



## Aristotle's Four Causes of Action

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### ABSTRACT

Aristotle's typical procedure is to identify four causes of natural changes. Intentional action, a natural change, has standardly been treated as an exception: most think that Aristotle has the standard causalist account, according to which an intentional action is a bodily movement efficiently caused by an attitude of the appropriate sort. I show that action is not an exception to Aristotle's typical procedure: he has the resources to specify four causes of action, and thus to articulate a powerful theory of action unlike any other on offer.

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### 1. Introduction

Current philosophy of action asks what actions are and how they are brought about. Aristotle does not systematically answer these questions, but he says enough to give resources for constructing responses on his behalf. The response typically constructed is a version of the standard causal theory of action. On that theory, what makes something an action rather than an accidental aggregate of movements is that it is brought about (efficiently caused) by a psychological attitude, such as a desire or intention, or an event involving it.<sup>1</sup> Some of Aristotle's remarks, if uncarefully interpreted, might suggest standard causalism. But we should look beyond this theory as an interpretation of Aristotle's philosophy of action. The reason, which I expound in [section 2](#), is that the interpretation ignores Aristotle's customary procedure of giving four-causal accounts of natural change (*kinēsis*),<sup>2</sup> the genus of which actions are a species, without giving any reason for thinking it inapplicable to action. In so doing, it deprives Aristotle of an attractive answer to questions about what action is and how it is brought about that he can and does give (*mutatis mutandis*) in relevantly analogous cases. Aristotle thinks that human action is a species of animal self-movement, and animal self-movement is a species of natural change. Natural changes, although they are not substances and do not have causes in precisely the same way that substances do, are to be explained in terms of the four causes, or as many of them as a given natural change has [*Phys.* 2.3.194<sup>b</sup>21–2, *Metaph.* 8.4.1044<sup>a</sup>32–4]: The material cause is that out of which something comes to be, or what undergoes change from one state to another; the formal cause, what

<sup>1</sup> The most popular version is Davidson's [1963: 693], who says that Aristotle has roughly his view.

<sup>2</sup> I translate '*kinēsis*' as 'movement' for locomotive change, and 'change' for the genus that includes locomotive, qualitative, and substantial change. Translations are mine, and of the Oxford Classical Texts.

differentiates something from other things, and serves as a paradigm for its coming to be that thing; the efficient cause, the starting-point of change; the final cause, that for the sake of which something comes about. Standard causalist interpreters would need to give a principled reason why Aristotle would not want to apply his own theory of natural changes in the case of action to answer pressing questions that it is capable of answering.

This problem motivates consideration of an alternative interpretation. I argue that Aristotle thinks that animal self-movement in general, and human action in particular, should be explained in terms of his four causes: agents' bodies are material causes, underlying substrata, of their self-movements. Their active psychological attitudes are formal causes, giving actions their identity conditions and providing paradigms for coming to be as the actions that they are.<sup>3</sup> The agents themselves, qualified as self-movers in activity, are efficient causes, bringing about actions. Agents' goals are final causes, those things for the sake of which actions are performed. Systematizing Aristotle's remarks about action under his four-causal theory of natural changes provides us with a distinctive answer to what actions are and how they are brought about.<sup>4</sup>

This paper proceeds as follows. [Section 2](#) explains what kind of four-causal accounts Aristotle gives of natural changes, the genus that includes actions. [Section 3](#) spells out in detail how each of the four causes of action is construed if action is indeed to be explained in accordance with Aristotle's preferred framework for natural changes. [Section 4](#) contrasts this account with two others that depart from the standard causal theory, and argues that this account more closely reflects Aristotle's approach to understanding natural changes.

## 2. Changes and the Four Causes

Although we are perhaps most accustomed to Aristotle's four causes explaining artefacts and natural substances like organisms, he indicates that we should also refer to the four causes to explain natural changes,<sup>5</sup> or at least to as many of the four causes as

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<sup>3</sup> The psychological attitudes that I have in mind are desire (*orexis*) and decision (*prohairesis*). Following Aristotle, I sometimes use 'desire' generically for both. By 'active', I mean something like what is nowadays meant by 'occurrent', but I want the label to retain linguistic connection to Aristotle's usage.

<sup>4</sup> Coope [2007] argues that Aristotle does not give the standard causalist answer to the question of the conditions under which something counts as an action. On her view, something is my action if and only if it is an exercise of one of my causal powers. Two respects in which Coope's account differs from mine are these. First, it agrees with the standard causal theory that psychological attitudes bring about actions, which I argue is false, strictly speaking. Second, it does not situate Aristotle's account of the causation of action within his general account of the causation of natural changes. As far as I know, the only other philosopher who has articulated four Aristotelian causes of action is Natali [1999] in scattered notes in his Italian commentary on the *Nicomachean Ethics*. He does not offer sustained argument for what the four causes of action are or how they are grounded in Aristotle's texts beyond the *NE*. Neither does he relate them to Aristotle's typical four-causal accounts of natural changes. However, he furnishes an interesting list: the material cause is the set of bodily movements, the formal cause is the state of character, the efficient cause is decision, and the final cause is successful action [503n573]. Ackrill [1978: 600], in a one-sentence treatment, offers three causes of action. Formal: 'the essence or definition of the movement produced'. Efficient: 'actual desire'. Final: 'the object of desire'. Charles [2017: sec. 4] also briefly offers three: 'material changes' (material), 'skills (or capacities)' (efficient), 'goals' (final). Natali's, Ackrill's, and Charles's causes (except for Ackrill's and Charles's final cause) differ from the ones for which I argue (see notes 8, 11, 14, 26). Natali [2002] and Charles [1984] give more detailed treatments of action, which I discuss in section 4.

<sup>5</sup> Among current philosophers, Evnine [2016] argues that artefacts, organisms, and events (the genus under which action falls, on his view) should be explained in hylomorphic terms.

any particular natural change has [*Phys.* 2.3.194<sup>b</sup>21–2, *Metaph.* 8.4.1044<sup>a</sup>32–4].<sup>6</sup> Indeed, this is Aristotle's standard procedure. Sometimes he devotes entire works, or large parts thereof, to four-causal explanations of natural changes, such as animal generation [GA], respiration [*De resp.*], and sleep [*De somn.*]. One of the primary stated purposes of *De generatione et corruptione* is to give the four causes of the processes of generation and corruption in general, and not only of the things subject to such processes. Even when a study does not take a natural change as its main subject, Aristotle often includes discussions of the four causes of particular changes as part of that study. These include his accounts of concoction (*pepsis*) in *Meteorology* 4, anger in *De anima* 1, and perception in *De anima* 2.

Since natural changes are not substances [*Metaph.* 3.5.1001<sup>b</sup>29–32], they will not have four causes in precisely the same way as substances do. Nonetheless, they will ordinarily have four causes. Aristotle indicates that natural non-substances (such as natural changes) are appropriately explained in four-causal terms, but he adds that the material cause in particular will differ in kind from that of substances [*Metaph.* 8.4.1044<sup>a</sup>32–<sup>b</sup>20]. Generated substances have matter that is subject to generation and corruption. A substratum is matter, strictly speaking, only if it is subject to generation and corruption (compare [GC 1.5.320<sup>a</sup>2–3]). Natural changes do not have matter, strictly speaking, for changes themselves are not subject to generation and corruption. Rather, for natural changes there is a substratum (*τὸ ὑποκείμενον*) that undergoes the natural change. Aristotle takes having such a substratum to be a way of having a material cause [GC 1.5.320<sup>a</sup>3–5]. The earth is the material cause of an earthquake and water of waves, because earth and water, respectively, is what undergoes the change (*τὸ πάσχον*) in each case [*Meteor.* 2.8.368<sup>a</sup>32–3]. Thus, although there are differences in detail of how substances and natural changes have four causes, Aristotle gives four-causal accounts of each. It is of clear interest that he wants to give four-causal accounts of natural changes, since action is a change.<sup>7</sup>

A four-causal view of action is what we would expect, in light of Aristotle's claim that self-movements, including actions, are changes, and thus are situated in the domain of natural phenomena. In fact, it would be surprising if he were *not* interested in referring action to his theory of the four causes. Since, as we have seen, he thinks that one should investigate as many of the four causes as each thing has, and that ordinarily natural changes have four causes, interpreters who think that action does *not* have four causes have the burden of saying how many it has and why it lacks some of them. Since Aristotle thinks that actions, considered in so far as they are natural changes, are susceptible to treatment by the natural scientist, and the natural scientist's goal is to give four-causal explanations, Aristotle is in principle interested in a four-causal explanation of action. To be sure, natural science is not the only sort of science that studies action, for Aristotle; practical science is obviously concerned with the nature of action in so far as knowing about action contributes to acting well. However,

<sup>6</sup> Some things may not have all four causes: e.g. lunar eclipses and chance occurrences. Aristotle's typical project is to identify all four causes, unless he can give a reason why something would lack one or more. Bolton [2005, 2011] and Code [2015] discuss a variety of texts that show Aristotle as accomplishing this project.

<sup>7</sup> Aristotle says that an action is a kind of movement [*EE* 2.2.1220<sup>b</sup>26–7, 2.6.1222<sup>b</sup>29], prompting Bonitz [1870: 631<sup>a</sup>20] to list '*kinēsis*' first in the entry for '*praxis*'. This is compatible with the distinction between movements (*kinēseis*) and actualities (*energeiai*) at *Metaph.* 9.6.1048<sup>b</sup>18–35. There, he uses both terms in a sense that is narrower than usual. See Ackrill [1997], Morel [2007: 156], and Stein [2014: 38n15] for the distinction between the narrow and broad senses.

actions qualified as changes of a particular sort are natural phenomena, and are thus elucidated by natural science. So, it is fitting to spell out how Aristotle's remarks about action fit within his four-causal framework.

### 3. The Four Causes in Action Explanations

#### 3.1 *Material Cause*

Aristotle thinks that action, as a species of self-movement, is a natural change. On his view, the material cause of a natural change (a species of natural non-substance) is a substratum that undergoes the change [*Metaph.* 8.4.1044<sup>b</sup>7–20, *GC* 1.5.320<sup>a</sup>3–5]. What is the substratum for action, that which undergoes the change that action is? Aristotle claims frequently in *Phys.*, *DA*, and *MA* that the body is what undergoes change in cases of self-movement in general. This will hold also for action in particular. The body is action's material cause because it is the substratum that undergoes the change that action is.

One might be tempted to think that the material cause of action is the body's moving,<sup>8</sup> particularly if one thinks that the material cause always ought to constitute that of which it is the material cause, just as the elements constitute material bodies.<sup>9</sup> But there are good reasons for rejecting that notion of a material cause in the case of natural changes (of which action is an example). Recall that, for natural changes, the material cause will be a substratum that undergoes the change. Typically, Aristotle gives examples in which this substratum does not constitute that of which it is the material cause. For example, in his *Metaph.* 8.4 discussion of the causes of natural changes, the substratum for sleep is the heart or some other body part. But no body part constitutes sleep. Also in this passage, the substratum of a lunar eclipse is the moon, which does not itself constitute the eclipse. The material cause of the process of generation of animals is 'the female principle' [*GA* 1.2.716<sup>a</sup>4–7], which does not constitute the process of generation, and the earth is the material cause of earthquakes [*Meteor.* 2.8.368<sup>a</sup>33], although it does not constitute them. These cases are relevant since they are examples of natural changes, and Aristotle has reason to describe them in the way that he does: a natural change (for example, the body's moving) cannot be a substratum that has a potentiality for, or what persists through and underlies, the same change that it purportedly constitutes. But every sort of change that generable substances undergo and effect, including locomotive change, has as its material cause such a substratum [*Phys.* 1.7.190<sup>a</sup>33–4, *GC* 1.5.320<sup>a</sup>2–5]. So, the body's moving is not the material cause of the action; the body itself is. This is precisely what we should expect, given Aristotle's claim that the material cause of any natural change is a substratum that undergoes the change.

#### 3.2 *Efficient Cause*

At the beginning of *De motu animalium*, which Aristotle devotes to the causes of locomotion and action, he says that the starting-points (*archai*) of movements other than

<sup>8</sup> See, for example, Natali [1999], mentioned in note 4.

<sup>9</sup> Among recent philosophers, Evnine [2016] argues for an 'amorphic hylomorphist' view of action that makes no reference to forms, but centrally features matter as constituting that of which it is the matter. It is precisely because the body does not constitute actions that Evnine instead opts to say that the matter of action is bodily movement. Those who, unlike Evnine, countenance formal causes of action have no need to insist that the material cause of action must constitute it.

eternal movements are self-moving agents themselves [MA 1.698<sup>a</sup>7–8].<sup>10</sup> This includes self-movements. More specifically, human beings are efficient causes of their actions [EE 2.6.1222<sup>b</sup>15–23, NE 3.5.1113<sup>b</sup>18–19]. However, he also calls desires and decisions efficient causes of action (for example, [EE/NE 5/6.2.1139<sup>a</sup>31–2]). What could Aristotle mean by calling each of these an efficient cause of action? According to the standard causal theory, psychological attitudes, or events involving them, are the genuine efficient causes that bring about action, and the agent counts derivatively as an efficient cause because the attitudes are his.<sup>11</sup> However, I think that more careful attention to Aristotle's remarks on causal modalities can give us a better account, one according to which he is willing to call psychological attitudes efficient causes (although they are not efficient causes, strictly speaking) because of the particular role that they play as formal causes.

Consider a well-known instance of something that Aristotle calls an efficient cause and a formal cause: the art of building [Metaph. 12.4.1070<sup>b</sup>28–35, 7.7.1032<sup>a</sup>32–<sup>b</sup>14].<sup>12</sup> This art is said to be a form—namely, the one that informs a house—but also to count somehow as an efficient cause of the house in virtue of imposing order on building materials. But how could it be both? The key is in Aristotle's discussion of causal modalities [Phys. 2.3.195<sup>b</sup>21–8],<sup>13</sup> where he says that a builder performs the action of building not *qua* man or *qua* musical prodigy, but rather *qua* builder, and that he is qualified as a builder (and thus as building, when in activity) in virtue of the art of building. For this reason, the art of building must be included in the most precise specification of the *per se* efficient cause: namely, the builder in activity *qua* builder (that is, as practitioner of the art of building). This specification is precise because it refers to an actual efficient cause instead of a potential efficient cause (say, the builder sleeping), and to a *per se* efficient cause rather than an accidental efficient cause (say, the musical man who happens also to be a builder).

That the art of building must be mentioned in the precise specification of the *per se* efficient cause makes Aristotle comfortable in calling the art an efficient cause on some occasions. However, as we have seen, he also describes it as a formal cause. After all, it is a form in the builder's soul that qualifies him as a builder. If he has this art and is acting in accordance with it, his operations with building materials are not haphazard, but rather are directed at completion of a house. The art makes there be a determinate fact about what he is doing when engaged in the activity, and provides a paradigm for goal-directed performance of that activity. In this way, it counts as a formal cause. I will later elucidate this notion of a paradigm and formal cause. For now, I want merely to note

<sup>10</sup> The account that follows is thus restricted to a treatment of the actions of self-movers rather than including the activities of substances without matter, such as the unmoved mover.

<sup>11</sup> Ross [1957: 643], Sorabji [1974: 82–3], Ackrill [1978: 600], Charles [1984: 58], Woods [1992: 145] Natali [1999: 503n573], Corcilius [2008: 323], and Moss [2012: 9] think that, for Aristotle, psychological attitudes bring about actions as their efficient causes. For the more specific claim that, according to Aristotle, agents are causes of actions derivatively from the fact that their psychological attitudes are the efficient causes, see Irwin [1980: 121], Cooper [2013: 275], and Bobzien [2014: 96]. Frankfurt [1971], Velleman [1992], and Bratman [2007] make the more specific claim nowadays, and Mayr [2011] and Steward [2012] argue against it. Charles [2017: sec. 6] claims that psychological attitudes bring about actions as their efficient causes (with different attitudes efficiently causing different aspects of each action), but also that the agent is ineliminable since the action thus brought about is a realisation of her capacity.

<sup>12</sup> Keyt [1999: 77–8] appeals, as I do, to the example of the art of building to illustrate how something can be reckoned as both an efficient and a formal cause.

<sup>13</sup> Aristotle gives three pairs of causal modalities, each of which can apply to any of the four causes: prior and posterior (alternatively: proximate and remote), *per se* and accidental, and actual and potential.

that Aristotle's views about causal modalities permit him to refer to the art of building as an efficient cause of sorts in light of its role as a formal cause mentioned in the precise specification of the *per se* efficient cause: the builder *qua* builder. However, strictly speaking, the art of building is not an efficient cause of the house, for it does not bring about the house; the builder *qua* builder does that.

Just as the art of building can be called an efficient cause of a sort (not, strictly speaking) because it must be mentioned in a precise specification of the *per se* efficient cause of a house, desire and decision can be called efficient causes of a sort (not strictly speaking) because they must be mentioned in a precise specification of the *per se* efficient cause of action: the agent as a self-mover *qua* active in fulfilling a particular desire or decision. The self-mover cannot be the *per se* efficient cause when qualified in just any way (for example, *qua* object with mass). For this reason, qualifying the self-mover in terms of his desire or decision is vital. This is in fact what Aristotle indicates at *EE/NE* 5/6.2.1139<sup>a</sup>31–<sup>b</sup>5: a human being is a starting-point of action [<sup>b</sup>5], rather than of something else, *qua* decider, or at least *qua* desirer [<sup>a</sup>31–3, <sup>b</sup>4–5]. This qualification of the self-mover in terms of desire or decision allows us to explain why Aristotle calls decision an efficient cause of action [<sup>a</sup>31], and desires 'movers' ('*kinounta*') [*DA* 3.10.433<sup>a</sup>9–<sup>b</sup>1, *MA* 6.700<sup>b</sup>15–701<sup>a</sup>6]. His calling them so initially looks like strong evidence for the view that decision brings about action, and interpreters standardly take it as such. However, attending to Aristotle's preferred scheme of qualification that I have been describing allows us to see desires and decisions as movers in the way that the art of building is: the art does not bring about the house, but can be called an efficient cause of sorts because it qualifies one's movements as building, and thereby qualifies one as a builder, the *per se* efficient cause of the house. Likewise, desire does not bring about action, but can be called an efficient cause of sorts because it qualifies one's movement as intentional self-movement, and thereby qualifies one as the *per se* efficient cause of action.

Most of sections 3.3 and 3.4 will elaborate on this idea. Section 3.3 says how active desire and decision count as formal causes that qualify self-movers as *per se* efficient causes of actions. Section 3.4 charts the connection between active psychological attitudes and the goal-orientedness of action.

### 3.3 Formal Cause

Active psychological attitudes are plausibly described as formal causes in virtue of which one counts as acting in one way rather than in another. An Aristotelian formal cause is in general what makes something a determinate and unified thing rather than a mere accidental aggregate [*Metaph.* 8.6.1045<sup>a</sup>8–10, 20–5]. Aristotle describes it as follows [*Phys.* 2.3.194<sup>b</sup>26–9]:

And in another way, 'cause' designates the form and the paradigm, and this is the definition of what it is to be and the genera of this (for example the cause of the octave is the relation 2:1, and number in general), and the parts in the definition.

Aristotelian formal causes, unlike Platonic formal causes, are immanent proper parts of those things of which they are the formal causes.<sup>14</sup>

<sup>14</sup> Natali [1999] offers states of character as formal causes of action, but it is not clear that they could be immanent proper parts of actions. Ackrill [1978] offers 'the essence or definition of the movement produced'. This is what we seek at the most abstract level, but it does not tell us what the essence of any particular movement is.

Formal causes of actions, as active psychological attitudes, are movements [DA 3.10.433<sup>b</sup>17–18] that are immanent proper parts of further movements, actions.<sup>15</sup> They are those immanent proper parts of actions that provide their identity conditions. If I help a neighbour with a task, this might have as its formal cause a desire to benefit my neighbour, or alternatively a desire to receive a favour in return. In the former case, the action would be a beneficent action. In the latter, it would be a selfish action. It does not matter, for purposes of classifying the action, that I have a latent desire to vacation in Spain. Active psychological attitudes specify what sort of action is taking place and partially constitute what it is to be that action, as I illustrate later in this section with reference to several of Aristotle's texts.

Active desires are principles of unity for bodily movements, paradigms in accordance with which one controls one's actions. Aristotle speaks of the formal cause as a paradigm at *Phys.* 2.3.194<sup>b</sup>26. Following him, I construe such a paradigm as an immanent form in accordance with which one acts in a determinate way by neither overrunning nor falling short of the paradigm, and as what determines when one who is acting in accordance with it has achieved the goal and can stop acting. For example, one is performing the action of building, when her operations with bricks and wood have as their paradigm an active desire, which in turn has as its intentional object the goal of building a good house. This goal is simultaneously characteristic of the action of building and essential to the builder's desire being the desire that it is. For this reason, the builder would not be performing the action of building unless her desire to build a good house is the paradigm for her activity. If she moved wood and bricks around without desiring to do so, Aristotle would not call her the *per se* efficient cause of building. Since her desire has as its intentional object the goal of building a good house, this desire serves as a standard in light of which she can assess how the activity proceeds and can adjust her performance in accordance with the standard. The builder can take stock: 'Have I built what I desired to build? Almost. I must press on.' The goal itself is not the builder's paradigm. After all, it has not yet come about and is not a proper part of the action. Rather, her active orientation towards the goal—namely, her active desire—is what makes the difference for what and how she builds.

Desire makes a difference for action, in two related ways. First, it determines whether something counts as an action at all rather than as a non-actional natural change, such as respiration [*MA* 11.703<sup>b</sup>3–11]. The latter can occur without desire, whereas the former cannot. Second, desire or decision is 'the deciding factor' (*τὸ κύριον*) for whether *this* action or a different sort of action is performed [*Metaph.* 9.5.1048<sup>a</sup>10–11]. Desire or decision is the formal cause in virtue of which the action has the identity conditions it does rather than others.<sup>16</sup>

Aristotle often mentions this formal-causal difference-making role of desire and decision in more specific practical contexts. His standard formula consists of an announcement that he will distinguish a particular sort of action from other sorts of

<sup>15</sup> Price [2016] argues that the fact that desires and decisions are immanent proper parts of actions (rather than, say, antecedent to them) is crucial for a proper understanding of practical reasoning.

<sup>16</sup> Similar formal-causal uses of 'the deciding factor' are fairly common in Aristotle: e.g. *Metaph.* 5.27.1024<sup>a</sup>22–8, 7.10.1035<sup>b</sup>25–7, *NE* 1.10.1100<sup>b</sup>8–11 and <sup>b</sup>33, *GC* 2.9.335<sup>b</sup>34–5, *Sens.* 3.440<sup>b</sup>13–16, and among dubious works *MM* 1.12.1187<sup>b</sup>32–33. Charles [1984: 86] thinks that the *Metaph.* 9.5 passage uses 'the deciding factor' in an efficient-causal sense. Charlton [1987: 279–80] and Stein [2012: 871n32] deny this. I am willing, here as elsewhere, to recognise desire and decision as efficient causes of a sort, although not in the strict sense, because of the way that they formal-causally qualify the agent.



action with reference to agents' psychological conditions (*ὡς ἔχοντες* or *πῶς ἔχοντες*). I will discuss four such passages.

In *Politics* 5.2, Aristotle treats the formal cause of political revolution (*metabasis*). Having already labelled the citizenry as the material cause of revolution at 3.3.1276<sup>a</sup>34–<sup>b</sup>13, in 5.2.1302<sup>a</sup>24–31 he distinguishes democratic from oligarchic revolutions with reference to agents' psychological conditions (*πῶς ἔχοντες*)—namely, the sort of desire that the rebels have. He discusses the goals of revolution (which are the objects of those desires) and the factors precipitating it after this passage [1302<sup>a</sup>24–31]:

Those who desire equality rebel if they think they have less despite being equal to those who have more, but those who desire inequality and superiority rebel if they suppose that despite being unequal they do not have more but equal or less. It is possible to desire these justly or unjustly. For those who are lesser rebel so as to be equal, and those who are equal so as to be greater. The psychological condition (*πῶς ἔχοντες*) of those who rebel has now been stated.

The idea here is that determining whether the rebels desire equality or inequality is crucial for determining what *kind* of revolution is afoot—for example, whether it is democratic or oligarchic in character. Aristotle distinguishes between democrats and oligarchs: the former seek equality in all respects, the latter inequality [5.1.1301<sup>a</sup>33–5]. Just as there are democratic and oligarchic constitutions, there are democratic and oligarchic revolutions, which aim to change from oligarchy to democracy and the reverse [5.1.1301<sup>b</sup>6–9]. The desires of the rebels for their preferred sort of justice (equality or inequality) ground what kind of change they are seeking [5.1.1301<sup>a</sup>37–9], and thus ground whether the type of revolution in progress is democratic or oligarchic. The desires are, of course, connected to the goals that the revolution aims to achieve (profit, honour, or their contraries), which Aristotle discusses in the immediately subsequent section, since the goals are the objects of the desires. The oligarch, for example, desires inequality of profit or honour. But citing the goal alone will not furnish a formal-causal explanation of what kind of revolution is afoot, since the goal has not yet come about and it is not a proper part of the action. Rather, we must advert to the rebels' active desire for that goal, which as a proper part of the revolution makes it the kind of revolution that it is and distinguishes it from other kinds and is thus appropriately described as a formal cause.<sup>17</sup>

Similarly, in *Rhetoric* 1.13 Aristotle says that we must assess one's decision in order to determine what action he in fact performed, for the decision formal-causally determines the nature of the action. This comes in the course of a discussion of specific types of wrongdoers' psychological conditions (*ὡς ἔχοντες* [1.12.1372<sup>a</sup>4–5]). Aristotle here generalises [*Rhet.* 1.13.1374<sup>a</sup>11–16]:

Wickedness and being unjust consist in the decision (*ἐν γὰρ τῇ προαιρέσει ἢ μοχθηρία καὶ τὸ ἀδίκειν*), and such names as 'outrage' and 'theft' signify a decision in addition (*προσσημαίνει τὴν προαίρεσιν*). For if one strikes someone he does not always commit outrage, but only if he does so for the sake of something like dishonouring him or pleasing himself. Neither is it always the case that when one takes something in secret one commits theft, but rather if he takes it for the sake of harming the owner and appropriating it.

<sup>17</sup> One might think that desire here, and in the other passages that I discuss, is meant as an efficient cause. Again, I recognise desire and decision as efficient causes in a highly qualified non-strict sense. Keyt [1999: 77–8], in his commentary on the *Politics* passage, argues that desire is both an efficient and a formal cause of revolution.



In this passage and its context, the investigation into the wrongdoer's decision is not for determining who or what was responsible for what occurred; that is already known. Furthermore, what is at issue is not merely one's ascertaining whether or not an action was performed in accordance with some decision or other (rather than, say, involuntarily), for several of the pairs of actions in these and the preceding lines are such that both elements of the pair are decided upon. For example, taking something in secret and stealing it are both in accordance with some decision, just not with the same kind of decision. The purpose of appealing to the specific decision involved is to determine precisely what action was performed, where fine-grained differences in description depend on what the agent's decision was.

We see psychological attitudes put to similar use in *EE/NE* 6/7.3–10<sup>18</sup> in order to distinguish between acting temperately, enkratically, akratically, and self-indulgently. Indeed, Aristotle indicates that this is one of his major agenda items for the moral-psychological investigation he prosecutes in those chapters [*EE/NE* 6/7.3.1146<sup>b</sup>14–18]. He proposes elucidating these action-types by determining whether they are distinguished by their objects or by agents' attitudes towards those objects, their psychological condition (ὡς ἔχοντες [1146<sup>b</sup>15–16]).<sup>19</sup> His view is that they all share the same objects (bodily pleasures and pains), but differ in the combination of attitudes involved [*EE/NE* 6/7.2.1146<sup>b</sup>19–24; 4.1148<sup>a</sup>4–10].<sup>20</sup> For example, unqualifiedly akratic action is distinct from the other sorts of action, because it alone involves deciding not to pursue a base bodily pleasure but then pursuing it anyway in accordance with appetitive desire [6/7.3.1146<sup>b</sup>14–24]. Unqualifiedly akratic action is defined with reference to decision and appetitive desire. It might at first seem implausible that the akratic's decision could be part of the formal-causal explanation of her action, since he acts *against* the goal that it recommends. But in fact any occurrent attitude that is non-accidentally motivationally salient for how the action unfolds ought to be part of the formal-causal explanation, and the akratic's decision is: It is that in virtue of which he is pained and rebukes himself while acting [*EE* 2.8.1224<sup>b</sup>15–21, 7.6.1240<sup>b</sup>21–4]. Pain and self-rebuke are motivationally salient, at the very least by making a non-accidental difference for the phenomenology of the action. Furthermore, such pain can sometimes be manifested in overt behavioural differences. For example, an akratic might eat less cake than he otherwise might have done, or, in a self-deceptive way, perhaps an unusually small bite first, then a larger one, then half-heartedly suggest to himself that he might as well go the whole way, trying not to leave crumbs as evidence to himself. Such motivational salience may seem strange, but so is psychic conflict. The important point is that, just as the attitudes of the rebels in *Politics* make a particular revolution democratic or oligarchic, particular combinations of appetitive desire and decision with regard to bodily

<sup>18</sup> *EE/NE* 6/7.2.1146<sup>a</sup>9–13; 3.1146<sup>b</sup>19–24; 4.1148<sup>a</sup>4–10; 4.1148<sup>a</sup>13–17; 9.1151<sup>b</sup>32–1152<sup>a</sup>6.

<sup>19</sup> In these chapters, Aristotle moves freely between distinguishing between agents who act temperately, enkratically, akratically, and self-indulgently, and distinguishing between the corresponding action types. His analysis is the same for both, because he thinks that characters inherit their individuation conditions from the corresponding action types [*NE* 3.5.1114<sup>a</sup>4–10].

<sup>20</sup> A referee suggests that, since temperate, enkratic, akratic, and self-indulgent action are explicitly defined with reference to desire and decision, they are a special case among the action-types that Aristotle discusses, and so one could perhaps accept that desires and decisions are formal causes of them without accepting that this holds for actions more generally. Another referee suggests that, since at least all actions concerned with bodily pleasures fall under these four categories, they are widely generalisable, rather than special, cases. This issue is difficult, but the other passages that I discuss indicate Aristotle's interest in generalising, regardless of whether or not this passage does so.

pleasures make an action temperate, enkratic, akratic, or self-indulgent. These attitudes thus appear to be playing a formal-causal role as differentiae.

Aristotle also describes decision as having a formal-causal role in differentiating actions in *NE* 2.4.1105<sup>a</sup>17–33, as part of his response to a well-known puzzle:

One might be puzzled about what we mean in saying that people must become just by performing just actions, and temperate by performing temperate actions. For if they perform just and temperate actions, they are already just and temperate, as those who perform literate and musical actions are literate and musical, respectively. Or is it not so in the case of arts? For it is possible to do something literate either by chance or under someone else's direction. One will be literate only if he both does something literate and does it in a literate way, that is to say, in accordance with the art of letters that he has in himself. Furthermore, the cases of the arts and of the virtues are dissimilar in that the products of the arts have in themselves the standard of being done well, so that it is enough that these products have a certain quality (*πῶς ἔχοντα*). But for acts in accordance with virtue, the fact that the acts themselves have a certain quality (*πῶς ἔχῃ*) is not enough for their having been done justly or temperately. Rather, they are done justly or temperately only if the agent also is in a certain psychological condition (*πῶς ἔχων*) when he acts: first, if he acts with awareness (*εἰδώς*), second, if he acts in accordance with decision, and decides to do these things for themselves, and third, if he acts having a firm and stable character.

In this passage, Aristotle argues that we need to appeal to the psychological condition (*πῶς ἔχων*) of agents to distinguish between fully just or temperate actions, and actions that merely accidentally resemble those or are directed by someone else. This appeal is supposed to be partially analogous to the way in which we distinguish agents acting in accordance with an art of letters or music that they possess from agents acting in a way that, by mere accident or external direction, produces a correctly written sentence or a composition. Just or temperate action is dissimilar to writing or music in so far as the latter have an external product that is the subject of normative evaluation, whereas the former does not. However, just or temperate action is similar to writing or music in respect of being distinguished from accidental acts that might resemble them by reference to the psychological condition of the agent.<sup>21</sup> In the case of just or temperate action, the relevant psychological condition of agents is principally the sort of decision in accordance with which they act.<sup>22</sup> Thus, decision again plays the role of a formal cause that makes the difference for what sort of action is performed. Since it serves as the paradigm for what the agent is doing, the agent's behaviour is not accidental and does not need external direction.

This passage is controversial, and there is a question about whether or not the trainee performs the same action as the teacher.<sup>23</sup> Since every action and decision accords with some goal [*NE* 1.1.1094<sup>a</sup>1–2], we should distinguish between action-types and coarse-grained action-type abstractions, and between decisions and coarse-grained decision

<sup>21</sup> For writing, say, the trainee's desire to write something makes it his action rather than the teacher's, but his possession of the art of letters would make it literate. The teacher directs *what* (not *that*) the illiterate student writes.

<sup>22</sup> I agree with the anonymous commentary [*In Ethica Nicomachea* 129.15–16] that the agent's psychological condition (*πῶς ἔχων*) is understood most accurately as his decision, rather than as his awareness or stable disposition to act in accordance with such a decision. This is plausible if awareness is entailed by decision, and firmness and stability are modal features of the decision. This view is supported by the fact that Aristotle sometimes abbreviates the list to decision for the sake of a goal, leaving out awareness, firmness, and stability [*NE* 3.8.1117<sup>a</sup>4–5; 6.12.1144<sup>a</sup>18–20].

<sup>23</sup> Ackrill [1978] alleges that Aristotle has trouble with this question, and that this is because he lacks a theory of action-individuation. Charles [1984: 65–6] argues that Ackrill misses Aristotle's theory.

abstractions, where the first element of each pair includes the goal and the second strips it. Suppose that a trainee decides to applaud-the-performer-to-avoid-punishment, and does so, whereas the teacher decides to applaud-the-performer-to-confer-proper-honour and does so. We can attribute to both a common coarse-grained decision abstraction and corresponding coarse-grained action-type abstraction by stripping the differing goals from the description: applaud-the-performer. But the trainee and teacher differ with respect to decision and action-type because their goals differ.<sup>24</sup> If the trainee, further along in his development, decides to applaud-the-performer-to-confer-proper-honour, and does so, but not firmly and stably, then he performs the same action-type as the teacher but with a difference in modal profile of performance. These are the right intuitive results, and the view that decisions are formal causes of action gives them.

These passages from *Politics* 5, *EE/NE* 6/7, *Rhetoric* 1, and *NE* 2 show Aristotle referencing active desires and decisions as formal causes of action. In each case, the active psychological attitude that is the formal cause is itself a movement that is an immanent proper part of the broader movement (the action) of which it is the formal cause. Active desires count as formal causes of action in that they partially constitute what it is to be an action of a particular sort and are paradigms for performing that action in accordance with a goal. They make us the *per se* efficient causes of particular actions, rendering determinate when we are acting in a certain way rather than in some other way.

One might object that calling an active psychological attitude a formal cause of action is a category mistake: surely if  $x$  is a formal cause of  $y$ , one might say,  $y$  must be a kind of  $x$ . Since action is not a kind of desire, how could desires be formal causes of action?

This objection is met by noting that Aristotle recognises at least two kinds of formal causes, one for which this stricture holds and one for which it does not. The former is the genus or species to which a thing belongs, and the latter the paradigm [*Phys.* 2.3.194<sup>b</sup>26–9]. These two kinds are related, in that both can appear in the account of a thing's essence. To give a full account of what a thing is, we need to know the genus and species to which it belongs, but often we also need to know with reference to what its development and activities are directed. This is a paradigm immanent within a thing. For example, health stands as form to bodily humours because it is realized in them through the doctor's activity directed towards that condition [*Phys.* 2.2.194<sup>a</sup>21–7]. Another example: if the eye had a soul, its soul and account would be the activity of seeing [*DA* 2.1.412<sup>b</sup>18–22]. But the eye is clearly not a kind of seeing. Rather, seeing is that with reference to which the eye exists and functions as it does. Likewise, an organism's soul is a formal cause that characterizes its development and mode of life, but an organism, which is a soul-body composite, is not a kind of soul [*DA* 2.2.414<sup>a</sup>4–28]. Finally, as we have seen already, the art of building is a paradigm for the house in accordance with which the builder directs her activities.

I have argued that in a similar way the formal cause of action is an immanent paradigm for bringing about the action. This is the agent's active desire or decision. Recognising that formal causes are sometimes immanent paradigms (and not always the kind of thing that something is) permits us to include perhaps the greatest strength of the standard causalist account, which is that it gives psychological attitudes, which are immanent in agents, an irreducible role in explaining action. My view agrees with the standard causalist view, against the objector, that the goal-oriented structure of actions

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<sup>24</sup> Charles [1984] defends at length the view that a difference in goal is sufficient for a difference in action-type.

is not basic, but rather is grounded in an agent's psychology.<sup>25</sup> Instead of construing psychological attitudes as what brings action about, though, my view says that they are what structures the action and makes it the sort of action that it is. This is made possible by recognising how psychological attitudes count as formal causes of action.

### 3.4 Final Cause

Active desire and decision, the formal causes of action, are that in virtue of which one is acting in one way rather than another. For Aristotle, any action must be in accordance with some goal [NE 1.1.1094<sup>a</sup>1–2]. Active desire and decision are our modes of sensitivity to the goals of action, and as such are required for non-accidentally acting in accordance with them.

The goals of action to which active desire and decision are sensitive are what Aristotle calls 'objects of desire'.<sup>26</sup> The faculty of desire, as well as its objects, are 'movers' [DA 3.10.433<sup>a</sup>9–<sup>b</sup>1, MA 6.700<sup>b</sup>15–701<sup>a</sup>6]. This does not mean that desire or its objects bring about action; objects of desire count as movers because they are final causes of one's actions, that for the sake of which they are done [EE 2.10.1226<sup>b</sup>25–9, EE/NE 5/6.5.1140<sup>b</sup>16–17]. While '[t]he cause in the sense of that whence the starting-point of movement comes is productive (*ποιητικόν*)', 'that for the sake of which is not productive (*οὐ ποιητικόν*)' [GC 1.7.324<sup>b</sup>13–14]. This means that the goal is a mover, not in the sense of producing the agent's movement, but rather by being that for the sake of which the agent herself acts [NE 3.1.1110<sup>b</sup>9–15]. Furthermore, every desire is for the sake of something [DA 3.10.433<sup>a</sup>15]. If every action must have a sort of desire (including, but not limited to, decision) as a formal cause, this means that every action will also have a final cause, an object of desire at which it aims.<sup>27</sup> Put differently, being the *per se* efficient cause of an action requires performing that action for the sake of a goal that is the object of the desire or decision that informs the action.

## 4. The Four-Causal View and Other Interpretations

The four-causal view is helpfully contrasted with two other detailed interpretations of Aristotle that depart from the standard causal theory and advert in a way to matter and form. Natali [2002], unlike standard causalists, does not explain action with reference to agents' psychological attitudes. In particular, being an action depends not on psychological features, but rather on the structural relationship between actions and the movements that compose them: Actions are actualities (*energeiai*) composed of movements (*kinēseis*) but are not identical with the sum of those movements. Rather, the action stands as form to the individual movements that compose it (standing to it as matter).<sup>28</sup> Natali does not argue that there are material and formal causes of action.

<sup>25</sup> This is no trivial feature, for not every view makes ineliminable explanatory appeal to psychological attitudes. See, e.g., Anscombe [1963] and Thompson [2008], which take the goal-orientedness and rational structure of action as basic, rather than giving an account in terms of the agent's psychology of how actions have such a structure. Evnine [2016: 221] and Setiya [2007: 28] argue that this is a mistake and that we need a psychological account.

<sup>26</sup> Natali [1999] says the final cause of action is 'successful action', but this is appropriate at most only as an abstract formal characterisation rather than as a substantive reference to particular desired objects to be achieved in acting.

<sup>27</sup> This is a controversial claim, denied by, e.g., Setiya [2007: 59–67].

<sup>28</sup> This account is strikingly similar to Thompson's [2008] (sharing the implication discussed in note 25), and to a lesser extent to Watzl's [2017] account of the 'internal form' of a process as the causal relations between the events that constitute it.

Unlike Natali [2002], Charles [1984] retains the standard causalist motivation to explain action with reference to psychological attitudes, which the present four-causal account shares. Charles breaks from standard causalists, primarily in extending the efficient-causal *relata* beyond events to include processes and states, some of which (psychological attitudes) have intensional content. This allows for a combination of intensional and extensional individuation of actions, which Charles argues is unavailable to standard causalists. For him, desire is the antecedent efficient cause of, and thus not a proper part of, intentional action. The physiological process on which desire supervenes is the antecedent efficient cause of, and thus not a proper part of, the set of bodily movements constituting the action. Desire relates to the physiological process in a way partially analogous to form's relation to matter [ibid.: 253–4], which relation is, for Charles, typically that of members of an equivalence class, the first of which depends on the second. Thus, for Charles, these processes are not the formal and material causes of *action* since they are not even proper parts of it.

Charles's [1984] and Natali's [2002] accounts differ from mine, primarily in not including formal and material causes of *action*. What they refer to as 'matter' is not intended to be, and cannot be, an immanent proper part of action that counts as its material cause. This is because what they call 'matter' is a movement or set of movements that constitutes the action, whereas I have shown (section 3.1) that no such thing could be the material cause of action. These two views also do not include an immanent formal cause of action. What Natali calls 'form' is identical with the action, and Charles discusses form and matter only to explain by partial analogy the sense in which desires and their physiological correlates (which, for him, are both antecedent to actions rather than proper parts of them) are members of an equivalence class. These last two differences indicate once again that the four-causal view takes more seriously than do alternatives Aristotle's standard way of describing the material and formal causes of natural changes—namely, as immanent proper parts of such changes.

## 5. Conclusion


The Aristotelian four-causal view answers the questions about action with which I began, by citing material, efficient, formal, and final causes for actions, which Aristotle thinks are tightly related to each other. An action is a self-movement with the body as its substratum, performed by a self-moving agent who counts as the *per se* efficient cause of the self-movement because her active desire for a goal is what informs her activity, giving it the goal-oriented structure that it has. Since this account is an application of Aristotle's general policy of giving four-causal treatments of natural changes, it is more distinctively Aristotelian than is the standard causalist account often imputed to him. That imputation should be

abandoned so that the true merits<sup>29</sup> (and demerits) of Aristotle's approach to action can be recognized.<sup>30</sup>

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<sup>29</sup> One merit worth expounding elsewhere is that it offers a principled diagnosis of what has gone wrong in 'deviant causal chain cases', which Mayr [2011] argues that no version of standard causalism can do, although Aristotle never discusses them. Such cases involve a movement being efficiently caused by an intention without being an intentional action. The Aristotelian diagnosis, very briefly, is that such movements are not actions, because the intention is not a paradigm that structures the movements and gives them their identity, and so the agent is not the *per se* cause of anything with a goal-oriented structure. Deviance is problematic for standard causalists because a set of movements can be accidentally *in accordance with* an intention. But it cannot be accidentally *informed* by an intention. So, because of how tightly Aristotle's efficient, formal, and final causes hang together, any set of movements that is so informed will also be *per se* efficiently caused by an agent qualified with respect to the form, and will have a goal-oriented structure in virtue of being so informed.

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