will, therefore, treat the assumption that powers are properties as relatively innocuous, being mindful of the fact that some might resist any such identification.

If we wish to make headway on understanding *two-way powers* it helps to contrast them with *one-way powers*. One-way powers are *causal* powers manifested in *one specified way* when partnered with a specific manifestation partner or constellation of partners. For instance, when there is just a neutral chlorine atom with which it interacts, a neutral sodium atom will manifest its power to lose an electron to the chlorine atom, which has the power to gain the electron from the sodium atom.

While one-way powers manifest only in a specific way when partnered with some reciprocal manifestation partners, the term 'one-way power' is deceptive. Many one-way powers may be manifested in different ways, contribute to various outcomes in a causal process, and they cooperate with other powers to bring about

outcomes. So, many one-way powers are described as *multi-track, pleiotropic*, and contributors to *polygenic* effects.

First, many one-way powers are *multi-track* because they are directed at a range of different manifestations in response to interacting with any number of other causal powers of objects that serve as potential reciprocal manifestation partners (Martin 2007, 54-56). So, for instance, the roundness of a ball is directed at rolling on a surface that has the properties of smoothness and the appropriate density. But the roundness is also directed at making an impression on surfaces with the appropriate elasticity. The roundness is directed at other manifestations when partnered with other properties of objects.

Second, most one-way causal powers are *pleiotropic* because, in causal processes, they contribute to the causal production of many different outcomes (Molnar 2003, 194). For instance, the roundness of a ball not only contributes to the ball's rolling on a smooth, dense surface, but, at the same time, it contributes to the production of certain sounds, and perceptual experiences in an onlooker who may be watching it. The various outcomes are all consequences of the interactions of the various causal powers responsible for the ball's rolling, but also other causal powers in the vicinity with which the ball interacts.

Finally, the outcomes of causal processes involving the manifestations of a collection of one-way causal powers are *polygenic*. That is, they are either the causal outcome of the myriad manifesting causal powers enabling a substance to produce

an outcome or the manifesting powers are themselves the direct cause of the outcomes.[8]

Some one-way powers are not multi-track and some do not even require a partner to serve as a stimulus for their manifestations. Such _merely spontaneous powers_ are manifested without any manifestation partner (e.g., some quantity of strontium-90's power to beta-decay).

Two-way powers are quite different from one-way powers. For one, most of the prominent contemporary proponents of two-way powers take them to be emergent powers (see Lowe 2008, chapter 5; Mayr 2011, chapter 9; and Steward 2012, chapter 8).[9] More specifically, they are _strongly_ emergent and not merely _weakly_ emergent. Regarding weak emergence, on the most common account, the _A_s are weakly emergent from the _B_s if and only if a description or explanation of the _A_s cannot be deduced, calculated, computed, or predicted solely from what is known about the _B_s (Heil 2017, 44; Kim 2010b, 86-87).[10] This does not preclude the possibility of the _A_s being _inductively predictable_. If it has been observed that the _A_s are present when the _B_s are present and we can reliably predict that something that

---

[8] See Ingthorsson 2002, Molnar 2003, Chakravarrty 2005, Mumford and Anjum 2011, Williams 2014, Heil 2012, and Buckareff 2017 for accounts of causation that focus on the interacting causal powers of objects manifesting and cooperating to produce polygenic outcomes. See Lowe 2008 and Whittle 2016 for accounts of causal powers enabling a substance to cause outcomes. See Buckareff 2017 for a critique of Whittle 2016.

[9] In conversation on November 17, 2017, at the Mental Action and Ontology of Mind workshop at the University of London, Maria Alvarez expressed a commitment to taking two-way powers as emergent powers.

[10] Mark Bedau offers a slightly more robust account of weak emergence. The _A_s would be weakly emergent from the _B_s if and only if the _A_s can be derived o_nly by simulation_ from the _B_s and the external conditions of the system of which the _B_s are a part (Bedau 1997, 378).

has the *B*s will have the *A*s, the *A*s may still be weakly emergent (Kim 2010a, 13).

What is precluded, according to Jaegwon Kim, is *theoretical predictability*. Knowing

everything about the *B*s alone is not sufficient for a reliable prediction of the *A*s

(ibid., 14).

Weak emergence is entirely epistemological. If the *A*s are merely weakly

emergent from the *B*s, there is no ontological addition with the *A*s. If the *A*s are

weakly emergent powers of some complex object whose properties (including the

*B*s) are systematically integrated in some way, then I suggest that the *A*s are weakly

emergent *derivative* powers of the object (more on derivative powers in section 4,

below). If the *A*s are predictable from the *B*s and, hence, not weakly emergent, they

are merely *resultant* powers of the complex object.

Strong emergence is ontological. Put in terms of powers, the *A*s are strongly

emergent from the *B*s if and only if the *A*s are weakly emergent from the *B*s <u>and</u>

contribute some novel powers to their possessors that go beyond those conferred

by the *B*s (Heil 2017, 44-45; Kim 2010b, 87). If the *A*s are strongly emergent, then

they are *basic* powers of the object that possesses them (more on this in section 4).

While strong emergence implies weak emergence, weak emergence does not imply

strong emergence.

The second, most important difference between a two-way power and any

one-way power is that a two-way power is not directed at any *specific*

manifestation. A two-way power can be manifested in a different way given the

same exact conditions. If a one-way power *P* is directed at a particular manifestation

with *P** and is partnered with *P**, then *ceteris paribus P* will always manifest in the

same way with *P**. But, if a two-way power *Q* is partnered with *Q**, it can be

manifested in different ways. So, according to current accounts of two-way powers,

if an agent is deciding between *A*-ing and *B*-ing and has reasons that favor both (and

even favor one over the other), it is possible that *Q* be manifested in either deciding

to *A* or *B*, or even in refraining from doing either. That is to say that the agent

possessing *Q* has the power to decide *either* to *A* or *B* (or refrain from either).

Most contemporary proponents of two-way powers identify two-way powers

as *causal* powers that are at least causally *relevant* in the production of action. Some

hold that having a two-way power *qua* property causally *enables* an agent *qua*

substance to causally produce an outcome, such as the acquisition of an intention in

decision-making (Mayr 2011, 213-232). In making a decision, an agent manifests

this power in causing the formation of an intention. And, along similar lines, others

identify actions with the exercise of the two-way power of agency when an agent

causes an outcome (Steward 2012, 199).

Others take two-way powers to be non-causal *spontaneous* powers that are

responsive to reasons. They are, thus, distinctively *rational powers.* For instance, E.

J. Lowe contends that the will is a two-way power. It is a rational power. Exercising

this power involves the production of outcomes such as bodily movements (Lowe

2008, 176-178, 187-190; 2013a, 164-171; and 2013b, 173-179). While this may

look like a causal power, it is not, according to Lowe, since a two-way power may be

manifested without any effect resulting (2008, 150). I follow Lowe in taking a two-

way power to be a rational power manifested in response to the presence of reasons

for action. Moreover, I expect that most of the current proponents of irreducible

two-way powers in theorizing about agency would accept that they are rational powers.[11] But, contra Lowe (2008, 154-157), I contend that even if two-way powers are rational powers, they are *causal* powers whose manifestations do not always have actions as outcomes. In cases of acting, they have mental activity or bodily activity as the outcome of their manifestation. In cases of basic omissions, such powers manifest in an agent's refraining from acting but remain "at the ready" to contribute to causing an output should circumstances change. Finally, they may be manifested in cases of non-basic omission. For instance, an agent may be truthfully described as refraining from raising their arm *by* maintaining the continuation of some state of affairs such as keeping their arm at rest.[12]

Proponents of versions of agent-causalism have been the primary defenders of two-way powers in theorizing about intentional agency. This is even true of Lowe, whose views actually come closer to those of the other proponents of two-way powers than he may have been willing to admit. For instance, he has contended that human agents "can only cause anything *by acting in some* way" (2013b, 175). This is very similar to the views of other proponents of two-way powers.[13] For instance, Erasmus Mayr asserts that "basic physical actions can also be considered

---

[11] The only possible exception is Helen Steward (2012).

[12] Thanks to Michael Brent for suggesting this sort of case.

[13] And all of these authors approximate the position of Thomas Reid, who advocated two-way powers (see 1788/1969, 259). Reid identified what he referred to as "active power" as "a quality in the cause which enables it to produce the *effect.*" And he identified the manifestation of active power in producing effects with "*action, agency, efficiency*" (1788/1969, 268).

as agent-causings" (2011, 224). Helen Steward contends that actions are events "that are causings of bodily movements and changes *by agents.* Causation by actions is therefore just causation by causings by agents" (2012, 205).[14] However, while recent proponents of two-way powers have almost uniformly endorsed versions of agent-causalism, I cannot think of any reason why a commitment to two-way powers would fail to be compatible with an understanding of them as among the causes that directly *produce* outcomes. While I am not aware of any proponents of such a view, it certainly does not seem ruled out by having a theory of agency that is ontologically committed to the existence of two-way powers.

Finally, while some proponents of two-way powers insist that the manifestation of a two-way power in exercising intentional agency is incompatible with causal determinism (e.g., Lowe 2008 and Steward 2012), others are silent on this question (Alvarez 2013 and Mayr 2011).[15] For this reason, I will ignore the question of whether or not the exercise of intentional agency is compatible with determinism. My target is the putative need for such powers to account for intentional agency, especially in practical decision-making.[16] I will take a neutral

---

[14] The reference to bodily movements is deceptive since it may suggest to some that Steward does not think that mental actions are caused this way. But Steward is clear that she takes mental actions to involve a kind of bodily movement in 2012, 32-33.

[15] For a defense of an explicitly compatibilist account of two-way powers in agency, see Frost 2013. In correspondence (June 30, 2017), Frost indicated that he is non-committal about the existence of irreducible two-way powers but has doubts.

[16] Some who favor a view of agency based on an ontology of causal powers that eschews two-way powers argue that we should understand causal processes in agency to be nondeterministic. See Mumford and Anjum 2014, 2015a, and 2015b. For replies to Mumford and Anjum, see Franklin 2014 and Mackie 2014. Mumford and Anjum (2011) take all causal production to be nonnecessitating. For critique, see Williams 2014. For a proposal that shares common features with Mumford and Anjum's view but is still quite different (emphasizing a causal role for the reasons of agents as causally structuring the propensity

stance here on whether or not exercising intentional agency is essentially non-deterministic.

3. Explanatory and metaphysical worries

Suppose we accept that agents possess ontologically irreducible two-way powers. The relevant type of power, at least in humans, is an irreducible *rational* power that I will assume is at least manifested in practical decision-making when faced with alternatives. *Qua* rational power, it is a power that is manifested in response to reasons for action. And *qua* irreducible power, it is a basic property of an agent.

In this section, I will focus on two difficulties faced by current proposals in the metaphysics of agency that countenance such two-way powers. Specifically, I will first argue that the accounts on offer have difficulty explaining why a two-way power is manifested the way it is in light of an agent's reasons for deciding in a particular way. The second problem is over an ontological commitment of such two-way powers. Specifically, I will argue that a metaphysic of agency that includes irreducible two-way powers is ontologically committed to some species of substance dualism.

3.1. How do reasons explain the manifestations of two-way powers?

---

of agent-causal power to produce an outcome with an objective probability between (0,1)) see O'Connor 2009a, 2009b, and Jacobs and O'Connor 2013. Others who endorse a causal powers theory of causation in their theory of agency are silent on whether causal processes involving manifesting causal powers involve the necessitation of outcomes. See, for instance, Buckareff 2018 and Stout 2002, 2006, 2007, 2010, and 2012.

Proponents of two-way powers say very little about how to explain the manifestations of two-way powers *qua* rational powers. While some (e.g., Lowe 2008 and Mayr 2011) say more than others, the accounts they offer leave much to be desired. What is revealing about these accounts is how little they have in common with the actual views of Aristotle. In fact, they are more like the views of Medieval voluntarists. Anyone familiar with the Medieval debate between the intellectualists and the voluntarists will recognize that, if I am right, many prominent proponents of two-way powers today endorse a view that is more voluntarist than Aristotelian. As such, the contemporary theories share the same liabilities of their Medieval antecedents.

While they are understood as spontaneous/active, two-way powers, *qua* rational powers, are not meant by their proponents to be regarded as arational, manifesting indiscriminately. For instance, Lowe clarifies that by characterizing a two-way power as spontaneous what he means is that no prior occurrences can count as the cause of its activation (2008, 150). They are, effectively, self-activated. Mayr writes that as an active power, the power of agency is manifested largely independently of "specific external circumstance" (2011, 219). My worry here is that, given their overemphasis upon the spontaneity of two-way powers and the independence of manifestations from the activity of other powers—particularly those that are the constitutive powers of reasons—proponents of two-way powers do not have an adequate story to tell about the manifestation conditions for such powers *qua* rational powers. Hence, their theory of intentional agency is

explanatorily thin, leaving us with gaps in our understanding of the etiology of intentional agency.

On the view of proponents of two-way powers, reasons are *necessary conditions* for the exercise or manifestation of a two-way power (Frost 2013, 613). Differently stated, reasons for action are the *sine qua non* for the exercise of two-way powers *qua* rational powers. Examples of this include Mayr's account on which an agent is following "a standard of success or correctness provided by [their] reason" (2011, 292). A standard of success is what the agent follows in their exercise of agency in order to achieve their goal. Lowe's account amounts to a story about the reasons of which an agent was aware at the time they made a decision (2008, 189-190). Lowe balks at the demands of philosophers for a deeper story, comparing those who would not be satisfied with a *just-so* story to "little children" who "sometimes don't know when to stop asking 'why?'" (ibid., 190). Similarly, Helen Steward writes of reasons as playing an influencing role, with *agents* determining what they will do in response to reasons of which they are aware (2012, 151). Things differ little with other proponents of two-way powers. The reasons (whether understood as states of affairs external to the agent that favor a course of action[17] or as internal representational states of an agent[18])—more specifically, their constituent causal powers—are not active partners that interact with a two-way power in a causal process to generate a particular outcome. So how

---

[17] This is the view assumed by Alvarez 2010, Lowe 2008, and Mayr 2011.

[18] Steward 2012 at least allows that reasons may be the internal representational states of agents. Kenny 1989 treats wants of agents as reason-giving.

do they influence the activation of an agent's two-way power for willing or exercising agency? What is it about reasons in virtue of which a two-way power responds to them if the story of their manifestation is not a causal story like that of one-way powers?

We can contrast the views of contemporary proponents of two-way powers with the position of Aristotle.[19] Aristotle takes states of affairs under which a two-way power may be activated to be merely necessary conditions for its manifestation (*Metaphysics* 1048a, 1-10). As such, a two-way power is conditional because, as David Charles notes, "the agent, constituted as he is, cannot exercise [a two-way power] except in certain circumstances" (1984, 24, n. 14; cf. *Metaphysics* 1048a, 15-24). In circumstances under which a two-way power can be manifested, a desire is what will activate the power one way or another (Frost 2013; Charles 1984, 58). Importantly, the action desired is discerned as good and pursuit-worthy and hence desired under the guise of the good (see *De Anima* 433a, 27-29). The desire is for an action that will allow one to achieve an end set by an agent's thought, including their practical reasoning (*Nicomachean Ethics* 1139a, 31-33). This is a very different account from what we find in the work of today's proponents of irreducible two-way powers. There are no explanatory gaps on this account. The activation of a rational power is part of a larger goal-oriented causal process involving the activity of various states of an agent that together ultimately lead to an exercise of agency.

---

[19] For further discussion of Aristotle's views and how they compare to those of Helen Steward, see Frost 2013.

The proponents of two-way powers on whose work I am focusing here have views that more closely align to those of the Medieval voluntarists than the views of Aristotle. Voluntarism stands in contrast to intellectualism.[20] Intellectualists (e.g., Siger of Brabant and Godfrey of Fontaines) emphasized the primacy of the intellect over the will. The will is moved by the intellect. For instance, while allowing that the will is a rational power that "extend[s] to opposites" (*Quodlibet* 8, q. 6, n. 27),[21] Godfrey of Fontaines argued that if one asserts that "to be able to determine itself belongs to the will from its own nature and not to the intellect, the proposed view is arrived at without a rational basis" (*Quodlibet* 8, q. 6, n. 38). He goes further, arguing that "just as the object of the will actuates the will in line with the way it is apprehended by reason under that aspect under which it is naturally suited to move the will, so too the object of the will determines the will, and the will does not [determine] itself" (*Quodlibet* 8, q. 6, n. 44). Thus, Godfrey seems to take the interaction of the intellect and will (which are both powers[22]) to suffice for the will to be moved (*Quodlibet* 8, q. 6, n. 44; Quodlibet 15, q. 4, n. 4).

Voluntarists reverse the order of priority with respect to the relationship between the will and the intellect. They are united in understanding the will as an

---

[20] For an excellent brief survey of the Medieval debate, see Hoffman 2010. Of course, as with any such debate in the history of philosophy, there are some figures who resist easy classification as either voluntarists or intellectualists; and the views of some vary in different sources.

[21] All of the translations of Godfrey of Fontaines that follow are from Neil Lewis's translation (2019).

[22] The intellect is a "free power in reason" (*Quodlibet* 8, q. 6, nn. 111). The will is a rational power that is responsive to reasons given by the intellect (*Quodlibet* 8, q. 6, n. 27).

essentially free power that is not moved by the intellect. William of Auvergne articulates this commitment clearly when he writes that "the will is in itself most free and in its own power in every respect with regard to its operation . . . , and for this reason it is able to correct and direct itself" (2000, 97). He goes further, describing the will as like a king with the power to command. Reason is like a counselor offering advice that can be followed or ignored by the will (ibid., 126). In *Quodlibet* XIV, Question 5, Henry of Ghent defines the will as freer than the intellect. Unlike the freedom of the intellect, the freedom of the will "is the faculty by which it is able to proceed to its act by which it acquires its good from a spontaneous principle in itself and without any impulse or interference from anything else" (Henry of Ghent 1993, 81). Finally, John Duns Scotus—perhaps the most well-known of the voluntarists, in his *Questions on the Metaphysics IX,* q. 15, describes the intellect as "showing and directing" and the will as "inclining and commanding." He goes on to elaborate on their nature, noting that intellect is a one-way power and will a two-way power (1997, 141). And in his *Opus oxoniense* II, dist. 42, qq. 1-4; nn. 10-11, Duns Scotus affirms the primacy of the will, writing that "if the will turns towards the same thing as the intellect, it confirms the intellect in its action." He adds in the same text that "the will with respect to the intellect is the superior agent. . . ." (1997, 151). Arguably, what we find in the works of the voluntarists is a view similar to Aristotle's in one respect. The intellect provides the circumstances that are the *sine qua non* for the activation of the will as a rational power. But, unlike Aristotle, there is no role for desire as an efficient cause of its activation. Finally, there is no other story that is offered about the activation of the will (such as we find

in the intellectualists like Godfrey of Fontaines). Why it manifests in one particular way is never explained (apart from a possible *ex post facto* story an agent may tell us that may or may not be accurate).

The similarities between the voluntarist position and what we find in contemporary defenses of two-way powers should not be lost on the reader. The importance of this comparison is that the accounts of two-way powers on offer today have resurrected (whether wittingly or not) an understanding of the will/power of agency on which its activation is left underexplained by an agent's reasons for action. They are underexplained because an agent's reasons, like many other structuring factors that an agent's exercise of a two-way power depends upon, do not provide anything like an explanation for why the power was exercised the way it was.

I should be clear that what I am not demanding is that we have an account of *contrastive* reason-explanations. I am merely stating that we have no account on offer that can allow us to give a principled explanation in terms of an agent's reasons for *why* an agent's power was exercised the way it was and *when* it was manifested. Neither the accounts offered by Aristotle nor Godfrey of Fontaines face similar difficulties; and, as I hope will be evident by the conclusion of section four of this chapter, the theory I put forth will not face this worry.

3.2. A metaphysical worry: the unavoidability of substance dualism for the proponent of two-way powers

Suppose we accept ontologically irreducible two-way powers of agents in our metaphysic of agency. The relevant type of power is an irreducible rational power. Such rational powers are intrinsic psychological properties. Moreover, such properties, assuming they are basic powers (i.e., fundamental intrinsic dispositional properties of objects), are not ontologically reducible to physical powers. They are strongly emergent powers that are in place when certain conditions are satisfied at the level of the emergence base. If this is right, then a commitment to irreducible two-way powers in our metaphysic of intentional agency implies an ontological commitment to property dualism in our metaphysic of mind, more generally.

Some may regard an ontological commitment to property dualism as an acceptable consequence, since many philosophers these days embrace property dualism under the moniker of "non-reductive physicalism."[23] Many seem to think that property dualism is consistent with substance physicalism. Thus, some of the properties of physical substances are assumed to be mental properties that are not reducible to physical properties. But, this view is not as innocent as many seem to think.

Apart from the common worries for property dualism raised by versions of the causal exclusion argument in the literature on mental causation (Kim 2005), there may be another worry about the ontological implications of property dualism.

---

[23] Jaegwon Kim has contended that the rise of non-reductive physicalism as the "new orthodoxy simply amount[s] to the resurgence of emergentism" (2010b, 10).

Specifically, Susan Schneider (2012) has recently argued that property dualism entails substance dualism.[24]

Schneider's argument does not rest so much on whether properties are particulars (tropes or modes) or immanent universals. The problem will be the same regardless of whether properties are understood as particulars or immanent universals.

There are two versions of Schneider's argument. The first assumes a bundle theory of substance on which substances are bundles of properties or property-instances that stand in a relation of compresence to one another. The properties of a substance on such a view are components of the substance. Any addition of properties would affect the identity of any substance. Now, if we accept a dualism of properties, Schneider argues, then, assuming the mind is a substance, the mind is not a physical substance. It is either a hybrid substance (a bundle of both mental properties and physical properties) or else there are two interacting substances: a physical substance (a bundle of physical properties) and a mental substance (a bundle of mental properties) (Schneider 2012, 64-67). In either case, we have a dualism of substances, not just properties: hybrid substances or mental substances and physical substances.

What if we have irreducible substances as a fundamental ontological category—as substrata, if you will—along with properties? The problem is the same

---

[24] The only defender of two-way powers of whom I am aware who has defended a version of (non-Cartesian) substance dualism, and who was sensitive to the connection between a commitment to dualism about properties and dualism about substances, is E.J. Lowe (2006, 2008).

for a substratum theory of substance as it is for a bundle theory. If intrinsic

properties are attributes that characterize ways that objects are, then a way that the

substances are that have them is non-physical. So, if minds are objects that have

non-physical intrinsic properties, then they are either hybrid substances or else

they are distinctively mental substances that interact with physical substances.

One may think that this problem is avoidable if we understand (*per

impossibile*) mental properties as properties of complex physical properties (i.e.,

collections of functionally integrated physical properties). In that case, a way that

the physical properties are would be non-physical. If the oddness of non-physical

physical properties is not strange enough, we would still have substance dualism.

The reason for this is that one of the ways in which non-physical physical properties

would be characterizing the substance that possesses them is as non-physical.

Therefore, it seems that an unavoidable consequence of property dualism is some

species of substance dualism.

Extending the argument, if ontologically irreducible two-way powers are

non-physical properties, which they would be according to their proponents, then a

theory of intentional agency that includes irreducible two-way powers entails

substance dualism. Note that emergence will not help here. Emergent powers are

basic properties of an object, the agent; and the agent would appear to be an

immaterial substance that is not reducible to a physical system of some sort. Thus, a

commitment to emergent two-way powers will entail a commitment to emergent

substances as well. The only way to avoid this conclusion is to deny that two-way

powers are basic powers. But, this would amount to accepting an ontologically

reductive account of two-way powers, which is precisely what the proponents of irreducible two-way powers wish to avoid.

Admittedly, the argument I have offered is fairly quick. It may be argued that some absurd consequences follow from the conclusion of my argument. Specifically, it may be argued that I have committed the composition fallacy. For instance, if properties are either components of objects or ways that objects are, and if a property is imperceptible, then it looks like the object that possesses the property is imperceptible, too.[25] In that case, even if minds were wholly physical systems, a complex object like a mind would be imperceptible if some of its properties were imperceptible. This looks like a ridiculous consequence of the sort of reasoning I have offered from non-physical properties to substance dualism.

This worry is a chimera, however. While the reasoning above would be an example of the composition fallacy, no such fallacy is committed in my own reasoning. Rather, what I am suggesting is something like the following. If a property is an attribute of an object, a way that that object is, then any object that has non-physical properties exists in that non-physical way. It may be both physical and non-physical. But, if that is so, we have a species of substance dualism on our hands—there would be physical substances and hybrid substances (that are simultaneously physical and non-physical). Nevertheless, it may be argued, we still face an absurd situation like the one where an imperceptible property possessed by

---

[25] Matt Boyle raised this objection at the conference on Mental Action and the Ontology of Mind at the University of London at which this paper was first presented.

an ordinary human agent would render the agent imperceptible. I think there are good reasons to think this counterargument fails.

Imagine a red ball that weights 1 kilogram. The ball's mass, shape, and color are all intrinsic properties of the ball. They are attributes of the object. That is, they are ways that that object is. The ball, *qua* substance, is round. Its roundness is not somehow all there is to the ball. Its roundness is not its mass, its mass is not its color, and so on. Likewise, in saying that minds are either hybrid or entirely non-physical substances owing to their having non-physical properties, we are not saying that that is all there is to minds. Rather, the broad types of properties, physical and/or non-physical, can be further divided up into properties that play various functional roles in the system owing to their causal profile. Notice that some of these properties are imperceptible.

Returning to the case of the ball, its mass is not perceivable. Rather, we detect the effects of its mass when the ball is weighed, with the mass, the rate of acceleration of gravity on Earth, and the restoring force of the spring in a scale all being manifested and serving as the polygenic cause or polygenic enablers of the ball as a cause to register a certain weight when placed on a scale. Now, is the fact that we cannot perceive the mass an intrinsic property of the ball *qua* object? It would seem it is not. Rather, it is simply a truth about the mass of any object that it cannot be perceived. The true modal claim about the imperceptibility of mass need not include among its truthmakers a property of imperceptibility. Any such move betrays a serious mistake about what sorts of ontological claims we are licensed to make on the basis of our true representations. Let me explain.

The mistake made by my interlocutor rests on an all-too-common error in the metaphysics of mind. Specifically, the objection seems to assume that if a property *P* is imperceptible, there is some property of imperceptibility that is possessed by a mind that bears *P.* The mistake being made here is to move from the fact that *P* can be truthfully described as imperceptible to ascribing a property of imperceptibility to the bearer of *P*, or, worse still, to treating the property *P* as having a property of imperceptibility. That is, my interlocutor is assuming that we can read the properties of an object directly off what we can truthfully predicate to the object in our talk about it.

C.B. Martin called this tendency to move from our predicates to properties the error of "linguisticism" and wrote that while it is "silly," it is "also endemic and largely unnoticed by many practising ontologists" (2008, 80).[26] He notes that the tendency to linguisticism derives from the uncritical acceptance of a particular understanding of Quine's criterion of ontological commitment:

> [A] theory is committed to those and only those entities to which the bound variables of the theory must be capable of referring in order that the affirmations made in the theory be true. (Quine 1948, 33)

But, it is not clear that this criterion is correct or even very useful for determining what there is. I suggest that instead of Quine's criterion we accept a truthmaker criterion such as the one presented by Ross Cameron according to which "the ontological commitments of a theory are just those things that must exist to *make*

---

[26] Heather Dyke (2007) calls this "the representational fallacy" and John Heil (2003) has referred to it as "the picture view" of reality.

true the sentences of that theory" (2008, 4). So, on the truthmaker criterion, "<*x* exists> might be made true by something other than *x*, and hence that '*a* exists' might be true according to some theory without being an ontological commitment of that theory" (ibid., 4).

What do debates over the proper criterion of ontological commitment have to do with my interlocutor's objection? '*P* is imperceptible' can be true, but that does not commit us to a *property* of *imperceptibility* possessed by the object that possesses *P* (or, for that matter, a property of imperceptibility possessed by the property *P*). Rather, it is true that '*P* is imperceptible' owing to intrinsic properties of normal perceivers being such that they lack the power required to perceive *P*. Notice that this is owing to the kind of property *P* is and the properties of cognitive systems like ourselves. There is no reason to think that *imperceptibility* is an actual component of the object or a *way* that the object in question is. That it is imperceptible is made true by the intrinsic properties of the object and the intrinsic properties of the human visual system. But imperceptibilty is not an intrinsic property of an object.

Before moving to the next section of this paper, I should be clear that my main goal in the present sub-section has not been to argue against dualism, *per se.* Rather, my goal is simply to bring to the attention of readers an ontological cost of accepting irreducible two-way powers.

In the next section, I present a reductive alternative that takes two-way powers to be derivative properties. The account is free of any obvious ontological commitments to a particular metaphysic of mind. The theory leaves it open for there

to be other reasons for accepting property dualism and, hence, substance dualism, or to accept an entirely different metaphysic of mind. For this reason, assuming it can deliver what some philosophers want from two-way powers, it should be preferred over the standard accounts that take two-way powers to be irreducible basic powers of substances.

4. Reducing Two-Way Powers

In this section, I will construct an alternative, ontologically reductive account of two-way powers. My alternative denies that two-way powers are strongly emergent basic powers. They may be weakly emergent, but there is no addition of being when an agent can be truthfully described as possessing a two-way power.

The reductive account I will offer does not take two-way powers to be simple conjunctions of one-way powers. Rather, I suggest understanding two-way powers as constellations of what George Molnar refers to as "derivative powers" (2003, 143). More specifically, they are *derivative collective powers* of sophisticated agents, which are complex cognitive systems.[27]

Molnar offers the following initial parsing of what he means to pick out by the locution, 'derivative power'.

> A power is derivative if the presence of this power in the object depends on the powers that its constituents have and the special relations in which the constituents stand to each other. (Molnar 2003, 145)

---

[27] See Aguilar and Buckareff 2016 for a defense of a gradualist metaphysic of agents that allows for agency to be scalar and admitting of various degrees of sophistication.

Non-derivative powers are basic powers. Molnar refers to the properties of the simple constituent objects of complex objects as "homogeneous properties." Properties of the complex object as a whole he refers to as "collective properties" (ibid., 143). If complex objects have basic powers, those powers are powers of emergent substances. Finally, simple objects can have basic and derivative properties. Any derivative powers of simple objects are derived laterally from their other intrinsic properties (ibid., 143).

For any derivative power, whether homogeneous or collective, the derivative power is identical with the systematically integrated conglomeration of powers and their relations to one another that together are sufficient for us to ascribe a power to a complex object (ibid., 144). The derivative power is individuated by its macro-level functional role in the system that is identical with the complex object. Thus, the collection of powers together play a functional role in a system that provides the truthmakers for describing a complex object as having a functional property that is a derivative power. "The intentional object of [a complex object's] derivative collective power is the same as the intentional object of the jointly exercised powers of the parts of [the complex object] that stand in the relevant special relations" (Molnar 2003, 145). Thus, we get something like the following schema for 'derivative power'.

> [An object S's] power to φ is derivative if the (actual or possible) joint exercise of several powers of some of [S]'s parts, when these parts stand in special relations, manifests φ-ing. (ibid.)

For instance, a molecule has the power to bond owing to at least some of the powers of its constituent atoms and the relations (including existing bonds) they stand in with respect to one another. The power of a quantity of sodium bicarbonate to neutralize hydrochloric acid is a derivative power it possesses in virtue of the powers of the constituent atoms and the bonds they have with one another. Or consider another example, a human agent's power of visual perception is a psychological property possessed by the agent *qua* animal. The power is possessed in virtue of the powers of their visual system and their relations.

A quick word about derivation and reduction is in order. Molnar suggests that there is a weak sense of 'reduction' that suits all cases of derivation. We have a reduction in this weak sense with all derivative powers when we reduce the number of independent basic powers. Derivative powers are identical with their collective grounds. But such a reduction does not amount to fewer ontological categories. There is no reduction of, say, dispositional properties to categorical properties. What I am suggesting about the category of two-way powers as derivative powers is that *they are* reducible to another category of powers, viz., one-way powers.

I suspect that some derivative powers are *weakly* emergent, but they are not *strongly* emergent. They could not be deduced or (theoretically) predicted solely from information about their basal conditions—specifically, the properties and relations of the microconstituents of the complex object to which the derivative power is attributed. Some derivative powers, however, may be *resultant* powers of a system, being predictable from the microconstituents of a system that is a complex object. Two-way powers, I will assume, are derivative powers that are weakly

emergent. From the powers that ground a derivative two-way power, we cannot deduce or (theoretically) predict the two-way power. That said, whether they are actually resultant powers rather than weakly emergent powers will not matter much for my purposes.

Molnar and others are mostly silent on what I will call the *valence* of derivative powers.[28] I assume that basic causal powers of basal simple objects have a valence of 1 on a 0 to 1 scale. Derivative causal powers have a valence anywhere between 0 and .1. I assume that the valence of a derivative causal power is a function of the collection of more basic powers from which it is derived and the causal powers with which it interacts. The strength of a power towards a particular manifestation is, in part, expressible in terms of its valence.

Opposing causal powers may more easily mask a causal power with a low valence. When we have a constellation of partnering powers that are manifesting at a time, a masked power in that process has a valence of 0 owing to its relation with any causal power directed at an opposing manifestation with an equal or greater valence. The subtractive force of a power with an equal valence results in the masking of both interacting powers. In such cases, the two powers are neutralized. But, one or more powers with a greater valence than an opposing power that is masked will have a reduced valence owing to the subtractive effect of the interaction with the power that is masked. In effect, the power or powers that serve

---

[28] What is denoted by "valence" in chemistry is similar to what I have in mind here. This locution is not commonly deployed in the literature on the ontology of causal powers and the general phenomenon it describes is often glossed over. The closest thing I have found to what I am referring to as the valence of a power is Harré and Madden's brief discussion of "augmented" and "diminished" powers (1975, 95).

to mask a power will be partially masked. Finally, some powers have their valence amplified by the additive presence of other powers.

How might derivative powers allow us to account for our intentional agency? Specifically, how do they provide us with the truthmakers for talk about two-way powers manifesting in decision-making?

Consider the following scenario. Suppose that Soren is craving cherry pie but also wants to avoid needless calories. He is presented with some cherry pie by a host at a dinner party. Ergo, he believes that some cherry pie is available and he believes that to eat the pie will result in his consuming empty calories. I should add that Soren is not on a diet, so he lacks any standing intention the content of which represents a personal policy to avoid eating dessert. Owing to his wanting to make up his mind and his knowledge that circumstances require that he do so, Soren has acquired a proximal intention to decide whether to have pie or refrain from having pie. Thus, in this scenario, we have an agent with *at least* the following mental states: *(a)* a proximal intention to make up his mind about whether to have pie, *(b)* a desire to eat some pie and a desire to refrain from consuming empty calories,[29] *(c)* a belief that both options are presented to him, and *(d)* a belief that he can either eat the pie or refrain from eating it, but not both.

---

[29] I recognize that some have pointed to a functional distinction between wants and desires. Moreover, "desire" can have multiple senses. For instance, Wayne Davis (1986) distinguishes "appetitive desires" from "volitive desires." But, for my purposes, I am using "want" and "desire" interchangeably to denote what Davis refers to as "volitive" desire. Volitive desire is a mental state with a world-to-mind direction of fit and with a functional role that is manifested in the acquisition of intentions. Of course, there is a close connection between appetitive and volitive desire (consider the case of Soren and the pie).

Onset of decision-making

I_e Desire$_{pie}$ Desire$_{\sim pie}$

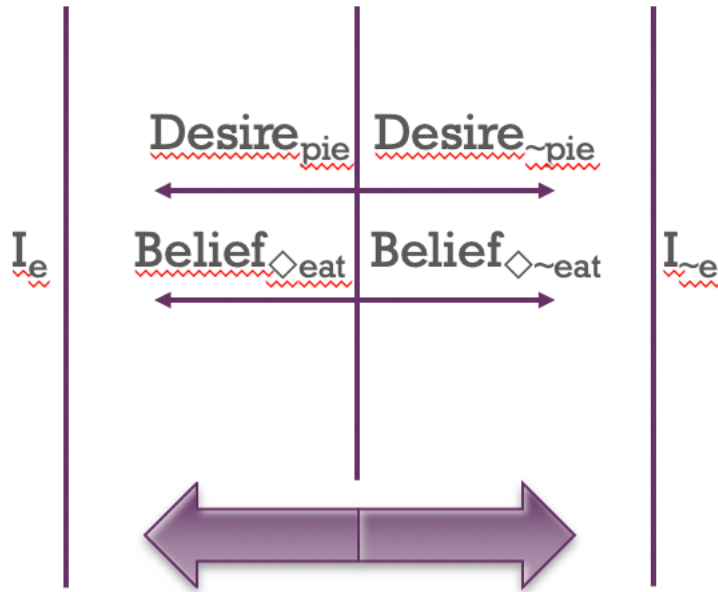Belief$_{\diamond eat}$ Belief$_{\diamond \sim eat}$ $I_{\sim e}$

Figure 1: At the onset of decision-making, the overall valence of the two-way power does not favor either of the two possible courses of action.

Soren can be truthfully described as having the two-way power to decide either to eat the pie or abstain from doing so (see *figure 1*). I will assume that the valence of the two-way power is 0.5. If Soren were more inclined towards one outcome than another, that would be perfectly consistent with the views of some proponents of two-way powers (see, for instance, Steward 2009 and 2012).

As I have described things so far, Soren is literally *ambivalent*. We have a case where there are the truthmakers sufficient to truthfully describe Soren as possessing a two-way power to decide to either eat the pie or refrain from eating it. Whichever way he decides, he has the power to decide differently. The possession of

this power provides the truthmaker for the claim that the alternative decision is possible.[30]

Once a decision is made, we can truthfully say that the two-way power is manifested when Soren either forms an intention to eat the pie or forms an intention to refrain from eating the pie. That this power is manifested is made true by the mutual manifestation of the reciprocal causal powers constitutive of Soren's derivative two-way power to decide to eat the pie or abstain from so doing.
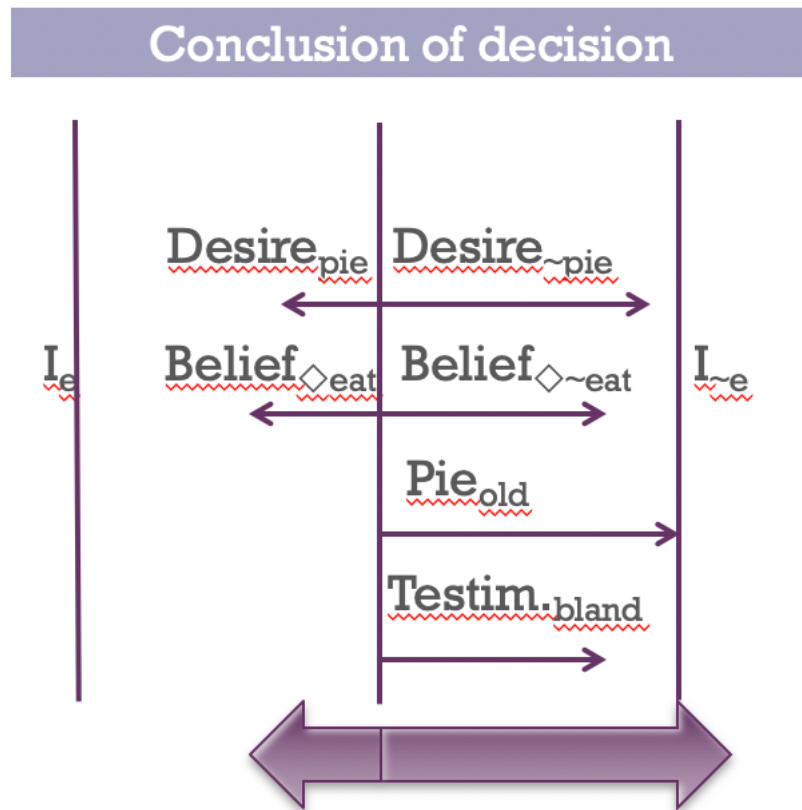

Figure 2: Decision-making concludes when the overall valence of the two-way power favors one course of action over the alternative

---

[30] See Borghini and Williams 2008 for more on powers as truthmakers for modal claims.

Importantly, in finally acquiring an intention, other powers beyond the constituent powers of the mental states would have also been constitutive of the total constellation of reciprocal powers. It is the various aggregate manifesting powers that are the polygenic cause or causal enablers of the outcome that is the acquisition of the intention (the entire process from Soren's being ambivalent to acquiring the intention would be the mental action of forming an intention). Importantly, these other powers beyond the constituent powers of the mental states contribute to the valence of the interacting powers and the valence of the final outcome (see *figure 2*). They may tip the balance toward either of the two outcomes. So, for instance, if the pie is especially aromatic, visually appealing, and Soren feels he would not be gluttonizing if he consumes the pie, then the total balance of powers would favor intending to eat some pie. That is, the power to decide to eat the pie would have a greater valence than the opposing power. But, given the opposing powers, things could have gone differently. The power to decide not to eat the pie would have a greater valence if the pie were old, visually unappealing, and Soren felt that he could not eat another bite. Finally, if the balance of basic powers were such that neither outcome was favored owing to the additive and subtractive effects of the manifestations of the various causal powers combining with the powers that are constitutive of the opposing motivating states, then we would have a zero-sum outcome. Soren would simply fail to form an intention either way. We would have a non-intentional omission to decide.[31] It would be non-intentional since it would not

---

[31] For discussion of omissions and causal processes in exercising agency, see Buckareff 2018.

be the case that Soren omits inadvertently or accidentally. He would knowingly omit to decide but does not intentionally omit to decide.

Why should we favor this account over the standard account of irreducible two-way powers? First, it is less ontologically costly. We get a theory of two-way powers that gives us what we need to truthfully talk about two-way powers without any *ontological commitment* to substance dualism.

Second, the account gives us the tools we need to understand how an agent settles whether or not he decides to *A.* It is the activity of the total agglomeration of basic objects with their powers that make up the functionally integrated system that is the agent that either produce an action or result in an omission from acting. It is up to the agent *qua* functionally integrated system to do what they do. Importantly, while it is up to an agent what they do, it is not a mystery why they decide as they do. We can point to the valence of the causal powers—including the constituent powers of the agent's reasons—that are active in the process of their exercising intentional agency. The account that emphasizes irreducible two-way powers has a disadvantage here. We merely have a "just-so" story given by some prominent defenders about why the agent decides in any given way and there is no deep-story about the interaction between the agent's two-way power with the other powers constitutive of the agent. On such a view, agency looks more like an arational process involving a merely spontaneous power, like the alpha decay of some quantity of uranium-238.

Finally, some may worry that this is a deterministic theory. What I have offered here is a reductive account of two-way powers in agency that is consistent

with a causal powers metaphysic of causation on which causal relations are non-necessitating (see Mumford and Anjum 2011).[32] So, while the account I have presented may be consistent with some compatibilist intuitions about intentional agency and determinism, nothing about the account rules out an incompatibilist understanding of intentional agency.

5. Two Objections

I am certain that proponents of irreducible two-way powers will not find the account on offer attractive. In this section, I consider only two objections. I do not think that either proves fatal to my theory of two-way powers.

5.1. Conjunctions of powers and constellations of powers

It may be argued that my reductive alternative is for all intents and purposes just a variant of the conjunctive strategy on which a two-way power is a conjunction of two-way powers. I maintain that my strategy is *not* a version of the conjunctive strategy. On my account, the two-way power is a *constellation* of multiple reciprocal powers with a total valence that is a function of the interacting constituent powers of the derivative power

Suppose, however, that my account could reasonably be interpreted as a conjunctive theory of two-way powers. This would be so given that the constellation of powers with which a two-way power is identical includes some powers that favor

---

[32] See footnote 13 above for references on the debate over whether a causal powers theory of causation implies an understanding of causation as non-necessitating.

A-ing and some that favor not-*A*-ing. It may be argued that the following worry

raised by Maria Alvarez will prove fatal to the account on offer in this paper.

> It may be tempting to think that one can understand a two-way power as the
>
> conjunction of two one-way powers. But this is not so. For one-way powers
>
> are characterized by the fact that when the conditions for their manifestation
>
> obtain, the power will be necessarily manifested. But if an agent had the
>
> ability and opportunity to ϕ and also the ability and opportunity not to ϕ at *t*,
>
> and this were the conjunction of two one-way powers, then the agent would
>
> both ϕ and not ϕ at *t*—but that is impossible. (Alvarez 2013, 109)

Though this type of reasoning may be compelling to some, the threat is chimeric.

There is no good reason to think that if the power to decide is a conjunction

of powers, then an agent with such a power will *both* decide to *A* and refrain from

deciding to *A.* That Eva will decide one way or another depends upon the

constellation of reciprocal causal powers constitutive of her reasons and power to

decide. She will simply omit to decide if the balance of her total reasons do not favor

A-ing over not-*A*-ing. And, she will decide to *A* if the balance of her total reasons

favor *A*-ing. But, whether she will decide to *A* or do otherwise (including refraining

from deciding either way), will depend upon the total valence of the derivative two-

way power*.* That the agent would do both *A* and not-*A* in cases of ambivalence is

clearly not an implication of the view.

5.2. If there is no objective chance that someone will decide differently than they

do, they are not exercising a two-way power

It may be argued that what I have presented is hardly a replacement for understanding two-way powers as irreducible. Specifically, the worry is that on my account we have lost anything that can truthfully be described as a two-way power, even if a derivative power. The worry may best be illustrated by an example.

Suppose that, in the case of Soren, he decides not to have pie. Assume, further, that the combined valence of the interacting powers manifesting in the causal process of his decision-making was close to 1. While Soren still has a desire for pie, etc., the valence of the constituent powers favoring pie is so low that, while it is possible that Soren decide differently, the possibility is remote. If that is the case, it hardly seems like Soren can be truthfully described as having had the power to decide to have the pie or not have the pie.

The worry seems misplaced. If we are actualists and are looking for truthmakers for modal claims in metaphysics, we have them in the powers of objects (including agents). Strictly speaking, Soren has powers that, together, are directed at deciding differently than he actually does. These are sufficient for making it true that he while making a decision he has the power to decide to have pie or not to have the pie (see Aristotle, *Metaphysics Θ*, 1048a, 10-24)

Finally, it is instructive to note that at least some proponents of two-way powers have made claims even stronger than what I am making. For instance, Helen Steward contends that the possession of a power is not the same thing as there being an objective chance that one will manifest that power. She writes that thinking that "having the power to φ requires the existence of some objective chance that one will φ [is a mistake] since where what puts one's φ-ing quite out of the question

is only such things as one's own wants, principles, motivations, etc." (2011, 126). If the view I have offered is problematic, this sort of position that is favored by a prominent proponent of robust, irreducible two-way powers will face similar troubles. Therefore, the remoteness of one's deciding differently should not be a problem. There is still the genuine *possibility* of one deciding differently at the time one decides on my reductive account.

6. Conclusion

Assuming that we need two-way powers for understanding our agency in decision-making (and our intentional agency, more generally), we have an alternative to the doctrine that two-way powers are basic causal powers that are not reducible to more fundamental powers. On my account, a two-way power is a derivative power that is ontologically reducible to a constellation of reciprocal causal powers. We have, then, two options on the table. Either two-way powers are irreducible, strongly emergent, *sui generis* powers or else they are derivative powers that are ontologically reducible to constellations of one-way powers. Which one should we accept?

Given the implied ontological commitments of irreducible two-way powers, I maintain that considerations of parsimony and ontological costliness alone should lead us to accept the reductive account. We get to truthfully deploy the concept of two-way powers when we invoke the concept of intentional agency in decision-making without any commitment to either more than one type of power or to a

substance dualist metaphysic of mind. Finally, the account does not suffer from the

sorts of explanatory gaps we find in non-reductive theories of two-way powers.[33]

Works Cited:

Aguilar, J. and Buckareff, A. (2015) A gradualist metaphysics of agency. In A. Buckareff, C. Moya, and S. Rosell (eds.) *Agency, Freedom, and Moral Responsibility* (30-43)*.* New York: Palgrave-Macmillan.

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

Aristotle (2016) *Metaphysics.* Trans. C.D.C. Reeve. Indianapolis: Hackett.

Aristotle (1984) *On the soul* [*De Anima*]. J.A. Smith (trans.). In J. Barnes (ed.) *The complete works of Aristotle: The revised Oxford translation,* volume one (641-692). Princeton: Princeton University Press.

Aristotle (1984) *Nicomachean Ethics.* W.D. Ross and J.O. Urmson (trans.) In J. Barnes (ed.) *The complete works of Aristotle: The revised Oxford translation,* volume one (1729-1867). Princeton: Princeton University Press.

Bedau, M. (1997) Weak emergence. *Philosophical Perspectives, 11,* 375-399.

Borghini, A. and Williams, N. (2008) A dispositional theory of possibility. *Dialectica, 62,* 21-41.

Buckareff, A. (2011) How does agent-causal power work? *The Modern Schoolman* (now *Res Philosophica*)*: Special Issue on Free Will and Moral Responsibility, 88,* 105-21.

Buckareff, A. (2017) A Critique of Substance Causation. *Philosophia, 45,* 1019-1026.

---

[33] Earlier versions of this paper were presented at the Conference on Mental Action and the Ontology of Mind at the University of London in 2017, in philosophy colloquia at Bard College and Vassar College in 2018, and at the Third Workshop on Agency in the Mountains at Copper Mountain, Colorado in 2019. I am especially grateful to my commentator at the London conference, Lilian O'Brien, for her incisive comments on my paper. I am also grateful to the members of the audience on each occasion that I presented this paper for their feedback. On the occasions I presented this paper I received very helpful feedback (in the form of objections raised) from Maria Alvarez, Matthew Boyle, Jay Elliott, Alex Grzankowski, Jeffrey Seidman, and Sebastian Watzl. I am very grateful to these audience members for their remarks. Finally, I wish to thank Kim Frost for his very helpful written comments on a draft of this paper.

Buckareff, A. (2018) I'm just sitting around doing nothing: on exercising intentional agency in omitting to act. *Synthese, 195,* 4617-4635.

Cameron, R. (2008) Truthmakers and ontological commitment: or how to deal with complex objects and mathematical ontology without getting into trouble. *Philosophical Studies, 140,* 1-18.

Chakravartty, A. (2005) Causal realism: events and processes. *Erkenntnis, 63,* 7-31.

Charles, D. (1984) *Aristotle's philosophy of action.* London: Duckworth.

Clancy, S. (2013) A strong compatibilist account of settling. *Inquiry, 56,* 653-665.

Davis, W. (1986) The two senses of desire. In J. Marks (ed.) *The ways of desire: new essays in philosophical psychology on the concept of wanting* (63-82). New York: Routledge.

Duns Scotus, J. (1997) *Duns Scotus on the will & morality.* Trans. A. Wolter and W. Frank. Washington, D.C.: Catholic University of American Press.

Dyke, H. (2008) *Metaphysics and the representational fallacy.* New York: Routledge.

Franklin, C. (2014) Powers, necessity, and determinism. *Thought: A Journal of Philosophy, 3,* 225-229.

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

Frost, K. (forthcoming) What could a two-way power be? *Topoi.*

Godfrey of Fontaines (2019) *Godfrey of Fontaines and the freedom of the will.* Trans. Neil Lewis. URL=< http://lewis.georgetown.domains/>

Harré, R. and Madden, E.H. (1975) *Causal powers: a theory of natural necessity.* Oxford: Basil Blackwell.

Heil, J. (2003) *From an ontological point of view.* New York: Oxford University Press.

Heil, J. (2012) *The universe as we find it.* New York: Oxford University Press.

Heil, J. (2017) Downward causation. In M. Paoletti and F. Orilia (eds.), *Philosophical and scientific perspectives on downward causation* (42-53). New York: Routledge.

Henry of Ghent (1993) *Quodlibetal questions on free will.* Trans. R. Teske. Milwaukee, WI: Marquette University Press.

Hoffman, T. (2010) Intellectualism and voluntarism. In R. Pasnau (ed.) *The Cambridge history of medieval philosophy* (415-427). New York: Cambridge University Press.

Ingthorsson, R. (2002) Causal production as interaction. *Metaphysica, 3,* 87-119.

Jacobs, J. (2011) Powerful qualities, not pure powers. *The Monist, 94,* 81-102.

Jacobs, J. and O'Connor, T. (2013) Agent-causation in a neo-Aristotelian metaphysics. In S. Gibb, R. Ingthorsson, and Lowe, E.J. (eds.) *Mental causation and ontology* (173-192). New York: Oxford University Press.

Jaworski, W. (2016) *Structure and the metaphysics of mind: how hylomorphism solves the mind-body problem.* New York: Oxford University Press.

Kenny, A. (1989) *The metaphysics of mind.* New York: Oxford University Press.

Kim, J. (2005) *Physicalism, or something near enough.* Princeton: Princeton University Press.

Kim, J. (2010a) Making sense of emergence. In J. Kim, *Essays in the metaphysics of mind* (8-40). New York: Oxford University Press.

Kim, J. (2010b) "Supervenient and yet not deducible": is there a coherent concept of ontological emergence? In J. Kim, *Essays in the metaphysics of mind* (85-104). New York: Oxford University Press.

Lowe, E.J. (2006) Non-Cartesian substance dualism and the problem of mental causation. *Erkenntnis, 65,* 5-23.

Lowe, E.J. (2008) *Personal agency: the metaphysics of mind and action.* New York: Oxford University Press.

Lowe, E.J. (2013a) Substance causation, powers, and human agency. In. S. Gibb, E.J. Lowe, and R. Ingthorsson (eds.) *Mental causation and ontology* (153-172). New York: Oxford University Press.

Lowe, E.J. (2013b) The will as a rational free power. In R. Groff and J. Greco (eds.) *Powers and capacities in philosophy: the new Aristotelianism* (172-185). New York: Routledge.

Mackie, P. (2014) Mumford and Anjum on incompatibilism, powers, and determinism. *Analysis, 74,* 593-603.

Martin, C.B. (2008) *The mind in nature.* New York: Oxford University Press.

Mayr, E. (2011) *Understanding human agency.* New York: Oxford University Press.

Mele, A. (2003) *Motivation and agency.* New York: Oxford University Press.

Mele, A. (2017) *Aspects of agency: decisions, abilities, explanations, and free will.* New York: Oxford University Press.

Molnar, G. (2003) *Powers: a study in metaphysics.* New York: Oxford University Press.

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

Mumford, S. and Anjum, R. (2011) *Getting causes from powers.* New York: Oxford University Press.

Mumford, S. and Anjum R. (2014) A new argument against compatibilism. *Analysis, 74,* 20-25

Mumford, S. and Anjum R. (2015a) Freedom and control: on the modality of free will. *American Philosophical Quarterly, 52,* 1-11.

Mumford, S. and Anjum, R. (2015b) Powers, non-consent, and freedom. *Philosophy and Phenomenological Research, 91,* 136-152.

O'Connor, T. (2009a) Agent-causal power. In T. Handfield (ed.) *Dispositions and causes* (189-214). New York: Oxford University Press.

O'Connor, T. (2009b) Degrees of freedom. *Philosophical Explorations, 12,* 119-25.

Pink, T. (2008) Intentions and two models of human action. In B. Veerbek (ed.) *Reasons and intentions* (153-179). Aldershot: Ashgate Publishing.

Schneider, S. (2012) Why property dualists must reject substance physicalism. *Philosophical Studies, 157,* 61-76.

Steward, H. (2009) The truth in compatibilism and the truth of libertarianism. *Philosophical Explorations, 12,* 167-179.

Steward, H. (2012) *A metaphysics for freedom.* New York: Oxford University Press.

Quine, W. (1948) On what there is. *The Review of Metaphysics, 2,* 21-38.

Stout, R. (2002) The right structure for a causal theory of action. *Facta Philosophica, 4,* 11-24.

Stout, R. (2006) *Action.* Durham: Acumen.

Stout, R. (2007) Two ways to understand causality in agency. In A. Leist (ed.) *Action in context* (137-153). New York: de Gruyter.

Stout, R. (2010) What are you causing in acting? In J. Aguilar and A. Buckareff (eds.) *Causing human actions: new perspectives on the causal theory of action* (101-113). Cambridge, MA: The MIT Press.

Stout, R. (2012) Mechanisms that respond to reasons: an Aristotelian approach to agency. In F. O'Rourke (ed.) *Human destinies: philosophical essays in memory of Gerald Hanratty* (81-97). Notre Dame: University of Notre Dame Press.

Taylor, H. (2018) Powerful qualities and pure powers. *Philosophical Studies, 175,* 1423-1440.

William of Auvergne (2000) *The Soul.* Trans. R. Teske. Milwaukee, WI: Marquette University Press.

Williams, N. (2014) Powers: Necessity and Neighborhoods. *American Philosophical Quarterly, 51,* 357-371.