We are all talking nonsense

by Geoff Oliver

My attempts to persuade my Philsoc friends that I have developed a satisfactory account of causation have been totally unsuccessful. The problem with my account of causation is that it entails that we are all talking nonsense. People are not too keen on being told that they are talking nonsense! In this essay I present arguments to support the claim that, with respect to causation we are all talking nonsense. These arguments include a justification for a radical solution and arguments that show that talking nonsense is compatible with Hume's account of causation.

If we are all talking nonsense, the nature of change in this world must be other than what we take it to be. So, in the next section of the essay I present arguments that identify the agent of change in this world. It turns out, consistent with Newton's Laws of Motion, that the agents of change in this world are physical interactions.

If the agents of change are physical interactions, but our concept of causation is as defined by Hume, this prompts the questions: are we all suffering from causation blindness? If so how is this possible? The last section of the essay tackles these questions.

Justification for a radical solution

Since Hume published his essay on human understanding over 250 years ago, philosophers have been trying to develop a satisfactory account of causation. The reason that progress has not been made is not because of a lack of effort or ingenuity. A large number of accounts have been offered. The relata of the causal relation have been defined as: objects, events, states of affairs, facts, INUS conditions, counterfactuals, and others – nothing works. I believe (but am not certain) that each account has been defeated by at least one philosophical argument and at least one counterexample.

Surely this failure to provide a satisfactory account of causation is highly significant. It suggests that there is a fundamental flaw in our understanding of causation. And this further suggests that the solution to the problem of causation will involve some elements that are bound to be considered radical. The idea that our concept of causation is not coherent with the world and that we are all talking nonsense may just be adequately radical.

At this stage, a couple of examples of the lack of coherence between concept and world might be useful: It is quite common for people to say things like 'the car stopped because it ran out of petrol'. In terms of the way the world works this is nonsense. But I cannot see that it makes any sense from a purely philosophical perspective. What this causal statement is saying is that something that does not exist, in the part of the world under consideration, is causally effective. Surely this is self-evidently absurd.

I know that the causal statement under consideration accurately reflects what people say; I know that what is said is consistent with our (Hume's) concept of causation; nevertheless it is definitely not true, and its lack of coherence with change in the world renders it nonsense.

There is of course a correlation between a car running out of petrol and it eventually coming to a stop. But this correlation is sustained by what physicists call frictional forces; it has absolutely nothing to do with the lack of petrol. A perfect car, on a perfectly flat straight road, in a perfect vacuum, would maintain its speed forever.

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Similar arguments can be made against causes that are stated to be actions that did not happen; e.g the flowers died because Mary did not water them. The standard philosophical response is to argue that the Queen also failed to water the flowers (and me and you), but really this type of argument misses the point. How can a non-action be causally effective? A non-action cannot be an agent of change; the statement is nonsense. I find that many people are reluctant to accept this. Perhaps another way of looking at this might help. The flowers were destined to die; local interactions being such as to result in the evaporation of water. Mary failed to prevent the flowers from dying, Mary may well be responsible for the flowers dying, but Mary did not bring about a change that resulted in the flowers dying; she did not cause them to die.

Arguments in this section suggest an acceptable account of causation is likely to include elements that are radical. The examples that have been considered, show that at least some of our causal statements are nonsense.

In the next section it is shown that the correct use of our concept of causation provides no guarantee that causal statements are not nonsense.

Hume's concept of causation, understanding and nonsense

One response to my suggestion that our normal everyday causal statements are nonsense has been to suggest that these causal statements are consistent with our concept of causation and therefore such statements cannot be nonsense. It is the writer that is confused; he is not playing by the rules and is not employing the concept as everybody else does. I shall show that the use of the concept does not prevent people talking nonsense.

Hume's account of causation is much criticised by commentators (see Chapter 1 of the Cement of the Universe, for example). And it is not just one aspect of his account that is criticised; all aspects are criticised. This being so, it might be thought unsatisfactory to rely on Hume's account of causation to make my argument; however Hume's characterisation appears to be empirically accurate; it perfectly captures our use of causal language (I am not aware of any exceptions).

I suspect that Hume's account of causation perfectly captures our use of causal language because that is exactly what he set out to achieve. While Hume gives examples of causation in the world in his essays, there is no indication that his account of causation in the world is at all determined by studying the world. What is usually put forward as an account of causation in the world (or causation in the objects) is really an account of how humans employ causal language. It is an account of the concept of causation in the world, not an account of causation as it is in the world.

My suspicions are supported by Simon Blackburn:

> *Hume's philosophy was anthropocentric, through and through. His subject was not 'the nature of the world', but what we human beings make of the nature of the world. In other words, his subject was human nature and human understanding.*
>
> How to Read Hume; Chapter 1: The Science of Man (page 5)

Hume says that causation in the objects is such that C causes E iff:

- C is temporally prior to E

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- C is spatially contiguous to E
- C is constantly conjoined to E

For this to work, it is necessary to employ the principle of charity; 'object' needs to be given the widest possible interpretation. The spatial contiguity requirement must be interpreted in such a way that it allows for action at a distance. Once the principle of charity is employed Hume's account of the concept of causation in the world is perfectly consistent with our use of causal language.

Some examples should help to show that this is the case:

- Running out of petrol caused the car to stop.
- Not watering the flowers caused them to die.
- The moving white ball caused the red ball to move.

These are examples of what people say; they are also examples used by philosophers. At best, none of the above causal statements are true. The temporal separation between cause and effect that is a feature of the concept is not found in the world.

Now for the important part of the argument: Hume's account provides no explanation of the fact that cause and effects are constantly conjoined. The relation between cause and effect is a complete mystery:

> *When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other.*
>
> Section VII; Part1 of the Enquiries;

If the link between cause and effect is a complete mystery, and if users of causal language do so without knowledge of the relation between cause and effect, then users cannot fully understand what they are talking about; they could be talking nonsense and not realise it.

Use of causal language, consistent with Hume's concept of causation, provides no reason for believing that our normal causal statements are not nonsense.

Fundamentally, an account of causation should provide a means of understanding the nature of change in the world. The world does not change in accordance with our concept of causation. The world cannot be wrong.

The next section provides arguments that demonstrate how changes do occur in the world.

How the world changes

We don't pay too much attention to change in the world; many would say that is the job of physicists. This is not satisfactory. Philosophers do want to talk about the world; they are interested in problems concerning relationships between concepts and the world. Ignoring the world does not pay; the counterexamples that have defeated all accounts of causation have come from the world. Theories about the world are defeated if they are not consistent with the world.

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Earlier in this essay I claimed that it is not true that the moving white ball causes the red ball to move. I now want to prove that this is true and at the same time identify the nature of change in this world. A moving snooker ball (white) is taken to be the cause of motion in a second ball (red). This is what people say; it is definitely not true; and to the extent that what is implied is not coherent with the world, it is nonsense.

Before the white ball does bring the red ball into motion it has to travel from its starting position to the point where the balls collide. Consider the situation when the white ball has travelled half-way towards the red ball. At this time the white ball has been moving (for ½ of the total journey time), but the red ball has NOT moved. The moving white ball has NOT caused the red ball to move. The argument is already won, but for those that are not convinced, let us repeat the process by considering the situation when the remaining distance has been halved again. The white ball has now moved ¾ of the way towards the red ball; the red ball remains stubbornly stationary. We can repeat this process an infinite number of times. The motion of the white ball does NOT cause the red ball to move; the red ball remains stationary.

The red ball starts to move when it starts its interaction with the white ball. The word interaction is used because at the same time as the red ball is accelerated the white ball is deaccelerated

Another, more fruitful, way of considering this is to think about a possible world in which an identical collision takes place, but with the observer moving in the same direction at the same speed as the white ball. For this observer the white ball is stationary (relative to the observer). The red ball is observed to move towards the white ball. So in this world, according to our concept of causation it is the moving red ball that is a cause. This means that an identical collision is caused by both the white ball and the red ball. We need the concept of causation to work in all possible worlds, and quite obviously it does not. The concept is defective; it is not consistent with change in the world. What brings about change in both worlds is an interaction; there is nothing else that it could be.

In this world, the agent of change is a physical interaction. I need to try and explain this (my Philsoc friends have told me so).

The best way to understand physical interaction is to experience it. Place a heavy philosophy book on your desk, a history of philosophy or a collection of essays on the philosophy of mind would work well. Now slowly push the book across your desk, you will feel the book pushing back. If you stop pushing, the book will stop pushing back. It is this mutual interaction between physical objects that results in change. If you don't find this convincing you could try banging your head against a wall and try to work out whether the resulting pain was initiated by your moving head, the wall or an interaction between the two.

Finally for this section we need to take a look at Newton's Laws of Motion. Newton's first and third Laws of Motion define what might be thought of as the mechanical physical interaction (this is my view; this is not an orthodox way of looking at Newton's Laws). Hume was aware of Newton's work.

NI: Every body continues in a state of rest or in uniform motion (constant velocity in straight line) unless acted upon by an external force.

NIII: When one body exerts a force on a second body, the second body simultaneously exerts a force equal in magnitude and opposite in direction on the first body [i.e. action and reaction forces are equal in magnitude and opposite in direction.]

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These Laws could be rewritten:

NI*: Every body continues in a state of rest or in uniform motion unless it interacts with another body.

NIII*: When two bodies interact the forces on each body act simultaneously; forces are equal in magnitude and opposite in direction.

Newton's laws of motion are obviously relevant to some of the examples considered in this essay (the snooker balls and the car that ran out of petrol). Newton's Laws have a limited scope, but contemporary physicists would extend the scope to cover all change (all types of physical interaction) in this universe; they would say nothing changes in this world without a force acting. A force acting is a force that is involved in an interaction. Forces are sustained by interactions.

Interactions are the basis of all experimental science, this is particularly obvious in physics.

The so called properties of objects are inferred from interactions.

Theories about the world are tested and maybe falsified by interactions.

In this world nothing changes without a physical interaction. Interactions are the agents of change.

The problem of causation is not a problem for physicists; the physicists are studying the interactions. An experimental physicist needs the concept of causation, like a fish needs a bicycle.

Causation blindness

The fact that we do not have a satisfactory philosophical account of causation is evidence enough that we do suffer from causation blindness. If causation in the world was transparent we would all be able to give an account of causation. But this does seem odd. How is it possible that we do not grasp the nature of causation in the world? How can this be? This demands an explanation.

One of the reasons given for the difficulty in understanding quantum mechanics and relativistic physics is that we lack experience of the effects of these theories. Understanding these theories is difficult. But classical physics is supposed to be straightforward; it is consistent with our experience. We each have a lifetime of experience. So one would think it should be easy to give an account of causation in the world. Perhaps there are a number of contributing reasons.

The world that we live in is more complicated than is suggested by the equations of physics. Often the effects that we observe are the result of different types of interactions. In some cases the interactions produce chaotic effects. In some cases the true nature of an interaction is hidden; e.g. in the interaction that we associate with gravity the motion we notice is that of the falling apple; the movement of the Earth is imperceptible.

Another possible reason is that the equations that describe interactions are, for the purpose for coping with ordinary, everyday life, completely useless. A physicist attempting to catch a ball might just be able to bring to mind the relevant equations while a ball was in motion, but the idea that the trajectory of the ball could be calculated in real-time is a non-starter. A physicist cannot use his knowledge of physics to catch a ball. And if it is difficult to do the calculations for catching a ball, the

calculations necessary to determine tomorrows weather are completely impossible for a person to perform (our weather is the result of interactions of the molecules in the air).

So how do we manage to cope with the changes that confront us every day? It looks to me as if we use our concept of causation. We learn the regularities from childhood and we rely on them throughout our lives. If we want light, we interact with a switch; we have no need to understand the nature of electrons or the production of electromagnetic radiation. We say that switch causes light, this is nonsense (there is an interaction for that).

And so, we walk the Earth for the whole of our lives blind to the underlying nature of change. We get by quite nicely with the concept causation. The concept does not reflect the reality of change, but it works remarkable well. The concept is of no use for physics and is no use for philosophy. Philosophical arguments that make use of the concept of causation are highly suspect.

Bibliography

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