

## *Sources of Modality*

One approach to understanding necessity and possibility is to seek their causes or grounds. We will focus on necessities (though an extreme view says there aren't any!), and facts about possibility can then be inferred. A starting point is to ask whether there would be any necessities if no physical universe existed to ground them. Some say that mathematics and logic might fall into this category, in which case they lack any cause or ground, and must be treated as 'primitive', or as having an 'intrinsic' necessity. However, we might say that although nothing physical exists, the necessities among ideas are indestructible and eternal (and might be linked to, or grounded in, the mind of God). Such bold speculation gains in strength if other attempts to explain necessity fail. If we consider what necessarily exists (such as God, by the ontological argument, or mathematical objects) rather than what is necessarily true, such things would exist more securely than the universe, so they would have to have intrinsic necessity.

If we turn to necessary truths that are grounded in nature, or whatever actually exists, then a preliminary difficulty has been identified. If something is the ground or source for a necessity, is that ground itself necessary, or might it be contingent? The challenge is that if it is necessary, then it needs further grounding, and if it is contingent it lacks the power to bestow necessity. This question may lead to scepticism (especially from keen empiricists) about all necessity, but maybe the grounding just needs to be true, or to work in combinations. If a truthmaker necessarily generates a truth, that introduces a necessity even when the truthmaker itself exists contingently. Similarly a logical implication may introduce a necessity, even if a contingent truth is the starting point.

Once we address the actual source or grounding of necessity, we must ask whether necessity is a single concept, or whether there are many types, and also consider the scope of necessity, as extensive or minimal. The normal view is that there are types of necessity (such as natural, logical and metaphysical), which may each have a quite different source. The question of scope is marked by extremes: rationalists often say that everything is necessary (usually grounded in the will of God), and empiricists often say that nothing is necessary, unless grounded in human decrees, by inventing definitions and rules. Between those extremes there is no consensus on the limits of necessity. The ancients viewed necessity as a power to which we must submit, where the moderns tend to treat it as a logical situation to be described. Hence the older view points to something which causes necessities (be it gods, ideas or nature), whereas the newer view accepts necessities as given, and in need of mapping rather than explaining. The older view (which is still with us) finds necessities in the intrinsic natures or essences of the components of reality, while the newer view often employs possible worlds as the basis of necessity (described as 'true in all possible worlds'). Both views are criticised by their opponents for failing to provide an explanation of necessity, either by offering the obscurity of essences, or the superficiality of 'possible worlds'. An unsurprising response is to just take necessity as a primitive concept, and refuse all attempts at analysis or explanation. Or we might divide necessities into the 'basic' and the 'derived', where the basic ones are just given, and the derived ones are grounded in those.

Empiricists distrust anything which cannot be directly experienced. We experience powerful forces and restrictions, but whether they are just strong or actually necessary is not found in the experience. Hence a less absolute grounding for our impressions of necessity is sought, and is found in our own languages and modes of thought, giving a 'conceptual' or 'conventional' view of necessity. It is clear that a 'father' necessarily has a child, but for a 'man' this is only contingent – it depends on the concept. The current rules of football have the power of necessity for current players, even though the rules could be changed – it depends on the convention. I may truly say 'I can't reach the top shelf', and someone else says 'yes you can' and offers a chair. The modality of 'can' depends on the context. The big claim made is that *all* necessities can be explained in this way. Thus mathematics and logic will be grounded in our creation of rules, concepts and supposed objects, such as numbers. A line is drawn between the necessary truths, which are said to be 'analytic' (true because of meaning), and the non-necessary (contingent) truths, which are said to be true because of our experiences ('synthetic').

Critics of this view point to the distinction between 'de dicto' necessity (that some proposition is necessarily true), and 'de re' necessity (that there are necessary facts about the components of reality, such as that rabbits are necessarily mammals, or an electron necessarily has negative charge). Convention may explain the former, they say, but not the latter. The conventionalist is likely to then reject *de re* necessities, claiming that the issue only concerns our propositions. The more determined critic will reply that actually the conventions and concepts that we use to describe the world are not just randomly made up, but are a response to how we find the world to be. Thus a man is both a 'man' and a 'father', but these concepts reflect different natural facts, and are not just invented like the rules of some game. The necessity in the rules of football is obviously conventional, but critics say this is nothing like the necessity we encounter in the nature of reality. This conventionalist view not only reduces talk of necessity to talk of language, but also undermines the aspirations of bolder philosophers to do metaphysics, where the idea of what is necessary seems to be crucial.

The older view, that necessities are grounded in the essential natures of things, is more optimistic. It was always assumed that necessities were only known a priori, and hence had a rather ethereal or rational nature, but a modern thought is that they can be found empirically, and are precisely what science has set out to discover. For the philosopher, the interest is in the basic dispositions or powers of the physical world, which can give rise to necessities, and explain why we must submit to them. For example, the natures of the 92 natural elements can never be different, because that constitutes what they are, and hence the multitude of molecules and chemicals that result embody a necessity which has hitherto been rejected. If all necessities are grounded in the natures of things, we can see logical necessity arising from the basic components of logic, and analytic necessity arising from the natures of words (so that 'bachelors are unmarried men' is necessary because of the nature of the word 'bachelor'). Metaphysical necessity is then treated as deriving from the general nature of reality, to be studied by both scientists and philosophers.