

## Hume's account of rational and irrational reasoning

1. Empirical reasoning consists in the inference of one matter of fact or real existence from another. If I believe X to be the case and X gives me reason to believe Y, then I can infer that Y is the case. On Hume's analysis, this is just to say if I have a vivid impression or idea of X and X is associated with Y, then I will not only think Y at the prompting of X, I will also regard Y with more vivacity than I otherwise would.

2. Since causal association is, for Hume, the primary vehicle of all empirical reasoning, the basic structure of such reasoning is (i) a transition in thought from a lively perception (impression or lively idea) of a cause (effect) to the idea of its effect (cause), in which (ii) the imagination enlivens the idea to the point where it approaches the lively perception in vivacity.

3. The resemblance to Hume's explication of impressions of necessary connection in terms of customary association is unmistakable: an impression of necessary connection consists in what is felt in (i) a transition of thought from one perception to its customary associate such that (ii) if one is present in impression (or, by extension, in a lively idea such as a memory), the imagination will enliven the idea of its customary associate to the point where it approaches the impression in vivacity.

4. The only difference between Hume's description of empirical reasoning and his description of the impression of necessary connection is that the first speaks of cause and effect and the second of customary associates. But this difference disappears as soon as we recognize that, on Hume's account of cause and effect relations, the addition of the impression of necessary connection is what converts mere customary associates into a cause and an effect: it is this impression that makes them that, transforms the former into the latter.

5. The impression of necessary connection is not, however, the whole story of empirical reasoning, since most of the matters of fact and real existence we draw inferences about are not directly conjoined by customary association, that is, we have not perceived their conjunction often enough to form a habit of mind connecting them (for example, my inference from the electrical illumination of this room to the existence of a hydroelectric dam is not the result of having encountered the two conjoined so often in my experience that I have come to habitually associate them).

6. What a theory of empirical reasoning has to do is determine the circumstances when it is appropriate (i.e. rational, reasonable) to apply to objects that are not customary associates the idea of necessary connection we have copied from the

impressions that arise in cases of genuine customary association. For as soon as we apply the idea, we will thereafter infer the one from the other just as if they were customarily associates. So the question is: what signs guide us, what evidence do we need, before we apply the idea of necessary connection to new objects?

7. Hume's answer is **constant conjunction**. Whenever experience discloses that the existence of one object always and invariably follows upon the existence of another, we straightaway infer a causal connection between them, that is, we apply our idea of necessary connection to the objects and reason accordingly in the future.

8. That this procedure is the natural procedure of every human understanding should come as no surprise because it simply mirrors the causality of impressions of necessary connection: a constant conjunction between objects in my own experience eventually produces a customary association between them in my mind, and this, whenever one of the associates is present in an impression and the other in an idea, triggers in me the internal impression of reflexion that Hume equated with necessary connection.

9. This relationship is the reason why causal connections are universally regarded as rational when our belief in them is based on a constant experience. Thus, for Hume, any piece of reasoning counts as **rational (reasonable)** insofar as the belief accorded to the conclusion is proportioned to experience.

10. In particular, we are justified in according unqualified belief to a conclusion when its relationship to the premises is supported by a body of experience with the following features: (i) the matters of fact or real existence concerned in it have *frequently* been found to be conjoined, (ii) their conjunction is *constant*, and (iii) each conjunction is *closely analogous* to (resembles) the others.

11. If any of these features is lacking, then to the degree this is the case, rational reasoners scale back their belief proportionately. That is, they accord less belief, or no belief, to the inference from X to Y if they have encountered conjunctions of X and Y too infrequently to be sure that their concurrence is not coincidental, and/or if sometimes not Y but Z follows X (or sometimes not X but W precedes Y), and/or if the particular instances of X or Y are insufficiently similar (or the circumstances of their concurrence are insufficiently similar).

12. The reason we need to scale back our belief in any of these situations is that each has the effect of weakening the relation. Why? Because it is experience that produces customs, and it is in customary transitions of thought that necessary connections consist. Anything that diminishes the custom-producing efficacy of experience weakens the connection; and anything that weakens the connection weakens the vivacity (belief) that our imaginations will accord to the idea to which the transition is made.

13. Thus, if we were perfectly rational beings, we would be skeptical of causal connections between things in proportion to the extent that their connection was not supported by a body of experience with the three features listed in 10 above.

Alas, Hume was well aware that we are not always, or even usually, rational reasoners. Intense or ungovernable passions (phobias, desire for renown, jealousy, etc.); being educated by persons less concerned with fidelity to experience than conformity to tradition; superstition, gullibility, credulity; etc.: any of these factors (termed “unphilosophical probabilities” by Hume) can lead us to ignore or override the verdicts of experience.