

Causal Qualities

In dealing with the motion of bodies we introduce the notion of mass, a quality which we do not observe but which we use to account for motion. We can only "define" it hypothetically, which is not really intelligible when you think it out, eg. it had a mass 3 g.m. = if we had fixed at it a given body (mass 1 g.m.) at 3 times its velocity which coincided with it the resulting body would have been at rest. is an unfulfilled conditional intelligible only as a consequence of a law, namely a law of mechanics stated in terms of mass. The truth is that we deal with our primary system as part of a fictitious secondary system; here we have a fictitious quality, and we can also have fictitious individuals. This is all made clear in any account of theories.

Singular propositions in the secondary system we believe with such and such degrees of probability just like in the primary system. Fictitiousness is simply ignored; we speculate about a body's weight just as much as about its position, without for a moment supposing that it has not one exact weight. The only difference is that we are ultimately not interested in fictitious propositions, but use them merely as intermediaries. We do not care about them for their own sake.

General propositions in the secondary system we treat just like variable hypotheticals, and so with chances.

A theory is a way of saying the singular primary propositions and the variable hypotheticals that follow from it. If two theories agree in these they are equivalent and there is a more or less complicated translation of one into the other. Otherwise they differ like two disagreeing variable hypotheticals.

No proposition of the secondary system can be understood apart from the whole theory to which it belongs.

If a man says "Zeus hurls thunderbolts" that is not nonsense because Zeus does not appear in my theory, and is not definable in terms of my theory. I have to consider it as part of a theory and attend to its consequences e.g. that sacrifices will bring the thunderbolts to an end.

It is possible to have a "realism" about ~~the~~ terms in the theory similar to that about causal laws, and it is equally foolish. "There is such a quality as mass" is nonsense unless it means merely to affirm the consequences of a mechanical theory. ~~Insufficiently~~ This must be set out fully sometime as part of an account of existential judgments. I think perhaps it is true that the theory of general and existential judgments is the clue to everything.

[What can be said about mass, is the possibility of defining it in some way? e.g. "arsenic" is not an indefinable noun, but was at the beginning of chemistry. NB hypothetical defn is not defn e.g. "if I were chemistry it, it would..." but I'm not]

An interesting problem arises as to what would happen if another man's thinking lay in my secondary system. [Or even my own thinking] ? some analogy to ^{algebra} ~~the~~ ^{circumstances} in laws of causation]

This would be the case if he were acquainted with mass or electric charge, but of course no one is. But I feel there may be more in it when we get to a sensational level.

For instance, a blind man is going to be operated on and thinks he is going to be able to see; then colour is to him (we can plausibly suppose) at present merely a theoretical idea, i.e. a term of his secondary system, with which he thinks he will be acquainted; i.e. part of his future thinking lies in his present secondary system [But what if it does?]

Of course, causal, fictitious or "occult" qualities may cease to be so as science progresses.

e.g. heat the fictitious cause of certain phenomena of expansion [and sensations but these could be disregarded and heat considered simply so far as it comes into mechanics] is discovered to consist in the motion of small parts.

So perhaps with bacteria and Mendelian characters or genes.

This means of course, that in a later theory these parametric functions are replaced by functions of the given system.

It is quite false to say with Norman Campbell that "really" is the sign of a theoretical idea. Any change in a theory by which some simple term is replaced by a complex one can be expressed by saying it "really" is so and so. Especially when a fictitious idea is replaced by primary ones as in the above. N.C. thinks e.g. atomic theory of gases explains primary e.g. temperature by fictitious e.g. bombardment. But the use of "really" is only natural on the exact contrary view.