

Economics, Agency, and Causal Explanation

William Child

University College, Oxford

I shall consider three questions about economics, agency, and causal explanation. First, what is the connection between economics and agency? I argue that causation and explanation in economics fundamentally depend on agency; so a philosophical understanding of economic explanation must be sensitive to an understanding of agency. Second, what is the connection between agency and causation? I defend a causal view of agency-involving explanation against various arguments from the non-causalist tradition. If agency is fundamental to economic explanation, I argue, then so is causation. Third, what is the connection between causal explanation and the natural sciences? I argue for the following combination of views. On the one hand, the causal explanations given in economics and other social sciences are different in kind from those of the natural sciences. On the other hand, the causal relations charted by the social sciences do not float free from the causal relations charted by the natural sciences.

1. Economics and agency

In this section, I defend the thesis that explanation in economics always depends on, or is mediated by, phenomena that essentially involve agency. When we spell out the causal relations that are charted in economics, it is clear that the mechanisms by which economic causes produce their effects are always, ultimately, dependent on human agency.

In some cases, the dependence of economic explanations on agency is very obvious, because what is being explained is itself an action or a set of actions. If we explain why British people generally save less than Japanese people, for instance, we must explain why certain people make certain choices or act in certain ways. And we cannot do that without employing the concepts of agent and action.

In other cases, considerations of agency are not so close to the surface. Thus, there are economic explanations in which neither the explanandum nor the explanans directly mention actions or agents. When we spell out the mechanism by which the effect was produced in such cases, however, agency quickly comes into the picture. Consider, for instance, the claim that inflation in England in the 1580s was caused by an increase in the money supply. That claim makes no immediate reference to any human actions or any instance of agency. But when we ask how, or why, inflation was caused by an increase in the money supply it is easy to see that the explanation depends on agency-involving phenomena. To simplify: the influx of gold from the Americas led to an increase in the amount of gold in the hands of consumers and, thereby, increased the money supply; when shopkeepers tried to raise the prices of goods, therefore, customers were able to pay the higher prices rather than deciding not to purchase the goods at all, as they would previously have done; so the prices that people set and paid for goods generally increased; which is to say – there was inflation. Or again, take the claim that the UK economy shrank slightly in the second quarter of 2018 because there were severe storms in April. Again, that explanation does not itself mention actions or agency. But we see how the explanation depends on facts about actions and agency when we spell out how it was that the bad weather caused the economy to shrink. Because of the storms, many people decided to stay at home and not to buy the goods and services they would otherwise expect to buy in the spring: summer clothes, barbecues, sports equipment, outdoor

holidays, and so on. So firms did not sell as much as they had planned, and the overall level of economic activity decreased: the economy shrank.

That is the general pattern. It is worth mentioning two apparent exceptions: cases where there might seem to be explanations in economics that are not underpinned by agency. The first is game theory – which is, of course, a major area of activity within the discipline of economics. Explanations within game theory do not mention human actions at all. Game theory is the study of pure rationality: what it would be rational for an agent to believe, or prefer, or choose in such-and-such circumstances, given specified information, aims, and preferences. That is a purely abstract, theoretical enterprise. Explaining why such-and-such an action would be rational in such-and-such circumstances is a genuine form of explanation. But it has nothing to do with causally explaining anything. Nor, *a fortiori*, is there any question of spelling out any mechanisms that underpin such explanations and revealing them as involving instances of agency. When we apply the theoretical structure of game theory to actual cases, however, assuming that real people are more or less rational, and using the theory to predict or explain their behaviour in situations of choice, then we are once more dealing with agency and our explanations will be underpinned by facts about agents and their actions. The claims of game theory itself, then, are not concerned with action or agency. But that is not a counter-example to the general claim that economic explanation essentially depends on agency-involving phenomena. For, though game theory itself does not aim to explain any actual phenomena, when the conclusions of game theory are applied to real-world phenomena, the resultant explanations do invoke and depend on agency.

A second apparent exception to our general principle relates to automated buying and selling. Suppose that the stock market fell because there was a sudden worsening in the exchange rate. What was the mechanism that produced that effect; how did the worsening in the exchange rate bring about a fall in the stock market? Before the advent of automated trading, the mechanism would, as we have said, have involved human agency: people making decisions to buy and sell, in the light of their knowledge, expectations, and preferences. But in circumstances where changes in the stock market are produced by high volumes of automatic trades, a change in the exchange rate can trigger a fall in the market by triggering mass automated selling, without the involvement of any process of reasoning or agency at all. To that extent, some of the causal processes studied by economics can operate without any process of human agency. But that phenomenon does not undermine the general principle that causation and explanation in economics depend on agency. In the first place, there could not be an economy that worked entirely automatically, with every instance of buying and selling operating independently of any human agency. If it is to count as part of an economy at all, the structure of automated dealings must at some point make contact with real, human decisions and actions. In the second place, agency is involved in the design and implementation of the programmes that carry out automated deals. So part of the answer to the question, why the drop in the exchange rate caused a fall in the stock market, involves an appeal to agency: individuals and organizations programmed their trading systems to behave in exactly that way.

Explanation in economics, then, essentially depends on agency.

2. Agency and causation

Many philosophers have been attracted by the idea that explanation in the social sciences is radically different from explanation in the natural sciences. Some of those philosophers have held that the essential difference between the two is that, whereas the natural sciences offer causal explanations, the social sciences offer non-causal, interpretative or hermeneutic explanations. And, in the light of §1, one way to develop that position is to argue that explanation that appeals to agency is a form of non-causal explanation. I shall argue, against that view, that there is no tension between agency and causation. Agency is a causal phenomenon. And explaining an action in terms of the agent's reasons for performing it is a kind of causal explanation. I shall defend that view against a number of

arguments from the non-causalist tradition. If agency is fundamental to economic explanation, as I have argued in §1, then so is causation.

Many different positions have been associated with the phrase ‘causal theory of action’. And the claims that are rejected by critics of causalism often turn out to be different from those that are defended by causalists themselves. So it is important to be clear about what a causal view of action or agency involves. The central claim, as I understand it, is that reason explanation is a form of causal explanation; explaining an action by citing the agent’s reasons for performing it is a way of causally explaining the action. (The same applies, *mutatis mutandis*, for explaining an agent’s beliefs or intentions by citing her reasons for forming or retaining them.) Causalists about action are often taken to be making a different and more ambitious claim: that we can give a non-circular analysis of what it is for something to be an action in terms of the concepts of bodily movement, belief, desire or pro-attitude, and causation. But that is no part of the causal theory as I understand it. Suppose that Sarah raised her arm. The central claim is, as I have said, that explaining why Sarah raised her arm by citing her reason for doing so is a form of causal explanation. The aim of the causal theory is to understand the form of that kind of explanation; it is not concerned with analysing the phenomenon of action into simpler parts. So arguments against the possibility of a reductive account of what it is for something to be an action are not in themselves arguments against a causal view of reason-explanation. The causal theorist can accept that ‘Sarah raised her arm’ and ‘Sarah’s action of raising her arm’ are basic and unanalysable.

I shall defend the causal view of reason-explanation against two criticisms that are prominent in the non-causalist tradition. The first is that there is no good reason to accept the causal view and, in particular, that Donald Davidson’s classic argument for a causal view of action is ineffective.¹ The second is that the causal view cannot be true because the character of reason explanation is inconsistent with the requirements of causal explanation. I will respond to those criticisms in turn.

2.i Defending the basic argument for a causal view of reason-explanation

What is Davidson’s argument for a causal view of reason-explanation? Here are two famous passages from ‘Actions, Reasons and Causes’:

- a person can have a reason for an action, and perform the action, and yet this reason not be the reason why he did it. Central to the relation between a reason and an action it explains is the idea the agent performed the action *because* he had the reason (Davidson 1963, 9).
- One way we can explain an event is by placing it in the context of its cause; cause and effect form the sort of pattern that explains the effect, in a sense of ‘explain’ that we understand as well as any. If reason and action illustrate a different pattern of explanation, that pattern must be identified (Davidson 1963, 10).

We can summarize Davidson’s point like this. We can explain S’s ϕ -ing by citing her reason for ϕ -ing. Suppose R was S’s reason for ϕ -ing. Then we can say that S ϕ -d because R, or because she had R. To understand what kind of explanation that is, we need to understand the force of the ‘because’ that it contains. And reflection shows that there is no serious alternative to understanding the ‘because’ as a causal ‘because’. Explaining an action by citing the agent’s reason, then, is a form of causal explanation.

A natural response to Davidson’s argument is to wonder whether he has given us any reason at all for thinking that the ‘because’ in reason-explanation has to be a causal ‘because’. After all, ‘because’ is often used in ways that have nothing to do with causation. Consider the following cases: ‘7 is a prime number because it is divisible only by 1 and itself’, ‘The striker was offside because there were no defenders between her and the goalkeeper when the ball was passed’, ‘Mary is my sister-in-law because she’s married to my brother’. In each of those sentences, ‘because’ occurs in an explanation. But none of those explanations involves causation, and none of those instances of

¹ For Davidson’s argument, see Davidson 1963.

‘because’ is a causal ‘because’. So what is it about the ‘because’ in reason-explanation that justifies the claim that it is a causal ‘because’? To answer that question, we need to consider what it is that a reason-explanation explains. When I explain why someone did something, I am explaining a change or occurrence in the natural world: I am explaining why something happened; why an event occurred. And to explain why something happened, or came about, is in its nature to give a causal explanation. Non-causal uses of ‘because’ can explain many things. They can explain why a number – something that has no causes or effects – is a prime number, by showing how it meets the definition of a prime; they can explain why a player, whose existence and position on the field are taken as given, counts as being offside, by showing how she meets the conditions for being offside; they can explain why a person, whose existence and marital status are taken as given, counts as my sister-in-law, by showing how she meets the conditions for being my sister-in-law (she qualifies as my sister-in-law by being married to my brother, rather than by being my wife’s sister). But a non-causal explanation can never explain why something happened or came into existence, or why something changed in the world. To explain those things, we need a causal explanation.²

With that in mind, we can consider a particular version of the current objection to the argument for causalism. It is sometimes claimed that Davidson’s argument for causalism depends on the gratuitous assumption that there is only one kind of explanation: causal explanation. And, it is said, there is no reason to accept that. So we can respond to Davidson’s argument by insisting that, contrary to what he claims, there is an alternative, non-causal way of understanding the ‘because’ in reason-explanation; it can be understood in terms of the primitive, unanalysable relation of acting for a reason. Here are two examples of that kind of argument:

The most direct response to Davidson [is] that the difference between those reasons for which the agent did in fact act and those for which he might have acted but did not is not a difference in causal role at all. It is just the difference between the considerations in the light of which he acted and other considerations he took to favour acting as he did but which were not in fact ones in the light of which he decided to do what he did. (Dancy 2000, 163)

Pressed to state in other terms the difference between having a justification for acting and acting on it, one reply is that it can’t be done and doesn’t have to be. Thus Dancy takes the relation, *on the ground that*, as primitive. Davidson gives no argument against this. (Setiya 2009, 145)

The suggestion, then, is that we can simply treat the ‘because’ in ‘She ϕ -d because she had R’ as picking out a primitive relation. So Davidson’s grounds for a causal view of reason explanation ‘are radically inadequate’ (Wilson 1985, 40); there is no case for causalism at all. But this line of response to Davidson’s argument is completely ineffective. It misunderstands the structure and force of the argument.

The causalist about reason-explanation can agree that we can think of the ‘because’ in ‘She ϕ -d because she had reason R’ in terms of the relation of *acting for a reason* or *acting in the light of a reason*. If she ϕ -d because she had reason R, then it is indeed true to say that she ϕ -d *in the light of* reason R or, more simply, *for* reason R. The causalist can also agree that the relation of *acting for a reason*, or *in the light of a reason* is primitive; it cannot be reductively analysed in other terms. But none of that does anything to weaken the force of the argument for causalism. The fundamental point of the argument is this: reflection on the form of reason-explanation shows that the ‘because’ in ‘She ϕ -d because she had R’ is a causal ‘because’ because of what a reason-explanation is

² There may be events or changes that have no causes. By they are not counterexamples to the general principle that explaining why something happened or occurred requires a causal explanation. If an event has no causes, then its occurrence cannot be explained in some non-causal way; on the contrary, it cannot be explained at all.

explaining: namely, a change or occurrence in the natural world. And that fundamental point is untouched by these arguments. The critics insist that the relation between a reason and an action that is explained by that reason is simply the relation of acting *for* the reason. But that is not an alternative to the causal view. For the force of Davidson's original argument still applies to the relation of *acting for a reason*. The argument shows that the notion of acting *for reason R* is itself a causal notion; and explaining an action by citing a reason *for which* the agent acted is itself a form of causal explanation.

Of course, as I have said, not every 'because' is a causal because, and not every kind of explanation is a form of causal explanation. So in some cases, it would be perfectly correct to respond to an argument with the superficial appearance of Davidson's argument by insisting that the 'because' in question marks a primitive, non-causal relation. Suppose I am considering possible reasons for the British Museum to return the Parthenon Marbles to Athens. Here are three such reasons:

- i. The British Museum damaged the Marbles in the 1930s by inappropriate cleaning;
- ii. The people who sold the Marbles to Lord Elgin were colonial rulers, not Greeks;
- iii. Athens would be a culturally and physically superior site for displaying the Marbles.

Suppose that I have the following views. The Marbles should be returned to Athens. Each of (i)-(iii) is true. Each of (i)-(iii) gives a genuine reason for returning the Marbles; they all count in favour of returning the Marbles. But, all things considered, the reason why the Marbles should be returned is (iii), and not (i) or (ii): it would still be right to return the Marbles even if (i) and (ii) were false; and it would not be right to return the Marbles if (iii) were false, even if (i) and (ii) were still true.

Now, we can ask what the difference is between 'The Marbles should be returned *and* Athens would be a better site for displaying them than London' and 'The Marbles should be returned *because* Athens would be a better site for displaying them than London'; what is the force of the 'because' in the latter proposition? In this case, it would plainly be wrong to conclude that the difference between 'p *and* q' and 'p *because* q' is a causal difference. Correspondingly, it is quite correct to say that the 'because' in 'The Marbles should be returned *because* Athens would be a better site for displaying them' expresses a primitive, non-causal relation: the relation of being *the reason why* something should be done. The reason for saying that the 'because' in this case is non-causal is, as before, the nature of what it is that is being explained. When I explain why the Parthenon Marbles should be returned to Athens I am not explaining why something happened; I am not explaining the occurrence of anything: a change or an event in the world. I am explaining why a particular course of action would be right. And to do that is not to give a causal explanation.

The intuition behind the response to Davidson's argument that is given by Dancy and others is that the difference between 'p *and* q' and 'p *because* q' is not always a causal difference. But, as I have said, the defender of Davidson's argument agrees with that point. Whether or not a particular 'because' is a causal one depends on the kind of explanation involved in the particular case. It seems clear that, when we explain someone's doing something by citing her reason for doing it, we are explaining why something happened, or why an event occurred. And to do that is to give a causal explanation.

2.ii The many faces of causal explanation

Many writers in the non-causalist tradition have argued that reason-explanation cannot be a form of causal explanation because it does not fit the pattern of explaining something in terms of its causes. I give three examples of arguments of this kind.

- Reasons for actions are not mental states, like beliefs, desires, intentions and so forth. Rather, they are facts about the non-mental world. So they are the wrong sorts of things to be the causes of action.³
- Reason-explanation works by making actions intelligible by putting them in a context that makes sense of them. It does not work by citing the causes of actions.⁴ (Melden, Tanney)
- To explain *S*'s ϕ -ing by citing her reason for ϕ -ing is to give the purpose with which she ϕ -d: to say what she was trying to do by ϕ -ing. But the purpose with which someone acted is not the cause of their acting. Suppose that Bob stood on his head in order to impress Claudia. Impressing Claudia was his purpose in standing on his head; he was trying to impress Claudia by standing on his head. But his trying to impress Claudia *just was* his standing on his head; it was not something else, which preceded his standing on his head. So it could not be the cause of his action.⁵

These anti-causalist objections, and others like them, I shall argue, work by assuming a very restricted conception of the form that a causal explanation can take. In particular, they take a very restricted view of what reason-explanation would have to be like in order to be a form of causal explanation. Very crudely, they assume that something will only qualify as a causal explanation of an action if it works by citing states or events within an agent that cause the movements of her body. But causal explanations are much more various than that. Once that point is appreciated, we can see that much of what the critics have urged about the ways in which reason-explanations work is in fact perfectly consistent with a causal view of reason-explanation.

Causal explanations in general can take many forms. To give a causal explanation is just to tell, or suggest, a causal story that helps to make something intelligible. But there are many ways in which we can tell a causal story. And something can be a causal story without explicitly citing the cause of an effect. We can illustrate that point with an example. A wine glass breaks. We ask why it broke. Here are some possible answers:

- a) It was hit with a hammer
- b) It was fragile
- c) It was made of inferior material
- d) The soprano's voice was so piercing
- e) The washing-up water was too hot.

Those are all, in the relevant circumstances, legitimate explanations of the glass's breaking. And they are all causal explanations. But they take different forms. In (a), an event (the glass's breaking) is explained by citing its cause (its being hit by a hammer). In (b) and (c), we are not told exactly what it was that caused the breaking of the glass. Instead, we are told about a property of the glass (it was fragile; it was made of inferior glass). That explains the effect (the glass's breaking) by making it intelligible why some event (which is not specified, and may be unknown) caused the effect that it did. If the glass had not been fragile, or had not been made of inferior material, the event that actually caused it to break would not have done so. In (d) and (e) we are told about a feature of the cause, or of the surrounding circumstances, which, as before, explains the event by allowing us to see why the cause had the effect it did. In (d), it is implicit that the cause of the glass's breaking was the soprano's singing; but if her voice had not been so piercing, her singing would not have had the effect it did. In (e) it is implicit that the cause of the breaking was the glass's being put

³ For the view that an agent's reasons for acting as she does are typically facts about the external world, rather than mental states, see e.g. Alvarez 2010, ch 6. Alvarez herself remains neutral about the implications of her view of reasons for the thesis that reason explanation is a form of causal explanation (see Alvarez 2010, pp. 199-200). But others are less cautious, and take the 'fact' view of reasons to be incompatible with a causal view of reason-explanation.

⁴ For a recent statement of this position, see Tanney 2009. As Tanney says, this kind of view goes back at least to Ryle 1949, as well as to Anscombe 1959, Melden 1961, and other work in the Wittgensteinian tradition of the 1950s and 1960s.

⁵ For this argument, see McLaughlin 2013.

in the washing-up bowl; but if the water had not been as hot as it was, that cause would not have produced the effect it did.

In the same way, an explanation of an action may take many forms, consistent with its being a causal explanation. We can illustrate that point in connection with two of the suggestions about forms of reason-explanation that were mentioned above.

Suppose we agree that reason-explanations often explain actions by citing facts about the external world, rather than by mentioning the agent's mental states. Thus, for example, she climbed out of the window *because the door was locked* (not: because she believed that the door was locked). He chose the salad *because it was healthier than the other options* (not: because he believed it was healthier). The facts that are appealed to in those explanations are not facts about the agents' mental states. But that is no barrier to understanding these explanations as causal explanations. For facts about the non-mental world can causally explain agents' doing things. Take the case where someone climbed out of the window because the door was locked. That explanation does not tell us what the triggering cause of her action was. But it tells us something about the context that makes it intelligible why the triggering cause, whatever it was, produced the kind of effect it did: an act of climbing out of the window, rather than an act of leaving by the door. Suppose that the triggering cause of her leaving the room was, say, her noticing that it was 3pm, or her receiving a message asking her to come to a meeting. We cite the fact that the door was locked to explain why she left the room through the window rather than the door. And that is a causal explanation. The fact that the door was locked only explains her climbing out of the window if she climbed out of the window *because* the door was locked. (Suppose she would have climbed out of the window anyway, whether or not the door was locked. Then it is not true that she climbed out of the window because the door was locked.) And there are the usual reasons for saying that that 'because' is a causal one.

Similarly, the causalist will accept that when we explain an action by giving the agent's reasons for performing it, we are explaining it in terms of the agent's aim or purpose. 'He was trying to impress Claudia', or 'In order to impress Claudia', are legitimate answers to the question, 'Why did he stand on his head?' They explain why he did what he did. But, the causalist will say, that is entirely compatible with the claim that reason-giving explanation is a form of causal explanation. As before, neither 'He was trying to impress Claudia' nor 'In order to impress Claudia' tells us the triggering cause of his action of standing on his head. But they do tell us something about the mental properties of the agent: that he intended to impress Claudia and believed that standing on his head would be a way of doing so. And that makes it intelligible why the triggering cause of his action, whatever it was (for instance, noticing Claudia approaching), produced the effect it did: an act of standing on his head. That is one kind of causal story that makes the occurrence of an action intelligible; it is a way of causally explaining the action.

2.iii Conclusion

We have found no reason for abandoning the view that explaining an action by giving the agent's reasons for performing it is a form of causal explanation. The suggestion that we can simply bypass Davidson's argument for causalism by treating the relation of *acting for a reason* as a basic, non-causal relation fails to understand the force of the argument. There may be good reasons for treating *acting for a reason R* as a basic, unanalysable relation. But if we do, we must recognize that the notion of acting for a reason is itself a causal notion. The suggestion that reason-giving explanations do not fit the template of causal explanation fails to appreciate the diversity of the kinds of causal explanation. I conclude that there is no prospect of distinguishing explanation in economics (and other social sciences) from explanation in the natural sciences by accepting (i) that economic explanation depends on agency, but holding (ii) that explanations that appeal to agency are not causal explanations. Social scientific explanation is indeed different in kind from natural scientific explanation. But the reason for that is not that social scientific explanation is non-causal.

It is, rather, that social scientific explanation is grounded in *reason-giving* causal explanation rather than non-reason-giving, merely physical, causal explanation.

3. Causation in the social sciences and in the natural sciences

It is sometimes said that the causal relations of the natural sciences are a misconceived paradigm for the social sciences. If we treat the social sciences as a form of causal science, it is said, we reduce human beings to natural objects; we drain human agency of moral content. And that distorts and falsifies the ontology of agents and actions that is fundamental to the social sciences. I agree that explanation in the social sciences is indeed distinctive; it is different in kind from explanation in the natural sciences. But that does not prevent social-scientific explanation from being a form of causal explanation; that was the burden of §2, above. Nor does it mean that the phenomena and causal processes that are studied by the social sciences are completely independent of the phenomena and causal processes that are the subject-matter of the natural sciences. That is the position I defend in the current section.

On the one hand, then, the phenomena and the explanations of the social sciences are irreducible to the phenomena and explanations found in the natural sciences. On the other hand, there is a close relation between the causal phenomena studied in the social sciences and the causal phenomena studied by natural sciences. We can put that relation in terms of determination. The low-level physical facts determine all the facts. If you completely determine the physical make-up of the world, and the natural scientific laws, then you completely determine all phenomena: including all the mental, moral, economic, sociological etc. properties of human beings. The same is true for causation. If you completely determine all the low-level causal facts, you determine all the causal facts: including the causal facts about agents and actions.

What should we say about the complaint that construing the social sciences as a form of causal science involves reducing human beings to natural objects? Well, human beings *are* natural objects. We are completely composed of matter, whose behaviour, at the micro level, is no different from the behaviour of other bits of natural stuff and can in principle be completely described and explained without appeal to the concepts of agency or reasons for acting. Our view of agency and reason-explanation must not conflict with that truism. But the truism does not imply that everything about human beings can be understood if we describe people at the level of their minute physical composition. It cannot be. Recognizing the distinctiveness of agency and reason-explanation, however, is consistent with accepting, first, that human beings are natural, material beings, and second, that fixing the low-level causal facts fixes the facts about agency. In that sense, the causal facts about agency are not independent of lower-level causal facts.

What should we say about the complaint that treating the social sciences as a kind of causal science distorts or falsifies the ontology of agents and actions? The mere idea that reason explanation is a form of causal explanation has no revisionary effects on the ontology of social science. The causal stories involved in accounts of agency, and in social science more generally, are stories about agents doing things and making choices in the light of their beliefs, preferences, circumstances, and so on. And, as I argued in §1, the causal mechanisms that underpin economic explanation essentially involve people. There is nothing distorting or revisionary in that. But will there be revisionary consequences for the ontology of social science if we also accept, as I have suggested, that all causal facts are determined by the low-level facts of physical causation? That depends on how exactly the relations between levels are claimed to work.

On one view, the ontology of the social sciences is the same as the ontology of the physical sciences. Causal reality, on that view, comprises a network of causally interrelated events, which constitute the common ontology of all human enquiry. Every causal story picks out and describes events that belong to this common, topic-neutral stock of events. But causal stories in different domains – the domain of the natural sciences and the domain of the social sciences, for instance – pick them out in different ways and organize them in different classes or patterns. So, in particular,

though the descriptions and explanations of common-sense psychology or the social sciences cannot be reduced to those of the natural sciences, they pick out the very same events. In that sense, the social sciences and the natural sciences have a common ontology.⁶

But that is not a plausible view of the relation between the different domains. Consider the relation between the mental and the physical. It seems clear that individual mental events, of the kind described in the vocabulary of common-sense psychology, are not identical to individual microphysical events, of the kinds described by neuroscience, or chemistry, or physics. For particular microphysical events are much smaller, both spatially and temporarily, than any individual mental event. A natural response to that point is to say that mental events are *composed of* microphysical events; wherever there is a particular mental event, we could in principle assemble a collection of microphysical events that collectively occupies the same spatio-temporal region as that mental event. That is true. But it does not save the picture of reality as comprising a single, topic-neutral stock of events that are common to all areas of enquiry. For the collection of microphysical events that jointly compose a particular mental event is not itself an individual physical event: there is no natural way of picking it out in the vocabulary of the physical sciences; it is of no particular interest from the point of view of the physical sciences; it does not figure in those sciences as a cause or effect. The existence of mental events does not require the existence of anything more than the totality of microphysical events. But, for the reasons just given, that does not mean that common-sense psychology and the physical sciences have a common ontology of events. The same goes for the social and human sciences more generally.⁷

We need a looser picture of the relation between different kinds or levels of description and explanation. Here is how I think things work. There are numerous different levels of description that we can occupy when we describe the world: the level of fundamental physics; the level of chemistry; the levels of psychology, economics, and so on. And there are numerous different causal explanations, which we can give when we occupy these different levels. Suppose, for instance, that someone buys a ticket from a parking machine. We can tell a physical story about the causes of the movements of her body that are involved in her doing what she did. And we can tell a common-sense psychological story about her acting for a reason. Those are both causal explanations. But they explain different things. The physical story explains the motion of a bit of a human body. The psychological story explains a person's doing something. But though the two causal stories are different, the psychological story is not completely independent of the low-level causal processes described by the physical story. When someone buys a ticket in order to park their car, physical causal processes go on in their body. If those physical process did not take place, there would be no action of buying a ticket. Mental causation, as we have said, does not float free of physical causation.

But if we insist that all the causal facts are determined by the low-level physical causal facts, don't we have to say something more about the relation between high-level and lower-level causal stories: about how exactly the two stories marry up? Some have argued that there can only be genuine causal explanations in psychology and the social sciences if there are detailed, law-like correlations between the higher-level phenomena identified by psychology or social science and the low-level, microphysical phenomena that determine the higher-level causal facts. If there are no such law-like correlations between the different levels, it is argued, then the explanations offered by psychology or the social sciences will be no better than the pseudo-explanations put forward by astrology or homeopathy. They will be stories that we tell ourselves: ways we have of trying to make sense of the world. But they will have nothing to do with why things really happen: they will not be true, or correct, causal explanations.

⁶ That is essentially the picture offered by Davidson's anomalous monism (see Davidson 1970, 1973, 1974).

⁷ For the argument summarized in this paragraph, see Hornsby 1980-81.

A response to that thought must address two questions. First, what reason is there to think that explanation in psychology and the social sciences is a genuine form of causal explanation? Second, what must be true of the relation between higher-level facts and lower-level facts in order for it to be true that the higher level facts are causally explanatory? I take those points in order.

We can have good reasons for thinking that psychology and the social sciences give genuine causal explanations, while astrology and homeopathy do not, without knowing anything in detail about any specific correlations between psychological or social scientific facts, on the one hand, and lower-level physical facts, on the other. In the first place, psychology and social science are successful explanatory practices, whose claims meet normal standards of explanatoriness. They put forward substantial causal claims whose truth is susceptible of confirmation or disconfirmation on the basis of experience. And importantly, explanations in psychology and social science do not compete with lower-level, physical causal explanations; they operate at a different level and have different explananda. So the phenomena they purport to explain, which have to do with agents' choices and actions, are not better explained in more basic, lower-level terms: on the contrary, they cannot be explained at that level at all. That contrasts with the purported explanations of astrology or homeopathy, which do compete with other explanations. Astrology aims to explain a person's characteristics and the success or failure of their relationships and career by reference to the positions of the planets. But the same phenomena can be fully explained in other ways without appeal to the positions of any heavenly bodies. Homeopathy aims to bring about and explain improvements in a person's state of health by reference, for instance, to the qualities of substances that are too dilute to contain any physical trace of their supposedly active ingredient. But the phenomena in question can be fully explained in other ways, without appeal to the principles of homeopathy.

So there are good reasons, on the basis of our ordinary knowledge, to regard psychological and social scientific explanations as genuine causal explanations. At the same time, I have suggested, we must accept a basic, background commitment to the idea that all causal facts are determined by low-level causal facts of the kind charted by the natural sciences. And if that is true, then in order for psychological and social scientific explanations to be genuinely causally explanatory, there must be some connection between the higher-level properties that we cite in giving such explanations and the underlying, lower-level causal facts that ultimately determine all the causal facts. If there were no connection at all, there would be no way in which a thing's possession of high-level psychological or social-scientific properties could affect its causal behaviour. But the connection need not be tight or systematic. What is required is just that the higher-level properties supervene on the lower-level properties: that is to say, that if two worlds are alike with respect to all lower-level properties, they must also be alike with respect to all higher-level, psychological, economic, sociological etc. properties.

The fact of supervenience alone is not enough, in itself, to show that psychological properties, say, are genuinely causally explanatory. The case for thinking that they are genuinely causally explanatory comes from the point sketched in the previous paragraph: that common-sense psychology offers causal explanations that meet the normal standards of successful explanatory practice. But in order for the explanations of psychology to be genuinely causally explanatory, as we know them to be, the supervenience claim must be true. For consider how things would be if the supervenience claim were not true. Two worlds could differ in mental respects without differing with respect to any lower-level physical properties. But in that case, those mental differences could make no difference to people's behaviour. For, we have said, the causal facts are fully determined by the low-level physical facts. If mental properties are to have any causal implications, then, they must supervene on the low-level physical facts. But there need be no stronger or more systematic relation between the two levels than that. Accepting that all the causal facts are determined by

lower-level physical facts is compatible with insisting on the distinctiveness of the social and human sciences and their irreducibility to the physical sciences.⁸

⁸ An earlier version of this paper was presented at the symposium, ‘Causation, Agency, and Supervenience’, at the Las Casas Institute, Blackfriars Hall, Oxford in July 2018. Some of the material was also presented at a workshop, ‘Ascription, Causation, and the Mind’, at the University of Utrecht in May 2016. I am grateful to the participants on both occasions for helpful comments and discussion.

References

- Alvarez, Maria 2010. *Kinds of Reasons: An Essay in the Philosophy of Action*. Oxford: Oxford University Press.
- Anscombe, G. E. M. 1959. *Intention*. Oxford: Basil Blackwell.
- Dancy, Jonathan 2000. *Practical Reality*. Oxford: Oxford University Press.
- Davidson, Donald 1963. "Actions, Reasons and Causes", in Davidson 1980.
- Davidson, Donald 1970. "Mental Events", in Davidson 1980.
- Davidson, Donald 1973. "The Material Mind", in Davidson 1980.
- Davidson, Donald 1974. "Psychology as Philosophy", in Davidson 1980.
- Davidson, Donald 1980. *Essays on Actions and Events*. Oxford: Oxford University Press.
- Hornsby, Jennifer 1980-81. "Which physical events are mental events?" *Proceedings of the Aristotelian Society*, 81, 73-92.
- McLaughlin, Brian 2013. "Why Rationalization Is Not a Species of Causal Explanation", in G. D'Oro and C. Sandis eds., *Reasons and Causes: Causalism and Anti-Causalism in the Philosophy of Action*, Houndmills: Palgrave Macmillan: 2013.
- Melden, A. I. 1961. *Free Action*. London: Routledge and Kegan Paul.
- Ryle, Gilbert 1949. *The Concept of Mind*. London: Hutchinson.
- Setiya, Kieran 2009. "Reasons and Causes". *European Journal of Philosophy*, 19, 129–157.
- Tanney, Julia 2009. "Reasons as Non-Causal, Context-Placing Explanations", in J. Tanney, *Rules, Reason, and Self-Knowledge*, Cambridge, MA: Harvard University Press, 2013.
- Wilson, George 1985. "Davidson on Intentional Action", in E. LePore and B. McLaughlin eds., *Actions and Events: Perspectives on the Philosophy of Donald Davidson*. Oxford: Basil Blackwell.