ABSTRACT. Kripke claims that certain kind terms, particularly natural kind terms, are, like names, rigid designators. However, kind terms are more complicated than names as each is connected both to a principle of inclusion and an extension. So, there is a question regarding what it is that rigidly designating kind terms rigidly designate. In this paper, I assume that there are rigidly designating kind terms and attempt to answer the question as to what it is that they rigidly designate. I then use this analysis of rigidly designating kind terms to show how Kripke’s reasoning regarding the necessity of ‘Hesperus is Phosphorus’ can be extended to statements involving kind terms like ‘Water is H$_2$O’ and ‘Tigers are mammals’.

One way in which natural kind terms are like names for Kripke (1980) is that they are supposed to be rigid designators – they are supposed to pick out the same things in all possible worlds. Suppose Ralph says, ‘If water were green, I would drink it rather than beer’. Ralph is considering a possible world in which water is green. What makes the water in that possible world water? It is not that it satisfies the conventional description – Ralph would normally think that water is colorless, not green. What matters, what makes it water, is that it bears a certain sameness relation to instances of water in the actual world – namely, that it has the same constituting property.1 When used to discuss possible situations, ‘water’ picks out not whatever it is that is superficially like water – but whatever has the constituting property. So ‘water’ picks out the same kind in all possible worlds. So, it is a rigid designator. There does not seem to be anything peculiar about water, so this reflection extends to other natural kind terms. So, they too are rigid designators.

Another way to see that natural kind terms are rigid designators is to notice that a description can be used to fix the reference of a natural kind term without thereby becoming synonymous with it. Suppose an early scientist had said, ‘Whatever entities compose lightning are electrons’. The description, ‘entity that composes
lightning’, is here used to pick out electrons but is not thereby synonymous with ‘electron’. Once we have assigned certain entities to the word ‘electron’, we can speak of those entities by means of our term ‘electron’ even in worlds in which nothing satisfies our original description. That is, if the word ‘electron’ were assigned a referent in this way, we could consider electrons in possible worlds in which there is no lightning or in which lightning is caused by positrons rather than electrons. This is analogous to a case in which we say, ‘Let’s call the man in the corner with the hat “Ralph”’ and then go on to consider possible worlds in which that very man is not in the corner with a hat and use the name ‘Ralph’ to do so. ‘Ralph’ can function this way because we use it to pick out the same object in all possible worlds (or at least all possible worlds in which he exists).2 ‘Electron’ is used in a similar fashion. Hence, it too is a rigid designator.

1. WHAT DO RIGIDLY DESIGNATING KIND TERMS DESIGNATE?

What do natural kind terms rigidly designate? In the case of names, what is rigidly designated is the object named. This suggests that what natural kind terms rigidly designate are their extensions. But, this is problematic insofar as it entails that a natural kind term has the same extension in all possible worlds. On this suggestion the same number of tigers exist (in fact, the very same tigers exist) in all possible worlds where there are tigers. This must be rejected since it gets our talk of possible worlds wrong – we certainly do allow possible worlds in which more or less and different tigers exist.

1.1. Cook’s Theory

Cook (1980) constructs a theory intended to avoid the above problem. He claims that the designation of a natural kind term can be ‘world-relative and yet rigid’ (p. 62). According to his theory, a natural kind term picks out all objects that cannot exist without being members of that natural kind. ‘Cat’ picks out all cats wherever they exist – ‘cat’ rigidly designates each and every cat. The designation of ‘cat’ is world-relative insofar as the extension of ‘cat’ varies from world to world since different cats can exist in different worlds.