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## **CAUSAL PROJECTIVISM, AGENCY, AND OBJECTIVITY**

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### **Abstract**

This paper examines how specific realist and projectivist versions of manipulability theories of causation deal with the problem of objectivity. Does an agent-dependent concept of manipulability (i.e., the agency theory version of causal projectivism) imply that conflicting causal claims made by agents with different capacities can come out as true? In defence of the projectivist stance taken by the agency view, I argue that if the agent's perspective is shown to be uniform across different agents, then the truth values of causal claims do not vary arbitrarily and, thus, reach a satisfactory level of objectivity. My argument connects Price's considerations on the situation of deliberation, whose structure, common to all agents, is the same with respect to both decision making and causal claims on a concept inspired by Douglas' classification of objectivity of thought processes: the perspective of the detached agent. I further argue that, despite his agent-independent concept of intervention, Woodward's claim of a stronger objectivity standard (i.e. agent-independence) cannot be achieved, as the relativity of causal concepts to a variable set brings about the issue of the agent's choice of variables. Consequently, a more permissive objectivity standard (admitting of the agent's perspective) applies to both views.

### **1. Introduction**

Causal claims are often connected to claims about manipulability. While most accounts of causation acknowledge this connection, there are also attempts to analyse causation specifically through the manipulability feature. This paper examines how accounts of causation in terms of manipulability in line with projectivist (Menzies and Price, Price) and realist (Woodward) views on the relation between causal claims and the world account for the objectivity of causal claims. I focus on one implication of realism commonly taken for granted: the objectivity of causation. Can a projectivist view on causation, in the form of the agency view (where casual concepts are the result of projecting the agent's situation onto the world) meet an objectivity standard in which the truth value of causal claims do not vary with the agents capacities and beliefs? I argue that if the agent's perspective is defined through a structure common in all agents, then the agency concept of causality can reach an acceptable degree of objectivity. The concept of objectivity I employ taking into consideration the relation between causal claims and objects in the world along with the thought processes leading up to causal claims. Furthermore, due to the issue of variable set

relativity, the realist alternative cannot fulfil higher objectivity requirements (i.e. full agent-independence). Thus, both realist and projectivist versions of manipulability approaches could benefit from a concept of objectivity compatible with a definition of causation reliant on the agent's perspective.

## **2. The realism-projectivism debate, manipulability, and objectivity**

Firstly, the distinction between realism and projectivism needs clarification. As my discussion focuses on the ontological aspect, applying these concepts to the theories I discuss may appear problematic. Since there are definite metaphysical implications of both views under investigation, I take the distinction to go as follows:<sup>1</sup>

- Realism defines causation through entities or processes that ground causal relations and that can be defined independently from the human subject. This view assumes that causation can be analysed in terms of more fundamental concepts as opposed to taking it as primitive.
- Projectivism defines causation through features of the human subject, projected onto the world. While projectivism may rely on a more or less objective component to causal relations, the concept of causation always involves a subjective component, which is in some way written into it.

This distinction is not exhaustive. Another notable option is anti-realism, where there need not be causal relations or specific features of causal relations in the world.<sup>2</sup> On such view, causal claims can still be used as tools when dealing with various contexts, such as scientific explanation, or everyday causal reasoning. Since I am concerned with how should causation is to be defined and its relation to objectivity, and not why or how causal claims come to be useful, leaving this option aside would not affect the forthcoming discussion in any significant way.

With regards to the relation between the realism – projectivism distinction and different versions of manipulability, there are two main questions:

- How can causation be defined through agency/intervention?
- Does causation defined as agency/intervention rest on objective features of the world, or is it, at least partly, dependent on a human capacity?<sup>3</sup>

Both Menzies and Price (1993) and Woodward (2003) provide accounts of how causation can be defined via manipulability in answering the former question. Their different stances on

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1 The debate between Woodward and Strevens concerning metaphysical aims shows is illustrative in this sense (see Strevens 2007, Woodward 2008, Strevens 2008). The Menzies-Price account is not entirely clear on this either, although the authors do not detach from metaphysics in Woodward's manner (Strevens 2008, for instance interprets it as a metaphysical theory). Price (2016) shifts towards a 'philosophical anthropology' project, which I do not discuss.

2 This can also be interpreted as a denial of the metaphysical assumptions underlying realism and, to a lesser extent, projectivism.

3 On the latter view there are features to causal relations grounded into the world along with the features projected by the agent.

manipulability lead to divergent answers to the latter question. In the Menzies-Price account, causation is described as a secondary quality, whose instantiation is a matter of a relation between human agents and the world. In Woodward's account, the definition of intervention includes the possibility of hypothetical interventions expressed through counterfactuals, thus allowing for an agent-independent picture of causal relations.

Connecting these versions of manipulability to realism and projectivism, human-independent intervention is compatible with realism. As to the agency view, agency, as characteristic of the human subject, is constitutive of causation. While the agency account is committed to projectivism - the concept of causation is the result of the projection of the agent's perspective upon the world - it should be emphasized that this is not the only available form of projectivism about causation. There could be other features characteristic of humans whose projection onto the world would result in causal concepts.<sup>4</sup>

A final topic relevant for what follows is objectivity with regard to causation. A commonplace, but arguably oversimplified view on objectivity and the causal realism – projectivism debate would assimilate objectivity with agent-independence, and subjectivity with agent-dependence. This appears to be the stance Woodward takes while criticizing the agency account. Against this view, I propose a different understanding of objectivity, focusing on the ontological assumptions under which the truth conditions for causal claims would be uniform across agents. While for realism truth conditions include features of the world rendering causal claims true, projectivism, as mid-point between realism and anti-realism, additionally incorporates human-specific processes encompassing the relevant worldly features and their connections. Objectivity thus understood would deny the undesirable possibility that agent dependent causation entails that conflicting causal claims made by different agents on the basis of distinct capacities should be taken as true. In connection to recent developments (Reiss & Sprenger 2014), the concept of objectivity I endorse involves:

- product objectivity: causal claims whose truth values are uniform across agents;
- process objectivity: agency, as a human feature, though constitutive of the concept of causation under the projectivist reading, can lead up to agreement among agents on what causes what.

In relation to Douglas' (2004) classification, the most important senses of objectivity for my discussion are manipulable objectivity<sub>1</sub> – as 'a tool to intervene reliably in the world' (Douglas 2004: 457) and detached objectivity<sub>2</sub> – as 'metaphorical "distance" or detachment between the

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<sup>4</sup> For instance, Beebe's interpretation of Hume's view, where people's habit of making causal inferences is projected onto the world, and what we take causation to be (Beebe 2007). In this paper I only discuss the agency version of projectivism (it is the agent's perspective that is projected onto the world and is constitutive of causal concepts).

knower and their subject' (Douglas 2004: 459). With the latter particularly relevant for projectivism, I argue that the agency concept of causation can meet these standards. While there may be other reasons for defining causation in a realist manner, in the causation literature objectivity is one of the biggest challenges for projectivism.<sup>5</sup> It should be noted, however, that Douglas' treatment of objectivity remains agnostic with respect to scientific realism, and thus, objectivity need not be tied to a realist stance. My argument in favour of the agent-dependent concept of causation is consistent with this stance: objectivity is not necessarily a feature of realism.

### 3. Agency and interventionism

This section expands on the two concepts of manipulability sketched above, explaining how the two projects relate to projectivism and realism, and illustrating the problem of objectivity through two objections by Woodward against the agency account.

In both Price (1991) and Menzies and Price (1993), the agent's perspective has a constitutive role in for causation. This approach emphasizes the role of agency, in terms of achieving one thing by means of another, in articulating the concept of causation: 'the notion of causation (...) arises (...) from our experience of success: success in the ordinary business of achieving our ends by acting in one way rather than another.' (Menzies and Price 1993: 194). Price's definition of causation between events connects causation to an agent's reasoning in terms of means and ends:

An event *A* is a cause of a distinct event *B* if and only if ensuring that *A* rather than not-*A* would be an effective means-end strategy for a free agent whose overriding desire is that it should be the case that *B* (and whose concern is thus to act so as to maximise the probability that *B*). (Price 1991: 170).

The concepts of causation and action are brought together through the perspective of an agent's free choice. This fits with the projectivist picture – agency is in an important way constitutive of causation. This claim can be given a strictly conceptual reading (it is through agency that we come to possess a concept of causation) or a more expansive, ontological, one (along with physical entities in the world, causal relations involve the agent's situation). This latter reading is subject to objections from the realist side, as explained below. To dispel potential worries, Menzies and Price argue for a principle of analogical reasoning (see Menzies and Price 1993: 197 for its statement) that ensures that causation is not entirely dependent on human capacities. The resulting projectivist perspective has, thus, a subjective component – the ability to act freely, and an objective component – some 'basic intrinsic features of the situation involved' (Menzies and Price 1993: 197).

This final point establishes an important relation for meeting the previously mentioned objectivity standards: even if the concept of causation is constituted by a human feature, there is

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<sup>5</sup> Realism could provide the metaphysical grounds for objectivity via the correspondence with the features of causal relations in the world.

reference to entities out in the world that people interact with in order to make causal claims. The further point I make in section 4 is that the so-called subjective component (the human perspective) can be bootstrapped to a detached (albeit still agent-dependent) view.

In contrast with the agency view, interventionism includes several concepts of causation, all relating to manipulation. For my purposes, I use Woodward's concepts of direct and contributing cause:

**(M)** A necessary and sufficient condition for  $X$  to be a (type-level) direct cause of  $Y$  with respect to a variable set  $V$  is that there be a possible intervention on  $X$  that will change  $Y$  or the probability distribution of  $Y$  when one holds fixed at some value all other variables  $Z_f$  in  $V$ . A necessary and sufficient condition for  $X$  to be a (type-level) contributing cause of  $Y$  with respect to variable set  $V$  is that (i) there be a directed path from  $X$  to  $Y$  such that each link in this path is a direct causal relationship; that is, a set of variables  $Z_1 \dots Z_n$  such that  $X$  is a direct cause of  $Z_1$  which is in turn a direct cause of  $Z_2$ , which is a direct cause of  $\dots Z_n$ , which is a direct cause of  $Y$ , and that (ii) there be some intervention on  $X$  that will change  $Y$  when all other variables in  $V$  that are not on this path are fixed at some value. If there is only one path  $P$  from  $X$  to  $Y$  or if the only alternative path from  $X$  to  $Y$  besides  $P$  contains no intermediate variables (i.e., is direct), then  $X$  is a contributing cause of  $Y$  as long as there is some intervention on  $X$  that will change the value of  $Y$ , for some values of the other variables in  $V$ . (Woodward 2003: 59).

While causation involves intervening on the cause variable to bring about, or to change, the effect variable, in contrast to the agency account, Woodward's concept of intervention goes beyond the agent's perspective. Unmanipulable causes are spelled out in terms of possible interventions: in the example above, if there is no way for a human agent to manipulate  $X$ , then the truth of the causal claim is given by the counterfactual 'if there had been an intervention on  $X$ , then there would have been a change in  $Y$ '. As to the definition of intervention, a recent formulation of the conditions a variable has to meet in order to qualify as an intervention in Woodward's sense goes as following: 'an *intervention* on  $X$  with respect to  $Y$  causes a change in the value of  $X$  which is such that the value of  $Y$  changes if at all via a route (or routes) that goes through  $X$  and not some other way.' (Woodward 2015: 3583). He provided a more detailed version of the conditions in an earlier work (Woodward 2003: 98).

As an example, taking the causal chain in Figure 1,  $I$  counts as an intervention on  $X$  if it changes  $X$ 's value while, at the same time, cutting the causal connection between  $A$  and  $X$ . Next,  $I$  should not directly cause  $Y$ , or be part of a causal chain that leads to  $Y$  without going through  $X$ . Finally,  $I$  should not affect the values to the other variables in the system (in the present case,  $A$ ). Here, causation is defined through intervention, which is in turn independent from human beliefs and capacities, and thus in line with realism. While there are several disagreements between these two concepts, given my interest in objectivity, I pursue the conflict between the interventionist and agency concepts of causation from this perspective.

[FIGURE 1 NEAR HERE]

Regarding the Menzies – Price theory, the problem of objectivity is closely connected to the charge of making causality unavoidably anthropocentric the central issue being the status of unmanipulable causes. Does dependence on the agent's perspective imply that there is no causation where the agent cannot intervene? Menzies and Price allow for cases involving unmanipulable causes to be modelled on cases that agents can bring about, sharing the same intrinsic features (i.e., the principle of analogical reasoning). For example, claiming that the Earth's rotation movement causes the day-night cycle can be accounted for through a simulation where someone could intervene on a computer model of the solar system and observe the subsequent modifications.

Further criticism by Woodward goes along the same lines. Before discussing this objection, however, it should be elucidated what he means by 'objectivity'. In the absence of an explicit account, there are two relevant considerations: Woodward's treatment of the variable set relativity of certain interventionist causal concepts (on which I expand in section 5), and his critique of the agency theory. These seem to comprise two views on objectivity:

- (1) objectivity as independence from psychological (or otherwise subjective) factors;
- (2) objectivity as complete agent-independence.

The former is supported by Woodward's considerations on variable sets: 'the choice of variables in a representation reflects those possibilities that we are willing to "take seriously"' (Woodward 2003: 56), while decisions concerning serious possibilities 'are based on facts about how the world operates that seem perfectly objective.' (Woodward 2003: 89). He later makes a similar point: 'once these broad goals are sufficiently specified, I take it to be an "objective" matter, not dependent on further facts about anyone's interests' (Woodward 2016: 1054), and the choice of variables relies on physical properties of the systems in question (Woodward 2016: 1062). Interpreting the latter concept requires going through Woodward's criticism of the agency theory.

Woodward states that there is an objectivist (i.e. agent-independent) interpretation to the idea that models involving manipulable variables share their intrinsic properties with real world instances of unmanipulable causes. This passage is illuminating for both his stance on objectivity and his critique of the agency theory:

Quite independently of our experience or perspective as agents, there is a certain kind of relationship with intrinsic features that we exploit or make use of when we bring about B by bringing about A. Moreover, because this relationship is intrinsic and can exist independently of anyone's experience of agency, it can also be present even when A is not in fact manipulable by humans. If so, I would claim that this is essentially the objectivist position regarding the connection between causality and agency that I have endorsed:

considerations having to do with agency and manipulability help to explain why we developed a notion of causality having the features it does and play a heuristic role in helping to characterize the meaning of causal claims, and have considerable epistemic relevance when we come to test causal claims, but agency is not in any way "constitutive" of causality. This view yields a far more plausible treatment of causes that are not manipulable by human agents and avoids the problems that result from taking agency to be a primitive feature of the world, but it also abandons any pretense of noncircular reduction of causality to agency (Woodward 2003: 125-126).

One claim here is that there are objective grounds for the connection between causation and manipulability: features of causal relations in the world. Woodward asserts that, in order to avoid an anthropocentric concept of causation, the agency theorist should acknowledge the methodological contribution of the agent's perspective, while denying its constitutive role for the concept of causation. Why should the agent's view not be constitutive of causation, and, more importantly perhaps, how are Woodward's two takes on objectivity related? In my interpretation, the denial of agency's constitutive status is due to the assumption that the agent's perspective is necessarily tied to the subject's psychological state or individual interests and aims.

Turning to an objection dealing with objectivity directly, one formulation holds that if human beings had different capacities to manipulate the world, then causal relations would differ, according to the agents' capacities. Menzies and Price use analogical reasoning again, which allows for modifications in the degree of human power as agents to affect the capacity of understanding causal relations, but not their nature. While considering causation a secondary quality, Menzies and Price do not take it to be as dependent on alterations of human capacities as qualities such as taste or colour, and, thus, more objective.

Woodward's objection on the same lines is more important for my purposes, since it connects to causal realism. The worry is connected to the objectivity of causal relations, and to the outcomes of controlled experiments within a manipulability framework: 'it seems very hard to make sense of the activity of conducting experiments to assess the correctness of causal claims if the truth of those claims is somehow partly dependent on or constituted by the experimenter's beliefs or expectations.' (Woodward 2003: 119). Woodward also refers to his solution to the issue of unmanipulable causes, through possible interventions, enabling a conception of manipulability where causal relations are said to be independent from the human mind. In my interpretation, this objection brings together the two views on objectivity singled out above: if causation is dependent on the agent's perspective at an ontological level, and the agent's perspective may contain psychological elements, the truth value of causal claims may vary with agents' different psychological states, or goals. Since my argument will mainly go against this criticism by Woodward, further clarifications are necessary.

While I interpret this argument as targeting objectivity with regard to the truth values of causal claims under projectivism (and, thus, against the agency concept of causation), the passage can also be read as a claim about methodology.<sup>6</sup> The latter reading fits Woodward's more recent project (Woodward 2015) and would raise the concern that experiments may yield into results compromised by what has already been projected by the experimenter. On this view, interventionism provides a more adequate account for experiments meant to single out causal structures than agency, through supplying a way of ruling out confounders. While my discussion here aims at shifting the focus from methodological aspects to ontological ones, I shall briefly justify my stand. Woodward's concept of intervention is better fitted for experimental contexts because its design is methodologically oriented. By contrast, the aims in Menzies and Price are to provide an account of causation which can be interpreted as conceptual analysis, or extended to an ontological project. While on the agency account no method for ruling out confounders is specified, the possibility of such method is not denied either. Explaining the concept of causation though agency emphasizes the role of action as opposed to observation regarding causal claims, but it leaves the space open concerning the best experimental methods that reveal causal connections. Thus, if one were to stick to the methodological interpretation, Woodward's objection seems to go against the different focus of the project rather than against the central claims of the agency theory. In my view there is more at stake here, namely ontological issues concerning the objectivity of causation and the problem of agent dependence, which are encompassed by my reading above.

In section 4 I argue that one can take the agent's perspective to be constitutive of causation without being committed to a variation of truth values for causal claims with different agents. This is possible through a view bringing together features of reality as well as elements common to all agents/reasoners.

#### **4. Objectivity and human-dependence**

I propose a two-step argument to defend the objectivity of causal claims under projectivism. The first step aims at establishing compatibility between the concept of objectivity sketched above and agent dependence. This point is to a large extent reliant on Price's considerations on the architecture of deliberation and causation as a perspectival concept. The second step explains how the homogenous perspective, as constitutive of causation, is possible through an analogy between objectivity in decision making and objectivity in scientific reasoning. I connect Douglas' concept of detached objectivity<sub>2</sub> to Price's homogenous perspective, providing a view where causation is dependent on the agent, but only on those capacities that would build up to causal claims that all

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6 Woodward, in conversation.

agents would agree with given similar interactions with the phenomena under investigation - manipulable objectivity<sub>1</sub> (Douglas 2004).

Concerning how my view here differs from Price, while taking perspectivalism and the project of laying out the ‘conditions of possibility’ for causal concepts for granted, I pursue these concepts from an ontologically-oriented perspective. Thus, I do not endorse Price’s (2016) ‘philosophical anthropology’ as a ground for defending the agency theory against objections from the interventionist side. My claim is that the problem of objectivity can be settled through a stronger claim, on ontological grounds. I hold that ontological issues are relevant for the conditions of possibility for causal concepts, and unavoidable for settling the truth conditions for causal claims. This goes against both Price’s philosophical anthropology project, and Woodward’s replacement of ontology with methodology. While this could count as expanding Price’s project towards ontology, the relation to Woodward’s views needs further explanation. Briefly put, even if the methodological aim is to answer a question of the form ‘how we ought to reason about causation?’ (Woodward 2015: 3578), there is still a question regarding how such reasoning is possible.<sup>7</sup> In my view, the relation between the agent and the world and the possibility of objectivity are crucial parts of this set of conditions. Finally, while Price’s presentation of perspectivalism is set as a challenge to realist claims roughly associated with an objectivist stance, my stance is defensive: how to make a case for projectivism against a realist objection. Thus, my approach does not focus on confronting realism with the subjective components to intervention and causal claims, but rather on how projectivism can account for the objectivity of causation with these components in place.

Given the two views on objectivity central to Woodward’s critique of agency explained above – (1) independence from the agent’s psychological state; and (2) complete agent-independence, I propose a concept of objectivity that allows agency to be constitutive of causation without variation of truth values for causal claims with the subjective states of the agents involved. The first step of the argument aims at establishing that objectivity and human-dependence need not be mutually exclusive. If causation is to some extent dependent on a human capacity, the truth values of causal claims made by different agents need not vary arbitrarily if the said human capacity is something all agents share. While this may not meet the realist requirements of complete correspondence with features of the world, it does not imply that with respect to the truth values of causal claims anything goes. Menzies’ and Price’s analogy with the dispositional theory of colour also helps to illustrate this point: while colours are defined as dependent on human perception, claims about colour do not vary with individuals and people usually understand each other when making such claims, since they are making use of the same capacity when making judgements about colour.

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7 In line with the potentially Kantian project, ‘ought’ implies ‘can’.

For this step, I rely on Price's perspectivalism, namely, the idea that the epistemic position of the agent and the process of deliberation are constitutive for certain concepts such as causation (Price 2007), and temporal direction (Price & Weslake 2009). Though Price's discussion, being connected to realism, does not appear to directly address the issue, a broad claim about objectivity can be made through connecting two of the main concepts involved in perspectivalism.<sup>8</sup> Firstly, concerning causation, Price holds that 'for basic physical reasons, all humans share a homogeneous perspective (...)' (Price 2007: 251). Secondly 'the structure, or functional architecture of deliberation' (Price 2007: 274) includes a description of the agent's situation in terms of Fixtures and Options. These two insights can be put together in an argument for the objectivity of the agency version of causal projectivism:

1. Causation is to be defined through the agent's perspective. (perspectivalism/the agency view)
2. The agent's perspective is constituted by human capacities that are uniform across agents. (homogenous perspective)
3. Therefore, causation is to be defined through human capacities that are uniform across agents. (from 1 and 2)

The conclusion would enable the further claim that the truth of causal claims is not dependent on goals, beliefs, or capacities that vary with different agents. Thus, the concept of objectivity I endorse unfolds as partial human-independence in the qualified sense of excluding features that vary among different agents.

While the argument above may establish that objectivity under the agency view is possible, the capacities enounced at (2) need further specification. They can be spelled out in terms of the agents' epistemic situation and their ability of making decisions. According to Price (2007), the agent's perspective is characterized by the deliberation situation which is described in terms of Fixtures (either Known or Knowable) and Options (either Direct or Indirect). Every agent acts such as to bring about certain goals within a framework of fixed factors and options, some of which the agent chooses to enact; even if their knowledge of the relevant factors may differ, making decisions within this framework is characteristic to all agents. In relation to causation, the core idea is that, even if causation is taken to be agent dependent, the agent's perspective can be defined in an objective manner, separating the features that are different across agents from broader features of deliberation situation common to all agents.

The second step of my argument explains how the distinction between subjective and objective features of agency is possible. Even with the homogenous perspective in place, there is a

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<sup>8</sup> It is also worth noting that Price and Weslake use the term 'subjectivist' for their view on time and deliberation. While I do not discuss this, in the case of causation, my aim is to establish that even with perspectivalism in place the view should not count as fully 'subjectivist'.

question about how the subjective components of the deliberation situation are to be separated from the objective ones. How is it possible for agents with different capacities, acting on distinct aims, to make similar causal claims? Commonly, people make decisions based on their different knowledge, or assessment, of a situation. A possible way out would be through a perspective by an ideal agent (see Williamson 2005 for considerations on the ideal causal reasoner): what decision or causal claim would an agent in possession of all relevant information make? However, it is doubtful whether such perspective holds for most manipulability-based causal claims. After all, experimenters often reach causal conclusions while possessing only incomplete information. Instead, I suggest the perspective of the detached agent. While Douglas emphasizes the role of objectivity<sub>2</sub> in refuting reasoning of the form: ‘I want *X* to be true, therefore *X* is true.’ (Douglas 2004: 469), as a more nuanced claim along the same lines, I suggest that the detached agent would move from claims of the form ‘I am able to bring about *Y* through *X*, therefore *X* causes *Y*’ or ‘I am not able to about *Y* through *X*, therefore *X* does not cause *Y*’ to claims of the form ‘*X* is a means of bringing about *Y*, therefore *X* causes *Y*’. The last formulation leaves out different capabilities agents have and use in manipulating relations in the world, and focuses on establishing a means-end relation. The agent’s perspective is still present, however, since the means-end relation is something that only agents could employ. Thus, causal claims can be made independently of states that vary with different agents, yet be dependent on the agent’s perspective (there is no manipulation, or means-end relation, without an agent).

In contrast to Douglas’ example above, I do not hold that the aim is to exclude causal claims based on subjective capacities, but that there is a more abstract, detached version of the agent’s perspective which is at the heart of the projectivist concept of causation, enabling the truth of both types of causal claims. While on an ontological level, claims about the means-end relation enable claims about agents with certain capacities being able to enact certain outcomes, on an epistemic level, the relation seems to run the opposite way – people bootstrap from their subjective experience to a detached perspective of which goals can be achieved through which means. It should be noted, though, that there is continuity when going either from detached to subjective formulations of causal claims - asserting the former to enable the truth of the later, or the other way around - taking the subjective claims as evidence for a causal relation to be expressed in the detached mode. This continuity is enabled by the features constituting the homogenous perspective. When moving towards a detached claim, one abstracts away one’s subjective beliefs or capacities, focusing on a view that all agents would share. When moving from a detached claim to more subjective formulations one adds particular features of the situation of the agent in question. In both cases, there is a thread keeping all these versions of causal judgements together. These are the features all agents share, and the way of separating them from the ones varying across agents involves going

back and forth between subjective and detached formulations of causal claims and establishing what keeps them together.

To make a broader point, there seems to be a common ground between addressing objectivity with regards to decision-making and scientific reasoning. On both cases a certain kind of detachment from the agent's goals, capacities, and values is desirable. Claims concerning science, or decision making require a degree of abstraction to a point that ideally all agents should share. Reaching such perspective, however, does not imply that one should completely do away with the presence of the agent, or assume complete knowledge of the situation involved. It should be stressed that this view does not exclude the ideal agent, the detached perspective could build up to the perspective from which the ideal agent may make decisions, but it does not need to. This view reflects, on the one hand, that objectivity comes in degrees (in the current case, degrees of detachment), and, on the other hand, that most connections between causal relations and manipulation, are not made by an ideal agent, but by an agent taking a certain distance from one's situation and manipulation capacities.

With this second step, the argument in favour of the agency concept of causation can be put together. The homogenous perspective is achievable through a shift towards making causal claims based on the means-end relation, rather than on particular capacities of the agent. One way of abstracting away as many of the agent's subjective features as possible is achieved through repeated interactions between the agent and the worldly components of the causal relations in question (manipulable objectivity<sub>1</sub>). Since neither the means-end relation nor manipulation can be achieved in the absence of the agent, the agent related component cannot be completely excluded.

This addresses the objection that different agents may disagree as to what counts as a Fixture and what counts as an Option, and thus disagree with respect to what causal claims they take to be true. The projectivist concept of causation is not determined by what one takes the actual Fixtures and Options to be, but by a perspective establishing what can be used as means to achieve certain goals, further translated into claims of what causes what. To use an example, for someone contemplating quitting one's job as an accountant in order to fulfil one's dream of becoming a successful writer, but unable to make a living from writing, keeping the current job counts as a Fixture. Nevertheless, grasping a potential causal connection between hours spent working in accounting and the quality of one's writing does not depend on what the agent takes the Fixtures and Options to be at the time. Rather, the causal connection depends on a more general fact about the means of enacting the Option in question. Even with keeping the job variable fixed, one may consider spare time used for practising writing (say, through taking fewer working hours) as a means of affecting one's writing quality.

This specification also helps in answering another objection the charge from concerning the anthropocentric character of causation, namely whether different human capacities entail different causal claims. The limiting case is the ‘intelligent trees’ example (Dummett 1978) – would intelligent trees observing the world around them have a concept of causation? Along with Menzies and Price, my answer is negative.<sup>9</sup> What my argument adds to the discussion is that intelligent trees lack the deliberation framework a creature with agency would have – the detached perspective is impossible to reach for creatures unable to act as to turn Options into Fixtures. As to agents with different capacities, those can be modelled on the discussion above – while agents may not agree on what they take to be Fixtures and Options, it is the overall view of what means are effective in bringing about specific goals that is constitutive of causation, and not the actual choices agents make based on their capacities.

To further clarify my point, I do not deny that there are subjective components involved in the agent's perspective (in scientific context: a theoretical framework one abides to, the purposes of one's inquiry, the epistemic values one endorses), neither their importance for what causal claims one ends up making. A structure of deliberation based on the perspective of the detached agent is sufficient for the agency-based concept of causation to count as objective (in the sense of the truth values for causal claims not to vary arbitrarily). To formulate this through the causal projectivism thesis discussed above, what the human subject projects onto the world when employing causal concepts is a mode of viewing deliberation common to all agents (thus, an objective component). While from an epistemic perspective, we may build our way up from causal claims based on our capacities to general means-ends claims; the detached perspective is constitutive of the agency concept of causation at an ontological level.

To address Woodward's criticism above, a causal claim made as a result of a controlled experiment would not be undermined if the causal relation in question is partially dependent on the experimenter's capacities as long as those capacities are part of a perspective universal among agents. Taking this to be the detached perspective, where causal claims are made as a result of grasping a means-ends relation as opposed to resorting to beliefs, capacities, or values that vary among agents, this is nevertheless an agent's perspective, since only agents can be involved in a deliberation situation. Thus, once the worry about separating between components that vary with different agents and a perspective that all agents would agree with is in place, full agent-independence is no longer required. Furthermore, there may be other agent specific features that make it indispensable for experimental setting (see Buzzoni 2015 for an argument in this sense focusing on the free agent). This further supports the analogy between objectivity in decision making and scientific reasoning: despite the worry about subjectivism, the aim is to single out

<sup>9</sup> This can be summed up by Collingwood's statement, 'for a mere observer, there are no causes' (1998, orig. 1940: 307).

relations holding for all agents, and agent specific capacities enable the process of making causal claims based on decision making or experimentation.

As the discussion shows, there is an important methodological or epistemic component to the problem of objectivity. A manipulability theory of causation would by default also need to answer the question how to ensure the objectivity of various ways of inferring causally. As Price noted, ‘when we imagine intervening, we carve up the relevant aspects of reality’ (Price 2007: 268). This raises a question to be addressed in the next section: whether the aspects we end up carving may pose a problem for the reliability of causal inference, and whether this can be taken further, to defining causation. I further argue that the problem of variable choice is not merely a methodological issue for Woodward, and that much of the discussion so far can be used to construct more precise objectivity standards for Woodward’s own account, while also shifting the investigation back to ontology.

## **5. Objectivity and variable sets**

As long as the agent’s perspective is understood in its detached mode, the agency theory can account for causal claims whose truth values are uniform across different agents. In this section I argue that, despite the agent-independent definition of intervention, Woodward’s theory fails to meet the objectivity standard of complete agent-independence. I further suggest reliance on more permissive objectivity standards, i.e. the qualified partial agent-dependence defended above. While the agent’s perspective is not constitutive of causation on Woodward’s view, variable sets are components of his definition of causation, and defining causation through variable sets renders the truth conditions for causal claims dependent on the agent’s choice. While Price takes intervention to be the Trojan horse that brings the agent back into causation, on my view this role is fulfilled by variable sets. An argument to this conclusion runs as following:

1. The truth conditions for causal claims under interventionism rest on features of the world (realism).
2. The features of the world making causal claims true are determined within variable sets (the interventionist apparatus).
3. Variable sets are established through the agent’s choice.
4. Therefore, the truth conditions for causal claims under interventionism are established through the agent’s choice.

Two things need further clarification concerning the argument above. The first is the relation between methodology, ontology, and truth conditions. As pointed out above, Woodward considers the issue of variable choice as purely methodological. However, given his realist assumptions, the question regarding the conditions of possibility for the objectivity of causal claims cannot be

avoided. Before enouncing norms regarding how we ought to reason causally, the realist needs to answer what features of the world enable this way of reasoning. If interventions only work within variable sets, how would causal claims be dependent solely on features of the world? While an anti-realist, ‘will look to the conditions under which (...) [a sentence] can be verified, or asserted with warrant’ (Glazberg 2016: 6.3), the commitment to causal realism requires considerations beyond verification. Although Woodward’s (2016) recent work deals with the issue of methodological objectivity (e.g. specifying the agent’s goals), the realist stance requires an account of the compatibility between objectivity and agent choice insofar as causal concepts are defined by reference to a variable set. Given the two views on objectivity identified in Woodward’s work – this shows that the requirement that the agent’s perspective not be constitutive of causation may be too strong, given that variable choice seems to play a constitutive role in the truth conditions for causal claims under interventionism.

Secondly, for the argument above premise (2) is indispensable. I use recent developments on the issue of variable sets to argue that under interventionism causation is indeed dependent on variable sets. Strevens (2008) points out that Woodward’s concepts of direct cause and contributing cause are defined by reference to a variable set. In Strevens’s view, this leads to the undesirable consequence that ‘what causes what depends on your perspective (more exactly, on the variable set singled out by your perspective)’ (Strevens 2008: 174). Strevens emphasizes that the interventionist concept of direct causation represents only a part of causal reality. Since other variables could be added to the set and interfere with the direct causation relation, direct causation is relative to a variable set (which part of causal reality one ends up cutting).

In his reply, Woodward (2008) revised his view such as to allow causation to be relative to the variable set but in a monotonic way: variables can be added to the set and direct causes can become contributing causes without affecting the causal connection singled out through the intervention variable. As Strevens puts it, ‘if X is a relative cause of Y with respect to a variable set V, then it is also a relative cause of Y with respect to any superset of V. Adding variables to a set can expose causal relations that were previously hidden, but it cannot hide causal relations previously exposed’ (Strevens 2008: 175). Thus, the choice of variable sets is not arbitrary. Woodward’s addition is that: ‘perhaps the aspiration of the metaphysician of causality is to find a form of description that represents “all” of “causal reality” in a complete, non-partial way that is untainted by any purpose-relative human concerns (i.e., the sort of description that God would produce, if only He existed) but this isn’t my project.’ (Woodward 2008: 211). This is an acknowledgement that the choice of variables involves the purposes of one’s inquiry and, subsequently, direct causation is not completely independent from the agent’s choice. When rejecting ‘God’s eye’ viewpoint, Woodward seems to go a step closer to Price’s perspectivalism,

rejecting to accommodate all-knowing agents, unable to engage into deliberation on this view (see Price 2007: section 9). While it is essential for Woodward's account that the choice of variable sets not be arbitrary, it is difficult to see how acknowledging the importance of human concerns when choosing variable sets can be given a completely human-independent interpretation.

Henschen (2015) can supplement this debate for the purposes of emphasizing the issue of subjectivity and variable choice. As mentioned above, Woodward can reject Strevens's particular formulation of the objection, referring to fine graining (i.e. adding more variables to the set) on the grounds that fine-graining cases can be resolved by turning direct causes into contributing causes. Nevertheless, Henschen further argues that the main problem with variable choice is not fine graining, but with the concept of 'serious possibility':

since what an epistemic subject is prepared to accept as serious possibility is inter-subjectively (and, perhaps, even intra-subjectively) different, two epistemic subjects can come up with variable sets  $V$  and  $V'$  that do not just represent fine - or coarse-grained versions of the other but variable sets that are different in the sense that  $X$  is a direct type-level cause of  $Y$  when  $X$  and  $Y$  are elements of  $V$ , and not a direct type-level cause of  $Y$  when  $X$  and  $Y$  are elements of  $V'$ . (Henschen 2015: 3302).

He further illustrates this with a case from the special sciences where 'researchers can differ with respect to what they are prepared to accept as serious possibility' (Henschen 2015: 3303), ending up using divergent variable sets where different variables are connected through type-level direct causation. This discussion shows that the variable set relativity of causation under interventionism has difficulties in meeting both complete agent-independence as a mark of objectivity, as well as the weaker version proposed above, where agents with different capacities, goals, values, theoretical assumptions can make causal claims with uniform truth values.

While Woodward (2016) addresses methodological issues concerning variable choice, this does not solve the issue of causation being dependent on human choice. I hold that the distinction between objective (the structure of deliberation common to all agents through the detached perspective) and subjective (particular agents' research interests, goals, values, and theoretical assumptions) elements of the agent's perspective can shed more light on the issue. If the agent's choice is defined within the framework of the detached perspective, where different agents can specify their particular epistemic values, or research assumptions and reach a set where a variable counts as a cause for another variable, then the truth conditions for causal claims are not compromised by divergent beliefs or interests. Thus, my concept of objectivity is coherent with Woodward's considerations on objectivity as independence of subjective factors (although not with complete agent-independence). The main difference to stress is that my concept focuses on the ontological aspect, that is, on the constitutive role of the agent's perspective concerning the concept of causation, or the problem of variable choice. The further methodological issues concerning

factors that go beyond psychological state can be sorted out on methodological grounds, which are beyond my purposes here.

Unlike the agency account, Woodward's concept of intervention does away with the human agent. However, the human perspective comes back with the use of variable sets when defining causal concepts. Even though the problem of causal selection is relevant for any theory of causal explanation (see Hesslow 1988), it is particularly pressing in Woodward's case since the very concept of causation is defined through variable sets - and, given the commitment to realism, it goes beyond the methodological, becoming an ontological problem. However, a more permissive concept of objectivity, including the human perspective, could explain how agreement between different agents concerning which causal claims are true is possible.

## **6. Conclusions**

In this paper I advanced a way of clarifying the meaning of objectivity with regards to causation in order to overcome the shortcomings of the current debates in the literature. Particularly, I argued against the assumption that agent-dependence would unavoidably compromise the reliability of causal claims in scientific context. Drawing from the scientific objectivity discussion, this concept focuses on causal claims and the agent's thought processes as constitutive of causation. Along the same lines, my discussion separates the causal realism – projectivism debate from the one on objectivity and subjectivity in causal reasoning.

Through this view, I argued that projectivism can achieve objectivity insofar as objectivity presupposes that the truth values of causal claims should not be dependent on features that vary with different agents. My approach focuses on the ontological aspect, which seems to have given way to methodology in recent debates on causation. My argument brings together Price's concept of 'homogenous perspective' with his considerations on the deliberation situation along with the idea that in decision making, as well as in scientific reasoning there is a detached mode (inspired by Douglas' detached objectivity). This allows agents to make claims referring to means-ends relations all agents could exploit, rather than their particular capacities and goals. While the detached perspective could build up to the ideal agent's viewpoint, it is not required.

My treatment of objectivity further serves in addressing further issues that manipulability theories of causation face. I argued that, despite the claim to realism, Woodward's account does not escape the agent's perspective, which appears in the context of variable choice. The worry about objectivity and truth conditions for interventionist causation can be dealt with from the view inclusive of the detached perspective defended above.

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## References

- Beebe, H. (2007) 'Hume on Causation: A Projectivist Interpretation', H. Price & R. Corry (eds.), *Causation, Physics, and the Constitution of Reality: Russell's Republic Revisited*, Oxford University Press, pp. 224-249.
- Buzzoni, M. (2015) 'The Agency Theory of Causality, Anthropomorphism and Simultaneity', *International Studies in the Philosophy of Science* 28:4, 375-395.
- Collingwood, R.G. (1998) *An Essay on Metaphysics*, Oxford: Clarendon Press.
- Douglas, H. (2004) 'The Irreducible Complexity of Objectivity' *Synthese* 138: 453–473.
- Dummett, M. (1978) 'Bringing About the Past', in *Truth and Other Enigmas*, Duckworth, pp. 333-50.
- Glanzberg, Michael, (2016) "Truth", *The Stanford Encyclopedia of Philosophy* (Fall 2016 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/fall2016/entries/truth/>>.
- Henschen, T. (2015) 'Ceteris Paribus Conditions and the Interventionist Account of Causality', *Synthese* 192(1): 3297–3311.
- Hesslow, G. (1988) 'The problem of causal selection', in Denis J. Hilton (ed.) *Contemporary Science and Natural Explanation: Commonsense Conceptions of Causality*, New York University Press (1988), pp. 11-32.
- Menzies, P. & Price, H. (1993) 'Causation as a Secondary Quality', *British Journal for the Philosophy of Science*, 44, pp. 187–203.
- Price, H. (1991) 'Agency and Probabilistic Causality', *British Journal for the Philosophy of Science*, 42, pp. 157–76.
- Price, H. (2007) 'Causal Perspectivalism', in H. Price & R. Corry (eds.), *Causation, Physics, and the Constitution of Reality: Russell's Republic Revisited*, Oxford University Press, pp. 250-292.
- Price, H. & Weslake, B (2009) 'The Time-Asymmetry of Causation', in Beebe, H., Hitchcock, C., Menzies, P. (eds), *The Oxford Handbook of Causation*, pp. 414-443.
- Price, H. (2016) 'Causation, Intervention and Agency: Woodward on Menzies and Price', in H. Beebe, C. Hitchcock, H. Price (eds.), *Making a Difference*, Oxford University Press (in press).
- Reiss, J. & Sprenger, J. (2016) 'Scientific Objectivity', *The Stanford Encyclopedia of Philosophy* (Summer 2016 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/sum2016/entries/scientific-objectivity/>>.

- Strevens, M. (2007) Essay review of Woodward, *Making Things Happen*, *Philosophy and Phenomenological Research* 74: 233-249.
- Strevens, M. (2008) Comments of Woodward, *Making Things Happen*, *Philosophy and Phenomenological Research* 77: 171-192.
- Williamson, J. (2005) *Bayesian Nets and Causality*, Oxford University Press.
- Woodward, J. (2003) *Making Things Happen*, Oxford University Press.
- Woodward, J. (2008) 'Response to Strevens', *Philosophy and Phenomenological Research* 77:1 (2008): 193-212.
- Woodward, J. (2013) "Causation and Manipulability", *The Stanford Encyclopedia of Philosophy* (Winter 2013 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/win2013/entries/causation-mani/>.
- Woodward, J. (2015) 'Methodology, ontology, and interventionism', *Synthese* 192 (11): 3577-3599.
- Woodward, J. (2016) 'The problem of variable choice', *Synthese* 193 (4):1047-1072.