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Legal Realism and Functional Kinds: Michael Moore's Metaphysically Reductionist Naturalism[2]

1. Introduction

Naturalism is a rather hot topic in contemporary philosophy, including in jurisprudence (or legal philosophy), and many prominent philosophers make it clear that they are naturalists in some sense or other. Although Brian Leiter,[3] in particular, has done a lot to push contemporary jurisprudents in the direction of naturalism, the best-known jurisprudential naturalists are probably still the American and the Scandinavian legal realists, who were active from the late 1920s into the 1970s. Metaphysically speaking, however, the Scandinavian and the American realists were (moral and legal) anti--realists, specifically, nihilists (or, in Moore's terminology, skeptics), and it may therefore be worth our while to consider a metaphysically *realist* version of naturalism, in order to acquaint ourselves with a broader range of naturalist accounts of law and legal phenomena. Accordingly, my choice of study object is the bold and complex theory of law espoused by Michael Moore, who maintains that there is no escaping metaphysical considerations in legal thinking, and that allegedly non-metaphysical approaches – such as the so-called interpretivist approaches defended by Ronald Dworkin and Stanley Fish,[4] among others, which deny the sense, or at least the significance, of metaphysical claims – fail either because they do after all make metaphysical assumptions of their own (of an idealist type), or else because they have little or no content.

Like the Scandinavian realists, Moore aims primarily, but not exclusively, at providing legal scholars and others with a defensible naturalist *ontology* of law and legal phenomena. Accordingly, he defends: 1) an account of scientific, mental, moral, and legal properties, according to which there are not only natural kinds, but also moral kinds and functional kinds, and 2) a causal theory of word meaning, according to which,

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[2] I am thankful to the anonymous reviewers for their very helpful comments on the paper.

[3] B. Leiter, *Naturalizing Jurisprudence*, Oxford 2007.

[4] R. Dworkin, *Law's Empire*, Cambridge 1986; R. Dworkin, *Objectivity and Truth: You'd Better Believe It*, "Philosophy and Public Affairs" 1996/25, pp. 87–139; S. Fish, *Is There a Text in This Class? The Authority of Interpretive Communities*, Cambridge 1980; S. Fish, *Doing What Comes Naturally*, Durham 1989.

natural, moral, and functional kind words get their meaning from the natural, moral, or functional kinds to which they refer. He maintains, more specifically that: 1a) distinctively legal phenomena, such as legal rights, legal duties, precedent, malice, etc. are functional kinds, in the sense that they have a nature that consists not in their structure, but in the function they fulfill in law (or in a given legal order), and 1b) the function of a functional kind is that effect, or those effects, of the functional kind, that causally contribute more than does any of its other effects to the goal of the larger system within which it occurs. He also maintains that: 1c) functional kinds can be reduced to indefinitely large disjunctions of natural properties, 1d) the relevant version of naturalism is metaphysically reductionist naturalism, and 1e) functional kinds play an indispensable role in the explanation of human behaviour.

I am inclined to agree with Moore that there is no escaping metaphysics in legal thinking and that any legal metaphysics should be naturalistic. I am, however, going to argue: 1) that the method for determining the function of a (purported) functional kind proposed by Moore is too indeterminate to be able to pin down the function in an unequivocal way; that this suggests, though it does not entail, that there is no fact of the matter as regards the question of what the function of a (purported) functional kind is, and, as a result, about what functional kind it is, or even whether it is a functional kind at all; and that there seems to be no way to remedy this troublesome indeterminacy. I am also going to argue – assuming, for the sake of argument, that functional kinds do exist and that we can determine their functions using Moore's method – 2) that it turns out to be very difficult to identify the properties that are part of the indefinitely large disjunction of natural properties which, on Moore's analysis, is identical to a functional kind, and that this suggests that Moore's claim that functional kinds can be reduced to such disjunctions needs further elaboration. Furthermore, I am going to argue 3) that the so-called logical connection argument according to which the relation between a functional kind and its effects is logical (or conceptual) threatens Moore's claim that functional kinds are indispensable to the explanation of human behaviour. Next, I am going to argue 4) that, in any case, functional kinds lack nomological unity, because they are necessarily multiply realizable, and that this consideration undermines Moore's claim that functional kinds are indispensable to the explanation of human behaviour; and 5) that Moore will therefore have to give up: a) the view that functional kinds can be reduced to indefinitely large disjunctions of natural properties, or b) the view that functional kinds are part of the best explanation of human behaviour, or both (a and b); that if he drops a), his naturalism will be undermined, and that if he drops b), he will have to admit either that functional kinds do not exist, or that they are not as interesting as they seem. Finally, on the basis of claims in points 1–5, I am going to argue 6) that the idea of a functional kind should not play a central role in any theory of law or legal reasoning, or any other theory of a legal phenomenon.

I begin by explaining what I take naturalism to be (section 2), and by introducing the distinctions between metaphysical realism and anti-realism and between legal realism and anti-realism (sections 3–4), together with Moore's causal theory of word meaning (section 5). I then proceed to consider Moore's method for determining the function of a (purported) functional kind (section 6), and the view that functional kinds can be reduced to indefinitely large disjunctions of natural properties (section 7). Having done that, I introduce and discuss the above-mentioned (points 1–6) objections to Moore's analysis (sections 8–11). I state my conclusions in section 12.

2. Ontological and methodological naturalism

Although the term "naturalism" lacks a definite meaning in contemporary philosophy,[5] writers on naturalism do make a fundamental distinction between: 1) ontological (or metaphysical) and 2) methodological (or epistemological) naturalism.[6] For example, according to John Post, metaphysical naturalism is the view that "everything is composed of natural entities (…) whose properties determine all the properties" of whatever it is that exists, and methodological naturalism is the view that "acceptable methods of justification and explanation are continuous, in some sense, with those in science".[7]

Ontological naturalism is thus a thesis about the nature of what there is: there are only natural entities and properties. Alexander Rosenberg, who defends a radical version of ontological naturalism, namely, physicalism, puts it as follows:

> What is the world really like? It's fermions and bosons and everything that can be made up of them and nothing that can't be made up of them. All the facts about fermions and bosons determine or "fix" all the other facts about reality and what exists in this universe or any other if, as physics may end up showing, there are other ones. Another way of expressing this fact fixing by physics is to say that all the other facts – the chemical, biological, psychological, social, economic, political, cultural facts – supervene on the physical facts and are ultimately explained by them.[8]

Other philosophers espouse more inclusive versions of naturalism. Paul Horwich, for example, objects to ontological naturalism of the Rosenberg type and defends instead a version of ontological naturalism, according to which "science rules" (as he puts it) within "the domain of phenomena that bear spatial, temporal, causal, and explanatory relations to one another".[9] One may, however, wonder how interesting ontological naturalism of the Horwich type really is. As Barry Stroud points out, this view has been accepted by most philosophers for at least 100 years: "They have taken it for granted that any satisfactory account of how human belief and knowledge in general are possible will involve only processes and events of the intelligible natural world, without the intervention of any supernatural agent".[10]

Methodological naturalism, on the other hand, requires that philosophical theorizing be continuous with the methods in the sciences. Horwich has this type of naturalism in mind when he states that only the scientific method can deliver genuine knowledge.[11] But, one wonders, what does it mean to say that philosophical theorizing is to be "continuous with the methods in the sciences"? This means, as I understand it, not only

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[5] See e.g.: H. Putnam, *The Content and Appeal of "Naturalism"*, in: M. De Caro, D. Macarthur (eds.), *Naturalism in Question*, Cambridge 2004, pp. 59–66; B. Stroud, *The Charms of Naturalism*, in: M. De Caro, D. Macarthur (eds.), *Naturalism*…, pp. 21–24.

[6] See e.g.: B. Bashour, H.D. Muller, *Exploring the Post-Darwinian Naturalist Landscape*, in: B. Bashour, H.D. Muller (eds.), *Contemporary Philosophical Naturalism and Its Implications*, London–New York 2014, pp. 1–2; P. Horwich, *Naturalism and the Linguistic Turn*, in: B. Bashour, H.D. Muller (eds.), *Contemporary Philosophical*…, p. 38; J. Post, *Naturalism*, in: R. Audi (ed.), *The Cambridge Dictionary of Philosophy*, Cambridge 1999, pp. 596–597; B. Stroud, *The Charms*…, pp. 22–24; S.J. Wagner, R. Warner, *Introduction*, in: S.J. Wagner, R. Warner (eds.), *Naturalism: A Critical Appraisal*, Notre Dame 1993, p. 12.

[7] J. Post, *Naturalism*…, pp. 596–597. Contemporary naturalists typically assume that a natural property is a property of the type that is studied by the natural or the social sciences. See e.g.: D. Brink, *Moral Realism and the Foundation of Ethics*, Cambridge 1989, pp. 22–23. Of course, this is not much of an explanation.

[8] A. Rosenberg, *Disenchanted Naturalism*, in: B. Bashour, H.D. Muller (eds.) *Contemporary Philosophical*…, p. 19.

[9] P. Horwich, *Naturalism*…, p. 38.

[10] B. Stroud, *The Charms*…, p. 23.

[11] P. Horwich, *Naturalism*…, p. 38.

that philosophy does not have epistemological authority over the sciences, but also that philosophy is not in any sense autonomous with respect to the sciences, that philosophy, as Mario De Caro and David Macarthur put it, simply "*is* science in its general and abstract reaches".[12] And this in turn appears to involve a rejection of a priori knowledge and, therefore, a rejection of the possibility of conceptual analysis, classically conceived.

In this article, I shall be concerned primarily with ontological naturalism in something like the sense suggested by Rosenberg, because I believe this is the more interesting version and, more importantly, because I believe this is what Moore has in mind when he defends a naturalist account of functional kinds. I shall therefore say very little about epistemological naturalism and about conceptual analysis, classically conceived.

3. Realism and anti-realism

To help the reader appreciate the significance of the theory of metaphysical realism, Moore introduces the so-called realist/anti-realist debate, arguing that it should be of interest to legal scholars in general and jurisprudents in particular not only because it is genuinely interesting, but also because it has practical significance. The general idea is that whereas realists maintain that the world, or part of it: 1) exists and 2) has the features it does independently of any language, conceptual scheme or perspective of human beings, anti-realists hold either that the world, or part of it: 1') does *not* exist, or 2') does exist, but is in some way dependent precisely on some language, conceptual scheme or perspective of human beings.[13] There is, of course, a lot to be said about the distinction between realism and anti-realism, including the precise sense in which the distinction is to be drawn. I shall not, however, go into these difficult questions here,[14] but shall be content to accept Moore's account of the distinction.

Moore makes a distinction between: 1) metaphysics in a narrow sense, which includes an ontology, and 2) metaphysics in a broad sense, which includes not only a) an ontology, but also b) a theory of truth, c) a theory of logic, d) a theory about the meaning of sentences, and e) a theory about word meaning;[15] and he defends, in keeping with this, a realist theory of mind, morality, and law in the sense indicated in point 2. This theory includes: a') the ontological theory that there are mind-independent (or observer-independent) mental, moral, and legal properties of various sorts, b') a correspondence theory of truth, c') a theory of logic that includes the principles of bivalence and stability, d') a truth-conditional theory of sentence meaning, and e') a causal theory of word meaning.[16]

Moore then explains that an *anti-realist* rejects the realist position on each of the above-mentioned five counts, and that a *conventionalist* substitutes the idea of a social convention for the idea of a convention-independent reality assumed by the realist. For example, a conventionalist will assert the following about real numbers: 1) that

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[12] M. De Caro, D. Macarthur, *Introduction: The Nature of Naturalism*, in: M. De Caro, D. Macarthur (eds.), *Naturalism*…, p. 6.

[13] M.S. Moore, *The Interpretive Turn in Modern Theory: A Turn for the Worse?*, "Stanford Law Review" 1989/41, p. 872. Moore is, of course, well aware that under realism, the truth or falsity of a claim about Smith's thought processes is not and cannot be independent of Smith's mind. Crudely put, what he means is that the truth or falsity of that claim is independent of other people's minds.

[14] For a general discussion of questions pertaining to the realist/anti-realist debate, see: A.C. Grayling, *An Introduction to Philosophical Logic*, London 1997, chapters 8–9.

[15] M.S. Moore, *The Interpretive Turn*…, pp. 874–875.

[16] M.S. Moore, *The Interpretive Turn*…, pp. 875–876.

they exist, but only as *constructions* within a system called "mathematics".[17] In addition, Moore explains, the conventionalist will assert that: 2) the truth of a mathematical sentence, such as "4 is greater than 2", consists in the existence of mathematical conventions that justify belief in this sentence and warrant its assertion, 3) what logic preserves is the warranted assertability of such sentences, 4) the meaning of such a sentence is to be found in the conditions under which the sentence could be justifiably asserted, and 5) the meaning of a predicate such as "is greater than" is given by mathematical conventions that regulate the correct usage of such phrases.[18]

Finally, it is worth noting, as Moore does note,[19] that a person may be a realist in some areas and a conventionalist, or even a skeptic, in other areas. For example, a common stance is to be a realist about the physical world and a conventionalist or a skeptic about law and morality.

4. Legal realism and anti-realism

Applying these categories to the field of law, Moore begins by distinguishing three stages of *legal realism*.[20] The first-stage legal realist, he explains, is both a scientific and a moral realist, which is to say that he takes a realist line on scientific, mental, and moral entities and properties, such as electrons, protons, forces, intentions, beliefs, justice, and goodness. To be a first-stage legal realist, then, is to apply such a theory of scientific and moral realism to the words and concepts in the laws of the relevant legal order.[21] The second-stage legal realist also recognizes certain distinctively legal entities and properties, which Moore refers to as *functional* kinds. Using the criminal law concept of malice as an example, he explains that the term "malice" – like "lawyer", "knife", "vehicle", and "paperweight" – refers to something, namely, a kind, whose nature is not given by its structure, but by the *function* it fulfills in the larger system in which it occurs, such as the legal order.[22] Finally, Moore identifies a third-stage legal realist, that is, someone who does not confine his or her analysis to one legal order, say, Canadian law, but applies it to law in general. Such a legal realist, he explains, "will say that 'law' names a functional kind and that general jurisprudence, rightly conceived, should study the nature of that kind" [23] and not, say, the *concept* of law. On this view, then, law has a nature that is determined by its function, and it is the task of jurisprudents to inquire into this nature.

The legal *conventionalist*, by contrast, will typically be a conventionalist about moral as well as scientific and common-sense entities and properties. For example, the legal conventionalist may hold that moral claims are true (or false) in light of existing social conventions, and that moral truth does not go beyond such conventions. Similarly, he

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[17] M.S. Moore, *The Interpretive Turn*…, p. 881.

[18] M.S. Moore, *The Interpretive Turn*…, p. 881. Moore does not explain the *skeptical* position, though it is clear that the skeptic will have to deny the existence of the entities and properties that the realists and the conventionalists take to exist, and that the skeptic's theories of truth, logic, and sentence and word meaning will have to be adapted to the skeptical position on ontology.

[19] M.S. Moore, *The Interpretive Turn*…, p. 881.

[20] As I have said (in section 1), Moore's legal realism is something very different from legal realism in the sense of American or Scandinavian legal realism. The American and Scandinavian realists were legal and moral anti-realists and were realists only in the ordinary sense of the word "realism".

[21] M.S. Moore, *The Interpretive Turn*…, p. 882.

[22] M.S. Moore, *The Interpretive Turn*…, p. 885.

[23] M.S. Moore, *The Interpretive Turn*…, p. 887.

or she may argue that claims about scientific or common-sense entities or properties, such as causation, or free will, will be true (or false) in light of existing social, or perhaps scientific, conventions.

Turning, finally, to consider the legal *skeptic*, Moore[24] explains that the skeptic denies both what the realist and what the conventionalist assert on the five points mentioned above.[25] The skeptic thus rejects the view that there are natural, mental, moral or functional legal kinds and finds the conventions invoked by the conventionalist too indeterminate to be of much use.

5. The causal theory of word meaning

Moore embraces, as we have seen, a so-called causal (or direct reference) theory of word meaning. He begins his discussion of the causal theory by dividing theories of meaning into two main types, namely, conventionalist and realist theories, explaining that *conventionalist* theories consider the relation between symbols and things to be essentially arbitrary, a matter of convention: "We could have carved up the world differently, and we could have given the subdivisions different names. That we have not done so is simply a contingent happenstance, not a metaphysical necessity".[26] And he points out that one important feature of conventionalist theories of meaning is that meaning will "run out" in some cases.[27] Herbert L.A. Hart's well-known distinction between the core and the penumbra of meaning illustrates such a type of situation.[28] On Hart's analysis, a word such as "vehicle" may have both a core meaning and a penumbra of uncertainty, provided there is a convention that clearly covers certain cases, but maybe not other cases. Moore adds that, on a conventionalist analysis, if in the future we decide to apply a given word, such as "vehicle", to something that we previously did not apply it to, say, roller skis, we thereby *change* the meaning of the word.[29] As a result (in this case), we will no longer mean precisely what we used to mean when we spoke about "vehicles".

Realist theories of meaning, Moore continues, share none of these features with conventionalist theories of meaning. On a realist analysis, the relation between words and things is not arbitrary, but is determined by the way the world is:

> A realist theory asserts that the meaning of "death," for example, is not fixed by certain conventions. Rather, a realist theory asserts that "death" refers to a natural kind of event that occurs in the world and that it is not arbitrary that we possess some symbol to name the thing. (It may be arbitrary *what* symbol we assign to name this class of events, but it is not arbitrary that we have *some* symbol to name it). Our intentions when we use the word "death" will be to refer to this natural kind of event, whatever its true nature might turn out to be. We will guide our usage, in other words, not by some set of conventions we have agreed upon as to when someone will be said to be dead; rather, we will seek to apply "dead" only to people who are really dead, which we determine by applying the best scientific theory we can muster about what death really is.[30]

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[24] M.S. Moore, *The Interpretive Turn*…, pp. 888–889.
[25] M.S. Moore, *The Interpretive Turn*…, pp. 888–889.
[26] M.S. Moore, *A Natural Law Theory of Interpretation*, "Southern California Law Review" 1985/58, pp. 292–293. Footnote omitted.
[27] M.S. Moore, *A Natural Law*…, p. 293.
[28] H.L.A. Hart, *Positivism and the Separation of Law and Morals*, "Harvard Law Review," 1958/71, pp. 606–608.
[29] M.S. Moore, *A Natural Law*…, p. 292.
[30] M.S. Moore, *A Natural Law*…, p. 294.

As is clear from this quotation, we need to distinguish between two different questions, namely: 1) the question of whether our use of certain words to refer to certain things is a matter of convention, and 2) the question of whether the referents of the words are what they are independently of the languages, conceptual schemes, etc. created by human beings. Clearly, what Moore has in mind here is in point 2. His view, then, is that his causal theory of meaning is a *realist* theory of meaning in that it presupposes that there are kinds (entities, properties, events, etc.) that the relevant words refer to, and that these kinds have a nature that is independent of human contrivance. That is to say, he defends a version of metaphysical realism both in general and in the fields of law and morality.

6. Functional kinds: how to determine their function

Moore maintains, as we have seen, that legal functional kinds have a nature (or an essence) that consists not in their structure, but in the function they fulfil in law (or in a certain legal order). But how does one determine the function of a purported functional kind? The general idea is to think of the *effect*, or effects,[31] of something, say, *X*, as the function of *X*. But, as Moore points out, we cannot reasonably think of the function of *X* as simply the effect, or effects, of *X*, because there may be a number of different effects. Hence we need a way to determine precisely which effect, or effects, are to count for the purpose of determining the function of *X*. However, he says, there is no use trying to determine the function of *X* by reference to the intentions of the designer(s) or the average user(s) of *X*, because there may be no designer(s) or user(s).[32] Using the *activities* of sleep and the heart's beating as examples, Moore maintains instead that the relevant effect, or effects, are those that causally contribute more than does any other effect to the overall *goal* of the *larger system* within which the activity occurs:

> To find an activity's function, we sort through all the consequences of that activity in light of an hypothesis both about there being some larger system in which the activity occurs and about that system having an overall goal. The heart's beating and sleeping are both activities within (or of) the system we call the human body. We think such a system itself has a function, or goal, namely, physical health. Such a system-wide goal is aided by some effects of a heart's beating and by some consequences of sleeping, and not by others. We call the former the function of the heart or of sleep.[33]

On the basis of this general idea, Moore distinguishes four steps that one is to go through in order to determine the function of a (purported) functional kind.[34] Firstly, identify the functional kind. Secondly, identify all the effects of (the instances of) the functional kind. Thirdly, identify the larger system within which the functional kind occurs *and* the goal of that system. Fourthly, identify the effect, or effects, of (the instances of) the functional kind that causally contribute more than does any

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[31] Moore speaks of "consequences", rather than "effects", but I believe that "effect" is a more suitable term when discussing functions and functional kinds.

[32] M.S. Moore, *Law as a Functional Kind*, in: R.P. George (ed.) *Natural Law Theory. Contemporary Essays*, Oxford 1992, pp. 209–210.

[33] M.S. Moore, *Law as*…, p. 210.

[34] M.S. Moore, *Law as*…, p. 212. Moore actually distinguishes *five* steps (M.S. Moore, *Law as*…, pp. 212–217), but I find the four-step analysis more illuminating. Needless to say, I believe my interpretation does not affect the substance of Moore's analysis.

other effect of (the instances of) the functional kind to the goal of the larger system. This effect (or these effects) is (are) the *function* of the functional kind.

To illustrate the method, Moore goes through the four steps in order to show that *law* is a functional kind.[35] The first step, then, is precisely to identify the (purported) functional kind, in this case, law. The second step is to identify all the effects of (the instances of) this functional kind. To do that, Moore begins by identifying some of its many *features*, such as the following: 1) coercive sanctions play an important role when it comes to motivating the citizens to obey the law, 2) law regulates its own creation, and 3) the citizens believe in the authority of law.

He does not explain why he distinguishes a number of features of law instead of just focusing on *law*, but I assume he reasons that law is quite a complex phenomenon, and that therefore one cannot speak meaningfully of the effects of law *simpliciter*. But the identification of different features of law adds, of course, to the difficulties, because the question arises which feature, or features, are the relevant ones. In any case, Moore proceeds to identify the effects of *one* of these features, namely, that the citizens believe in the authority of law (point 3). And, he explains, some of these effects are: 3a) that the citizens avoid thinking for themselves about what to do, 3b) that their time is being freed up for leisure activities, and 3c) that a solution to coordination problems faced by the citizens is facilitated because the perceived authoritativeness of law will make laws salient features of such coordination problems.

The third step is to identify the larger system within which the (purported) functional kind occurs *and* the goal of that larger system, and here Moore follows John Finnis, who proposes that the *goal* of the larger system – which is law – is to attain the common good. Note here that Moore's discussion of the functional kind, law, involves collapsing the distinction between the functional kind, law, and the larger system within which the functional kind is supposed to occur, law again. This might be a problematic move, however. I will return to this question in section 8.

The fourth step, finally, is to find out which of all the effects of (the instances of) law – in this case, all the effects of (the instances of) the feature indicated in point 3 – causally contributes more than does any other effect of the feature mentioned in point 3 to the goal of the larger system. Here Moore reasons that since coordination of human behaviour is one of the effects of feature indicated in point 3, and since such coordination causally contributes more to the goal of the larger system – that is, the goal of attaining the common good – than does any other effect of the feature mentioned in point 3, we may conclude that the *function* of law is to coordinate human behaviour.

We thus see that, on Moore's analysis, the determination of the function of a purported functional kind involves identifying 1) the functional kind, 2) all the effects of (the instances of) the functional kind, 3) the larger system within which the functional kind occurs and the goal of the larger system, and 4) the effect, or effects, of (the instances of) the functional kind that causally contribute more to the goal of the larger system than does any other effect. If the analyst has been able to carry out all four steps, they may conclude that the *function* of the purported functional kind is precisely the effect, or effects, identified in point 4.

Let me conclude this section by emphasizing that although I have been speaking, and will continue to speak, of the function of a functional kind, it is really the *instances* of

[35] M.S. Moore, *Law as*…, pp. 213–217.

functional kinds that have a function. For example, it is not the functional kind, knife, but individual knives, that have the function of cutting, and it is not the functional kind, chair, but individual chairs, that have the function of being something one can sit in.

7. Functional kinds: a naturalist ontology

We have seen that functional kinds play an important role in Moore's second- and third-stage versions of legal realism, and we have seen how to determine the function of a functional kind. One may, however, wonder about the ontology of functional kinds – what is the relation between functional kinds, on the one hand, and the natural, moral, mental, semantic or other types of property on which they depend, on the other hand? This is the question that Moore is concerned with in his 2002 article on legal ontology. As he puts it there, "[t]he question that interests me is in what sense legal things exist: where or what are they, how do they relate to the non-legal facts on which they in some sense depend?".[36]

Moore's formulation of the relational question is perhaps not as clear as it might be, however. For one could argue that one question is whether there are different *senses* of "to exist", so that "to exist" *means* one thing, for instance, when we say that numbers exist and another when we say that apples exist; that another question, given that "to exist" has one sense only, is whether different types of things, such as numbers and apples, have different *modes* of existence; and that yet another question is by virtue of what something exists. Moore is concerned with the last question.

Moore's view, as we shall see, is that functional kinds are identical to indefinitely large disjunctions of natural kinds. Defending this view, Moore begins by explaining very briefly what he has in mind when he speaks of *naturalism*: "On the naturalist picture, mental states, moral qualities, and legal properties are each a kind of physical property, located in space and time and capable of entering into causal relations with other physical things".[37] On such a naturalist analysis, he adds, "there are no mysterious modes of existence, no odd relations between entities in different modes, no *sui generis* and unexplained modes of knowing items in the non-physical realms".[38] This is, of course, ontological naturalism, mentioned above (in section 2), and it is clearly closer to Rosenberg's physicalism than to some more liberal version of naturalism, such as the one defended by Horwich.

Moore proceeds to distinguish two main types of such naturalism, namely reductionist and non-reductionist naturalism. His view is that non-reductionist naturalists hold that moral (mental, semantic, legal, etc.) properties are natural properties that are in some sense *independent* of the non-moral (non-mental, etc.) natural properties on which they depend,[39] and that reductionist naturalists maintain that moral (mental, semantic, legal, etc.) properties are natural properties that can in some sense be *reduced* to non-moral (non-mental, etc.) natural properties.[40] For example, a naturalist reductionist might argue that the moral property of being a right action can be reduced

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[36] M.S. Moore, *Legal Reality: A Naturalist Approach to Legal Ontology*, "Law and Philosophy" 2002/21, p. 632.
[37] M.S. Moore, *Legal Reality*…, pp. 664–665.
[38] M.S. Moore, *Legal Reality*…, p. 665.
[39] This sounds difficult. However, Moore is explicit that on this analysis, "moral properties are in some sense independent of the natural properties on which they depend". M.S. Moore, *Legal Reality*…, p. 665.
[40] M.S. Moore, *Legal Reality*…, p. 665.

to the non-moral, natural property of maximizing happiness, where the latter property would be non-moral in the sense that it could be correctly described in factual, non--moral language. By contrast, a non-reductionist would argue that the moral property in question is in some sense *sui generis*, and that it cannot be reduced to any non-moral, natural property.

Following David Brink, we may distinguish between two versions of naturalist reductionism, namely: 1) the view that moral properties are *identical* to natural properties (the "is" of identity), and 2) the view that moral properties are *constituted* by (composed of, realized by), but not identical to, natural properties (the "is" of constitution).[41] Brink explains that if a moral property, F, is constituted by some natural properties, $G_1 \ldots G_n$, although F can be, or could have been, constituted by some other non-natural properties, then $G_1 \ldots G_n$ actually, but not necessarily, constitute F.[42] So, on the constitution analysis, moral properties are not necessarily natural properties, and this in turn means that they are not, and cannot be, *identical* to natural properties.[43] As far as I can tell, Moore has in mind the "is" of identity and thus asserts a necessary relation between moral and natural properties.[44]

Next, Moore makes a distinction between analytically and metaphysically reductionist naturalism. The main difference between these two types, he explains, is that whereas analytical reductionists (analytically reductionist naturalists) aim to carry out the reduction by analyzing the relevant *concept* (or word),[45] say, the concept of a legal right, or the concept of an intention, in terms of natural properties,[46] metaphysical reductionists (metaphysically reductionist naturalists) aim to identify, say, legal (or mental) *properties* with non-legal (or non-mental) properties without thereby providing the content of the relevant concept.[47] So whereas analytical reductionists focus their analysis on concepts (or words) and look for a relation of meaning equivalence, or synonymy, between the *analysans* and the *analysandum*, metaphysical reductionists focus their analysis instead on the properties that fall under the relevant concept and assert an identity relation, or a relation of constitution, between the different types of *properties*, for instance, between mental and physical properties.

Moore rejects analytically reductionist naturalism, however, on the grounds that it founders on the so-called open question argument,[48] according to which it is always an open (and thus a reasonable) question whether a given combination of natural properties can account for the import of the relevant *concept* (or the meaning of the relevant *word*), etc. As Moore sees it, the correct conclusion to draw from the open question argument is that the openness identified inheres in the properties (kinds) referred to, not in the relevant concept (or word).[49]

The type of reductionist naturalism that Moore finds appealing is thus *metaphysically reductionist* naturalism. And he explains the gist of this type of naturalism with the help of the example of *heat*, pointing out that although scientists had discovered quite some

[41] D. Brink, *Moral Realism*…, pp. 156–163.
[42] D. Brink, *Moral Realism*…, pp. 157–158.
[43] D. Brink, *Moral Realism*…, pp. 157–158.
[44] See: M.S. Moore, *Legal Reality*… pp. 671–672.
[45] M.S. Moore, *Legal Reality*…, pp. 665–666.
[46] See e.g.: F. Jackson, *From Metaphysics to Ethics. A Defence of Conceptual Analysis*, Oxford 1998.
[47] M.S. Moore, *Legal Reality*…, p. 669.
[48] See: G.E. Moore, *Principia Ethica*, Cambridge 1993, pp. 67–68; G. Harman, *The Nature of Morality. An Introduction to Ethics*, Oxford 1977, pp. 17–20.
[49] M.S. Moore, *Legal Reality*…, p. 668.

time ago that the heat of a gas is identical to the *kinetic energy* of the mass and velocity of molecules, the *concept* of kinetic energy was by no means part of the *concept* of heat – if it had been, we would have had to accept that the claim "heat is kinetic energy" was no more informative than the claim "heat is heat" and so we would have been unable to account for informative identity statements.[50]

Metaphysically reductionist naturalism is not without its problems, however. To begin with, as Moore points out,[51] there is the *alternative realizability problem*,[52] that is, the problem of finding a reduction base with a unified nature, that is, a natural property, or a combination of natural properties, such that it can account for all and only the instances of the relevant higher-order property, be it legal, moral, or mental. He proposes that we respond as metaphysical reductionists to the alternative realizability problem by making the base properties more complex, by making them *disjunctions of an indefinitely large number of natural properties*: "When each disjunct of some complex base property is itself sufficient for the existence of the supervening property, then the supervening property can meaningfully be said to *depend* on, *follow* from, be *determined* by, the base property".[53] The idea here is that we are to identify the truth-makers of propositions of law with an indefinitely large disjunction of natural properties, such as the plain meaning of the relevant statutory provision(s), or the coherence of a set of legal norms including the provision in question,[54] or the intent of the enacting legislature as regards the application of the provision to the case at hand, or the purpose of the provision (or the statute of which the provision is a part) embraced by the enacting legislature, or perhaps the expected happiness or preference-satisfaction on the part of the citizens in case of a decision one way or the other, etc. On Moore's analysis, then, an indefinitely large disjunction of such natural properties is what makes a proposition of law true.

Moore notes, however, that one may wonder, what, if anything, *unifies* a given disjunction of base properties in such a way that it is natural to think of the disjuncts in question as belonging together, say, as one type of mental state, or one type of moral or legal property or relation. Moore's way of solving this problem, which he calls the "problem of finding an independent specification of supervening properties",[55] is to invoke the above-mentioned category of *functional* kinds and argue that what unifies a given disjunction of natural properties is precisely that it – the disjunction of those properties – constitutes a functional kind.[56] As the reader will remember (from section 6), a legal functional kind is a kind whose nature consists not in its structure, but in the function it fulfils in law (or, on second-stage legal realism, in a particular legal order). The idea, then, is that certain disjuncts – a, b, c, d, e, f, etc. – belong to the relevant disjunction precisely because each disjunct is sufficient for the functional kind to fulfill its function.

Such functional kinds can be quite complex, Moore notes, and to illustrate such complexity he considers the functional kind that makes a singular proposition of law in

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[50] M.S. Moore, *Legal Reality*…, p. 669.
[51] M.S. Moore, *Legal Reality*…, pp. 671–672.
[52] M.S. Moore, *Legal Reality*…, p. 679.
[53] M.S. Moore, *Legal Reality*…, p. 679. Note that Moore appears to have a rather strong version of supervenience in mind, according to which supervenience is not only a matter of covariation between the supervening property and the base property, but of *dependence* of the former property on the latter. On supervenience, see: J. Kim, *Philosophy of Mind*, Boulder–Colorado 1998, pp. 9–13.
[54] I assume here, for the sake of argument, that the property of coherence is a natural property.
[55] M.S. Moore, *Legal Reality*…, p. 683.
[56] M.S. Moore, *Legal Reality*…, pp. 684–685.

a case called *Kirby*[57] – namely, "Sheriff Kirby was not guilty of obstructing or retarding the passage of the U.S. mail" – a true proposition of American law. In the case of *Kirby*, a state sheriff (named Kirby) had stopped a riverboat carrying a federal mail carrier and his mail and had taken both the mail carrier and the mail off the boat, the reason being that the mail carrier was wanted for murder. As a result, Kirby was charged with the federal crime of "knowingly and willfully obstruct[ing] or retard[ing] the passage of the mail of the United States"[58] pursuant to the act of Congress of 3 March 1825.[59] The Supreme Court of the United States found that Kirby was *not* guilty of the crime, however, reasoning that although he had indeed obstructed or retarded the passage of the U.S. mail, he had not *legally* obstructed or retarded its passage for, the Court said, the *reason* of the law should prevail over its letter.[60] On Moore's analysis, then, the nature (or function) of this functional kind – that of obstructing or retarding the passage of the U.S. mail – is given "by its service to [a] complex hierarchy of functions" in the following way:

> Part of what was relevant to the truth of the singular proposition of law in *Kirby* was the fact that the function of the federal statute was to promote free passage of mail in a federal system. But such statutory function is only part of what was relevant to that legal truth. Also relevant was the larger functions of the ordinary meaning for words that are used in statutes, which are to promote both democratic rule by the majority and notice of the law to citizens. Also relevant was the even larger function of all law which is to serve justice, including the retributive justice achieved when murderers are punished and the innocent are not. Thus, when I classify as a functional kind the act-type referred to by the phrase, "obstruct or retard the passage of the U.S. mail" (…). I do so because the nature of the kind is given by its service to this complex hierarchy of functions – the functions of this statute, of all statutes, of all law.[61]

Having thus illustrated the staggering complexity of a functional analysis of a legal obstructing, Moore goes on to say a few words about functional specifications in general. A functional specification, he explains, is a specification of the function of the thing to be explained (intention, pain, moral duty, legal obstructing, etc.) in terms of *causal laws* that connect the thing to other states, entities, or properties *and* human behaviour. The advantage of functional specifications, he explains, is that they help us avoid the unattractive option of accounting for the sought-after unity of the disjunction of base properties

> either [in terms of] some irreducibly mental, moral, or legal property – in which event we are back at dualism – or [in terms of] some patterns of response to the base properties that is typically human – in which event we are back at skepticism (including perhaps the partial skepticism of secondary properties).[62]

As he explains,

> [a] functional specification is intended to be free of any non-physicalist ontological commitments. No "functional reality" is wanted or needed. Rather, all that is needed are the physical

[57] *U.S. Reports: United States v. Kirby, 74 U.S. 7 Wall. 482 (1869)*, Supreme Court of the United States, https://www.loc.gov/item/usrep074482/, accessed on: 2 March 2021.
[58] *U.S. Reports*…, p. 483.
[59] The ninth section of this act reads as follows: "if any person shall knowingly and willfully obstruct or retard the passage of the mail, or of any driver or carrier, or of any horse or carriage carrying the same, he shall, upon conviction, for every such offense, pay a fine not exceeding one hundred dollars".
[60] *U.S. Reports*…, pp. 486–487.
[61] M.S. Moore, *Legal Reality*…, p. 685. Footnotes omitted.
[62] M.S. Moore, *Legal Reality*…, p. 683.

states making up the base properties, the behavior to be explained, and causal roles for the set of physical states that intentions are.[63]

8. First difficulty: determining the function of a functional kind

Although I am impressed by Moore's wide-ranging analysis and argumentation, I remain unconvinced. As I have said, I am inclined to agree with Moore that there is no escaping metaphysics in legal thinking, that such metaphysics should be naturalistic, and that metaphysically reductionist naturalism is to be preferred to analytically reductionist naturalism. I am, however, going to argue that Moore's method for determining the function of a (purported) functional kind is too indeterminate to be able to determine the function in an unequivocal way, and that this suggests, though it does not entail, that there is no fact of the matter as regards the question of what the function of a (purported) functional kind is and, as a result, about what functional kind it is, or even whether it is a functional kind at all.

Moore argues, as we have seen, that one is to determine the function of a functional kind by identifying: 1) the functional kind, 2) all the effects of (the instances of) that functional kind, 3) the larger system within which the functional kind occurs and the goal of that system, and 4) that effect, or those effects, of (the instances of) the functional kind that causally contribute more than does any other effect to the goal of the larger system. Then, the function of the functional kind is the effect, or effects, identified in point 4. In addition, having carried out steps 1–4, the analyst may in some cases have to perform yet another task, namely, that of constructing an overall function of a given functional kind out of the functions of more specific functional kinds. For example, as we saw above (in section 7), Moore holds that the function of the functional kind in *Kirby* – that is, the functional kind he calls a legal obstructing – is a function (in the mathematical sense) of a complex hierarchy of more specific functions. On Moore's analysis, this means, in the case of *Kirby*, that the function of a legal obstructing depends not only on the above-mentioned four-step method, but also on 1) the specific function of the relevant statute, which was to promote the free passage of mail, 2) the general function of the ordinary meaning of words in statutes, which is to promote democratic rule and give notice of the law to the citizens, and 3) the general function of law, which is to serve justice.[64] And, as one might expect, the functions mentioned in points 1–3 depend in turn on the four-step method.

As I said, I maintain that Moore's method, although appealing, is too indeterminate to determine in an unequivocal way the function of a functional kind. But before I discuss the indeterminacy of Moore's method in more detail, I would like to point to a problematic feature of the example Moore considers (in section 6), that is, *law*, which I mentioned briefly earlier (also in section 6), namely, that the intuitively important distinction between the functional kind and the larger system within which it is supposed to occur breaks down. For, as I said, the general idea of Moore's method is to determine the function of any given functional kind by locating that functional kind *within* a larger system that has an overall goal and identifying the effect, or effects, of (the instances of) that functional kind that causally contribute more than does any other

[63] M.S. Moore, *Legal Reality*…, p. 686.
[64] M.S. Moore, *Legal Reality*…, p. 685.

effect to the goal of the larger system. In Moore's example, however, as I also said, the functional kind and the larger system are *identical*, so that the function of *law* depends immediately on the goal of *law*, not the goal of some larger system, such as, say, a society or a culture, within which law occurs.

The problem is that the gist of Moore's method is to explain what a functional kind is by locating the functional kind within a larger system that has a goal and to think of the functional kind as something that contributes to the goal of the larger system. On this analysis, one gets an intuitively plausible and, indeed, appealing view of what a functional kind is. If, however, one collapses the distinction between the functional kind and the larger system, one undermines this appealing view of what a functional kind is. Surely the relevant effect of a functional kind, *X*, must contribute to the goal of something other than *X* itself, namely, to something that one understands reasonably well and that one can relate *X* to in one's effort to understand *X*. One may wonder why Moore does not comment on this problematic feature of his analysis.

In any case, I believe the indeterminacy in Moore's method occurs primarily in steps 2 and 3. While it might occasionally be difficult to be clear about precisely how to conceive of the relevant functional kind (step 1), this will usually be a minor problem. To identify all the effects of (the instances of) the functional kind (step 2), on the other hand, may be quite difficult. To begin with, as Moore's discussion of law illustrates, the analyst might in some cases have to determine what *feature* of the functional kind one is to focus on when trying to identify its effects, instead of simply focusing on the effects of (the instances of) the functional kind itself. Thus, as we saw before (in section 5), Moore identifies a number of features of law and proceeds to focus on *one* of them, namely, that the citizens believe in the authority of law. He does not, however, explain why he chooses to focus on that particular feature, even though it is clear that different features of law may have very different effects, and that therefore the choice of one feature over another is likely to result in the identification of one effect/function rather than another of the relevant functional kind.[65]

Having made up his mind about what feature is relevant, the analyst faces the problem of identifying all the effects of (the instances of) that feature of the functional kind. But this may turn out to be quite difficult. Here I have in mind the *problem of individuating effects*, that is, of determining what is to count as precisely one effect, as distinguished from two effects or something less than one effect (an "effect fragment"). The problem of individuating *legal norms*, which has been debated by Joseph Raz and Ronald Dworkin, among others,[66] may be of interest in this context. For just as it is important to those who debate the existence and structure of so-called competence norms (power-conferring rules, in Hart's terminology) to be clear about how much normative material makes up precisely one legal norm (for example, is a competence norm a complete and independent norm addressed to the citizens, or only a fragment of a duty-imposing norm addressed to legal officials?), it will be important to those who debate the function of a given functional kind to be clear about what is to count as precisely one effect. If they are unclear about this, they will be unclear about what the effects of (the instances of) the functional kind are and, therefore, about what function

[65] Of course, we need to keep in mind here that Moore is just *illustrating* his method for determining the function of a functional kind, which means that he is not concerned to justify his choice of a feature of law to focus on or, for that matter, his view about the goal of law.

[66] On this, see: T. Spaak, *The Concept of Legal Competence. An Essay in Conceptual Analysis*, Aldershot 1994, pp. 161–169.

the functional kind fulfills and, as a result, about what functional kind it is, or even whether it is a functional kind at all.

One important part of the general problem of individuating effects is the problem of choosing an appropriate level of abstraction on which to describe the effects, and Moore's method does not appear to include guidelines for doing this. The problem can be illustrated by considering Julius Stone's critique of Arthur Goodhart's method for determining the *ratio decidendi* of a case.[67] According to the Goodhart method,[68] the judge is to focus on the material (relevant) facts of the precedent case as seen by the judge(s) and to think of the *ratio* of that case as a legal norm (a "principle") whose antecedent lists the material facts as seen by the judge and whose consequent describes the judge's conclusion in the case. For example, if the material facts are *A*, *B*, and *C*, and the conclusion is *X*, then the *ratio* will be "if *A*, *B*, and *C*, then *X*". Stone objects, however, that the method is incomplete in a way that undermines its capacity to determine in an unequivocal way the *ratio decidendi* of a case. More specifically, he argues that according to the method, the *level of generality* on which one describes the material facts of the precedent case will determine the scope of the *ratio*, that the method does not include guidelines for determining the appropriate level of generality, which means that the method is indeterminate as regards the scope of the *ratio*.[69] I believe the same objection applies, *mutatis mutandis*, to Moore's method for determining the function of a functional kind.

Step 3 of Moore's method is also problematic. While it will usually not be too difficult to identify the larger system, we have just seen that a problem arises in the case of law itself. If the larger system is something different from law, then we need to know what it is and what its goal is. For example, does society have a goal? Does culture have a goal? If, as in Moore's example, the larger system is simply law itself, then the question arises about what the goal of law is. As is well known, the question of the function, or purpose, or, we might say, the goal, of law has been debated throughout the ages. Some have argued that it is to guarantee order and stability;[70] others have held that it is to make possible peaceful co-existence of human beings;[71] some have argued that it is to protect individual liberty;[72] others have held that the idea of law is (formal) justice;[73] some have held that the purpose of law is to subject human behaviour to the governance of rules;[74] and yet others have claimed that it is to justify the exercise of state coercion.[75] As is well known, however, Hart believes it is futile to assume that law has a purpose or a function beyond that of guiding human behaviour.[76] And if, as I suspect, Hart is right, we must conclude that Moore's method

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[67] J. Stone, *The Ratio of the Ratio Decidendi*, "The Modern Law Review" 1958/22, pp. 597–620.

[68] A.L. Goodhart, *Determining the Ratio Decidendi of a Case*, "Yale Law Journal" 1931/15, p. 169.

[69] J. Stone, *The Ratio*…, pp. 605–606.

[70] T. Hobbes, *Leviathan*, Cambridge 1991.

[71] S. Pufendorf, *Om de mänskliga och medborgerliga plikterna enligt naturrätten. Med en introduktion av Kjell Å. Modéer* [Eng. *On Human and Civil Rights According to the Law of Nature. With an Introduction by Kjell Å. Modéer*], Stockholm 2001, p. 64.

[72] F.A. Hayek, *The Road to Serfdom*, London 1944, p. 54.

[73] G. Radbruch, *Legal Philosophy*, in: E.W. Patterson (ed.), *The Legal Philosophies of Lask, Radbruch, and Dabin*, Cambridge (Mass.) 1950, pp. 43–224.

[74] L.L. Fuller, *Reply to Critics*, in: L.L. Fuller, *The Morality of Law. Revised Edition*, New Haven–London 1969, pp. 187–242. In attributing this view to Fuller, I follow N.E. Simmonds, *Central Issues in Jurisprudence*, London 2002, pp. 233–234.

[75] R. Dworkin, *Law's*…, p. 93.

[76] H.L.A. Hart, *The Concept of Law*, Oxford 1997, pp. 248–249.

is inherently indeterminate, depending as it does on the existence of a goal of law, or a given legal order, that may simply not be there.[77]

Note here that one may well wonder, given the distinction between the goal and the function of law, whether the above-mentioned writers had in mind the one or the other, or whether they did not make the distinction in the first place. If they were concerned with the *function* of law, then they simply would have disagreed with Moore's analysis; if instead they were concerned with the *goal* of law, as I assume somewhat cavalierly in the paragraph above, then their disagreement suggests that there simply is no goal that Moore could make use of in his attempt to determine the function of law.

In any case, step 4 does not seem to be as problematic as steps 2 and 3. As we have seen, step 4 involves identifying that effect, or those effects, of (the instances of) the functional kind that causally contribute more than does any other effect to the goal of the larger system. And if we allow ourselves to assume that the analyst has successfully carried out steps 1–3, the task in step 4 is simply one of selecting the best *means* (the effect(s)) to the *end* (the goal of law or a given legal order) and in most cases should not be too problematic.

There is also another difficulty that deserves mention in this context. Suppose the analyst has managed to identify that effect, or those effects, that causally contribute more than does any other effect to the goal of the larger system. The question now arises, does this effect, which equals the function of the functional kind, constitute a sufficient or a necessary condition for the goal of the larger system, or both a sufficient and necessary condition, or does it perhaps constitute some sort of contributory condition? Let us consider the example of *legal competence* (or legal power), and let us assume that it is a legal functional kind. What is legal competence? To have legal competence is to have the ability (or possibility) of changing legal positions by performing a so-called declaration of intention, that is, an act whose legal effect depends on the (actual or attributed) intention on the part of the person performing it (the competence-holder) to bring about those very effects by performing this very type of act. For example, a private individual typically has the competence to draw up a will and the competence to enter into a contract, the legislature has the competence to enact laws, and courts have the competence to try certain types of cases.[78] On this analysis, the content and scope of this legal functional kind, legal competence, are determined by its function.

I can think of at least two ways of conceiving legal competence as a legal functional kind. We might say that: 1) the function of legal competence is to cause judges, attorneys, private individuals, and others to adapt the structure and content of the legal order to human needs, say, by creating laws, deciding court cases, drawing up wills, entering into contracts, etc. or that 2) the function is to cause judges, attorneys, legal scholars, and others to discuss questions of legal validity or invalidity in an adequate way. On either conception of legal competence, the question arises whether the relevant function is a sufficient or a necessary condition for the goal of the larger system, or both

[77] Moore is, of course, well aware of the existence of competing claims about the goal (or purpose or function) of law (on this, see: M.S. Moore, *Law as*…, pp. 215–216) and chooses to follow Finnis for purposes of illustration. So what I said above in footnote 65 applies here, too.

[78] On the concept of legal competence, see: T. Spaak, *The Concept*…; T. Spaak, *Explicating the Concept of Legal Competence*, in: J.C. Hage, D. von der Pfordten (eds.), *Concepts in Law*, Dordrecht 2009, pp. 74–78. Note that English-speaking writers prefer to speak not of legal "competence", but of legal "power". Note also that this is my example, not Moore's. As far as I know, Moore never discusses legal competence (or legal power), at least not conceived as a legal functional kind.

a necessary and sufficient condition, or perhaps some sort of contributory condition. I find it natural to think of the function in these cases, and in many other cases of legal functional kinds, as a necessary, but not sufficient, condition for the goal of the larger system, though in some cases the function may actually be a sufficient condition.

On the basis of the foregoing, I conclude that Moore's method for determining the function of a (purported) functional kind is so indeterminate that the analyst will in many cases not be able to determine in an unequivocal way the function of the relevant (purported) functional kind; that this suggests, though it does not entail, that there is no fact of the matter as regards the question of what the function of a (purported) functional kind is, and, as a result, about what functional kind it is, or even whether it is a functional kind at all; and that there seems to be no way to remedy this troublesome indeterminacy.

9. Second difficulty: identifying the natural properties

I have just argued that Moore's method is so indeterminate that the analyst will in many cases not be able to determine in an unequivocal way the function of the relevant (purported) functional kind. I shall, however, assume, in what follows (sections 9–11), for the sake of argument, that we can determine the function of pretty much any given functional kind using Moore's method.

Moore maintains, as we have seen, that a functional kind can be reduced to an indefinitely large disjunction of natural properties, and that therefore the truth of a proposition of law concerning a legal functional kind will depend on such a disjunction of natural properties, say, the plain meaning of the relevant statute, or the intent of the legislature as regards the application of the statute to the case at hand, or the purpose of the statute embraced by the enacting legislature, etc. What Moore says about the truth of propositions of law seems reasonable to me. But, one wonders, how exactly is the analyst to *identify* the natural properties that make up a given functional kind? The general idea, of course, is to search for precisely those natural properties that, conceived as disjuncts in the disjunction, are individually sufficient to bring about the effect that constitutes the function of the relevant functional kind. But, as we shall see, it turns out to be very difficult to identify the properties in question. What is needed, and what Moore does not offer, are some examples of legal functional kinds that can be reduced to indefinitely large disjunctions of natural properties together with a specification of at least some of those properties.

Let us consider a couple of examples in order to see just how difficult it is to identify the relevant properties. First, let us consider *legal competence* (legal power) again, and let us assume again that it is a legal functional kind. On the first of the analyses above, as I have said, the function of legal competence is to adapt the structure and content of the law to human needs. Assuming that this is so, we ask: What are the properties that are part of the indefinitely large disjunction of natural properties to which, on Moore's analysis, this legal functional kind can be reduced?

Note first that if we are concerned with legal competence on the level of third--stage legal realism, there must be *instances* of this legal functional kind on the level of second-stage legal realism, that is, there must be judges, attorneys, private individuals, and others adapting the structure and content of the law to human needs in the various national legal orders, in EU law, in international law, etc. The precise

question the analyst needs to ask, then, is this: What natural properties are at hand in the various legal orders that, conceived as disjuncts of an indefinitely large disjunction, are individually sufficient to bring about the effect that constitutes the function of legal competence in those very legal orders, that is, that judges, attorneys, private individuals, and others adapt the structure and content of the law to human needs? I find this question very difficult to answer, however. I simply cannot think of any such properties on the level of legal norms and human behaviour, and I therefore suspect that we should instead look for the relevant properties on a lower ontological level, such as the level of the properties that occur in the types of physical laws contemplated by Donald Davidson in the example of the hurricane and the catastrophe (discussed below in section 11). I cannot, however, think of any examples of such micro-level properties either. Perhaps I am lacking in imagination, or perhaps it is very difficult to think of such properties.

Let us now consider another example, namely, *textual interpretation*, and let us assume that this is also a functional kind.[79] To interpret a statute textually is to treat the literal meaning of the statutory provision as decisive: the judge is to read the relevant provision carefully, give the words their normal, or, if necessary, a more technical meaning, and decide the case accordingly. Let us focus again on third-stage legal realism, and let us assume that the function of textual interpretation is to make the law *predictable*, and that the content and scope of the functional kind, textual interpretation, is determined by this function. Thus, on this analysis, the effect of judges, attorneys, and others interpreting statutes and other legal documents along textual lines, that causally contributes more to the goal of law than does any other effect of such persons interpreting statutes and other legal documents along textual lines is, roughly, this: to cause judges, attorneys, and others to successfully predict, on the basis of the law, the outcome of court cases and cases handled by other law-applying authorities.

What about the ontology of textual interpretation, thus conceived? What natural properties make up the indefinitely large disjunction of natural properties to which, on Moore's analysis, textual interpretation can be reduced? As in the case of legal competence, the way to approach this question is to focus on the instances of the relevant legal functional kind in the various national legal orders, in EU law, in international law, etc. Here are a few suggestions. Such properties might be the property of being a norm, or the property of being accepted and used by judges and other law-appliers, or the property of being stated in plain language, or the property of being based on a linguistic convention in the relevant community. The suggested properties are admittedly banal, but they are all I can think of. I conclude that also in this case we need to look for the relevant natural properties on the ontological micro-level. But this task is no easier here than in the case of legal competence.

I conclude that Moore's claim that legal functional kinds can be reduced to indefinitely large disjunctions of natural properties is too abstract and has too little content to be really interesting. I do not consider this difficulty to be fatal to Moore's claim that legal functional kinds can be reduced to indefinitely large disjunctions of natural properties, but I do believe that the difficulty of producing even a single disjunct in the relevant disjunction of natural properties is a clear sign that Moore's reductive claim is in need of further elaboration and some exemplification.

[79] This example is also mine, not Moore's.

10. Third difficulty: the logical connection argument

As we have seen (in section 7), Moore maintains that the function of a functional kind, *X*, is to be specified in terms of *causal laws* that connect *X* to other states, entities or properties and to human behaviour, and that a very important advantage of so specifying it is that one avoids invoking non-physicalist ontological properties. There is, however, a general objection to functionalist (and teleological or reasons) explanations, namely, that they appear to violate what seems to be an obviously sound requirement on causal explanations, namely, that cause and effect be logically (or conceptually) distinct.[80] For if one is to say with any plausibility that *A* caused *B*, then *A* and *B* must be logically (or conceptually) distinct – if they are not, the claim about causation becomes *analytical* and thus vacuous. But, the objection goes, if, in keeping with the very idea of a functional explanation, one defines the cause, *A*, that is, the functional kind, in terms of the effect, *B*, in our case, the relevant human behaviour, that follows from the cause by virtue of a causal law, one is really saying, although implicitly, that *A* and *B* are *not* logically distinct – for if *A* had not caused *B*, *A* would not have been *A* – and so one is not really saying anything when claiming that *A* caused *B*.

Let us consider again the example of *legal competence*. A believer in the logical connection argument might object, that if the *function* of legal competence is to cause judges, attorneys, private individuals, and others to adapt the structure and content of the law to human needs, one cannot reasonably also maintain that the functional kind, legal competence, *causes* judges, attorneys, private individuals, and others to adapt the structure and content of the law to human needs. For, given that legal competence, conceived as a legal functional kind, is *defined* precisely in terms of the effect in question, such a claim would be analytical and thus vacuous.

Donald Davidson rejects the logical connection argument, however, arguing that describing an action or an event, say, the beating of the heart, in terms of its effect, the pumping of blood, does *not* exclude causal explanation.[81] For, he points out, it is always possible to *re-describe* the action (or event), *A*, that caused the action (or event), *B*, in terms that make no mention of *B*, even though *A* is normally understood precisely in terms of its function, that is, to cause *B*, so that there will always be available a description of *A* under which *A* is logically (or conceptually) distinct from *B*.[82] For example, he says, we may rightly say that a person flipped the light switch and in doing so caused the light to go on, even though it is natural to say that the function of flipping the switch is precisely to cause the light to go on.[83] While such a claim does appear to be analytical, it does not follow that the flipping of the switch does not cause the light to go on. The reason, again, is that there is available *another* description of the two events in light of which the claim that *A* caused *B* is *not* analytical. And, Davidson adds, there is in any case something very odd in the idea that causal relations are empirical, not logical:

> What can this mean? Surely not that every true causal statement is empirical. For suppose "*A* caused *B*" is true. Then the cause of *B* = *A*; so substituting, we have "The cause of *B* caused

[80] See e.g.: G.H. von Wright, *Explanation and Understanding*, London 1970, pp. 93–96; J. Otten, *Reviving the Logical Connection Argument*, "Canadian Journal of Philosophy" 1977/7, pp. 725–743.

[81] D. Davidson, *Actions, Reasons, and Causes*, in: D. Davidson (ed.), *Essays on Actions and Events*, Oxford 1980, pp. 14–15.

[82] D. Davidson, *Actions*…, p. 14.

[83] D. Davidson, *Actions*…, p. 14–15.

B", which is analytic. The truth of a causal statement depends on *what* events are described; its status as analytic or synthetic depends on *how* the events are described.[84]

If Davidson is right, as I believe he is, one could avoid the objection under consideration by re-describing the functional kind in a way that does not mention its function. But how could one describe a functional kind without (at least implicitly) invoking its function? Well, in the case of a legal functional kind, one might first try to provide a *non-legal* description. I believe, however, that it would be very difficult to produce a non-legal description of a legal functional kind and that such a description would in any case be inadequate, since it could only be contingently related to the relevant functional kind. For the truth about what a legal functional kind is will necessarily be a *legal* matter; it is the law that determines what, say, legal competence is and who has it.

We therefore have reason to try to provide a *legal* description of legal competence. As we have already seen, one might say that to have legal competence is to have a specific legal ability to change legal positions by performing a declaration of intention. If, however, the relevant effect of legal competence, that is, its function, is that the structure and content of the law is adapted to human needs, the proffered description of legal competence comes close to being analytical. For, on this analysis, there does seem to be a logical (or conceptual) connection between the cause, legal competence, and the effect, that the law is adapted to human needs. The reason, of course, is that *by* changing legal positions in this way, the agent is necessarily adapting the law to human needs. But, one wonders, is this really a conceptual truth? I am not sure, but I am inclined to think so. For in order to conceive of a situation in which a person is changing a legal position in this way without also adapting the law to human needs, one would have to imagine the agent: 1) as being sufficiently rational for his or her act to qualify as an act changing a legal position *and* 2) as being insufficiently rational for the act to qualify as an act by which the agent is adapting the law to human needs; and this seems rather difficult.

I conclude that the logical connection argument is not fatal to Moore's analysis, because I believe that in some cases it will be possible to re-describe the legal functional kind in a way that makes no mention of its effect, that is, the human behaviour which it is its function to cause, so that in those cases there will be available a description of the functional kind under which it is logically distinct from its effect. I do believe, however, that the logical connection argument does pose a considerable problem for Moore's analysis, because given how difficult it will be in most cases to find such an alternative description of the legal functional kind, it is hard to see how legal functional kinds can be part of the explanation of human behaviour in situations in which we will *not* find such an alternative description of the legal functional kind.

11. Fourth difficulty: multiple realizability

As Moore observes, functionalism might seem to lead straight to skepticism or eliminativism about functional kinds. For if we identify functional kinds with a disjunction of physical properties, and if – in spite of the logical connection argument – functional kinds play a certain causal role, the disjunction of physical properties plays this causal

[84] D. Davidson, *Actions*…, p. 14.

role, too.[85] But if this is so, what reason do we have to explain human behaviour in terms of functional kinds instead of directly in terms of the relevant, and ontologically more fundamental, disjunction of physical properties? Why not simply eliminate functional kinds from our best theory of human behaviour?

Using the example of intention, which he considers to be a functional kind, Moore answers that we should refer to the intention, and not to the disjunction of physical properties that make up the intention, because the intention belongs to the ontological level of *types*, whereas the relevant physical properties belong to the level of *tokens*, and because it is a type, not a token, that can explain human behaviour:

> Statements of causal relations are usually thought to be extensional but causal explanations are not. Thus, an intention to go downtown today may causally explain my downtown-going behaviour even though the physical state that the intention on this occasion is, does not. The intention explains because of the systematic regularities that intentions as a type are. Although a singular causal relation exists between the physical state my intention-token is, and my act-token, no causal relation exists in general between physical states of this type and acts of this type. Causal generalizations making causal explanations, in other words, exists only at the general level of types, and "intention" is our word for that causally explaining type.[86]

Moore explains that the idea behind this model of explanation is that one commits oneself to the existence of something, *X*, if the existence of *X* is part of (necessary to) the best explanation of the existence of some other thing, *Y*, that exists in an unproblematic way – if *Y* exists, as it clearly does, then *X* must exist, too, because *X* is part of what best explains the existence of *Y*.[87] Applied to the case of intention above, this means that Moore commits himself to the existence of intentions because he believes that human behaviour – such as, for example, his "downtown-going" behaviour – obviously exists and that intentions are part of the best explanation of human behaviour.

Although Moore is not explicit about this, I take it he means that causal explanation requires *laws*, and that laws require *types* – if we only had tokens, we would have no laws and thus no causal explanations. Moore may be right that causal explanation requires laws, and that laws require types, but I believe he is looking in the wrong place for the relevant types. In my view, such types can be found instead on the level of the indefinitely large disjunction of natural properties, and only there, and this means that the right types of natural properties can, and that functional kinds cannot, explain human behaviour. Moore's mistake, as I see it, is to assume that causal statements about human behaviour – say, that my intention to go downtown today caused me to go downtown today – refer to properties, such as the property of being a functional kind, that occur in the law that explains the behaviour. But, as Donald Davidson points out, this is not so, because the laws that explain actions and events that we are interested in cannot be formulated in terms of the everyday concepts we use to discuss such actions and events:

> Suppose a hurricane, which is reported on page 5 of Tuesday's *Times*, caused a catastrophe, which is reported on page 13 of Wednesday's *Tribune*. Then the event reported on page 5 of Tuesday's *Times* caused the event reported on page 13 of Wednesday's *Tribune*. Should

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[85] M.S. Moore, *Legal Reality*…, pp. 686–687. Generally speaking, if $A = B$, and if A has a certain property, p, then B has p. This rather obvious principle is known as "Leibniz's Law" and has been discussed by, among others, P. Suppes, *Introduction to Logic*, Mineola–New York 1957, p. 103; and E.J. Lowe, *A Survey of Metaphysics*, Oxford 2002, p. 23.

[86] M.S. Moore, *Legal Reality*…, p. 687.

[87] M.S. Moore, *Legal Reality*…, p. 687.

> we look for a law relating events of these *kinds*? It is only slightly less ridiculous to look for a law relating hurricanes and catastrophes. The laws needed to predict the catastrophe with precision would, of course, have no use for concepts like hurricane and catastrophe. The trouble with predicting the weather is that the description under which the events interest us – "a cool, cloudy day with rain in the afternoon" – have only remote connections with the concepts employed by the more precise known laws.[88]

Jerry Fodor makes essentially the same point as Davidson does when he (Fodor) considers and rejects the view that the laws of the special sciences, such as economics or psychology, can be reduced to laws of a more fundamental science, such as physics.[89] Considering the example of Gresham's law, which, he tells us, says something about what will happen in monetary exchanges under certain conditions, Fodor points out that monetary exchanges come in very different shapes and forms and thus have very little in common on the level of physical properties, and that this means that there will be no law of physics (and no bridge law that connects a law of physics with a law of economics) that covers precisely the different physical properties that are at hand in the various instances of monetary exchange. Having granted that any event that consists of a monetary exchange can be correctly described in the language of physics, and that thus described it will also fall under some law of physics, he points out that any such description must be wildly disjunctive, and that it would be an accident on a cosmic scale if it turned out that a natural kind like a monetary exchange was co-extensive with a physical natural kind:

> What are the chances that a disjunction of physical predicates which covers all these events (i.e. a disjunctive predicate which can form the right hand side of a bridge law of the form "x is a monetary exchange ↔...") expresses a physical natural kind? In particular, what are the chances that such a predicate forms the antecedent or consequent of some proper law of physics? The point is that monetary exchanges have interesting things in common; Gresham's law, if true, says what one of these interesting things is. But what is interesting about monetary exchanges is surely not their commonalities under a *physical* description. A natural kind like a monetary exchange *could* turn out to be co-extensive with a physical natural kind; but if it did, that would be an accident on a cosmic scale.[90]

Let us also consider the example of a chair, and let us assume: 1) that a chair is a functional kind in the sense that, although chairs can have rather different shapes or structures (kitchen chairs, office chairs, recliners, etc.), they all fulfill a certain function, namely, the function of being something a person can sit in, and 2) that this functional kind can be reduced to an indefinitely large disjunction of natural properties. We then ask what explains that the chair is capable of supporting me when I am sitting in it? Surely the explanation is not to be found in the chair's *function*, but in the relevant disjunction of natural properties, that is, that the chair is made of materials that hold together in the right way. What this means, then, is that it is the relevant disjunction of natural properties, not the chair's property of being a functional kind, that explains the relevant species of human behaviour, namely, my sitting in a chair.

Adopting some useful terminology from the philosophy of mind, we may say that, on Moore's analysis, the property of being a functional kind is a second-order property,

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[88] D. Davidson, *Actions*…, p. 17.
[89] J. Fodor, *Special Sciences (or: The Disunity of Science as a Working Hypothesis)*, "Synthese" 1974/28, pp. 97–115.
[90] J. Fodor, *Special Sciences*…, pp. 103–104.

a so-called *role* property, which is realized by an indefinitely large disjunction of first--order, natural properties, also called *realizer* properties. [91] This means that the property of being a functional kind is nothing over and above the second-order, role property of having a disjunction of first-order, realizer properties. For it is clear that an important feature of functionalist analyses in general is that any given role property can be realized in different ways. What two role properties of the same type, say, two properties of being in pain, have in common is that although they can be realized in different ways, say, in different types of organisms, they play the same (or a very similar) causal role in the different types of organisms (or, more generally, systems).[92]

We see, then, that the reason why the property of being a functional kind does not and cannot occur in laws that explain the behaviour (or event) is that functional kinds, conceived as indefinitely large disjunctions of natural properties, are necessarily *multiply realizable*, in the sense that the role property of being a functional kind can be realized on different occasions by different realizer properties, which will have different, perhaps very different, causal powers.[93] For this means that the property of being a functional kind cannot have the kind of nomological unity it needs to be part of a law.

Jaegwon Kim considers two different ways of spelling out this objection. One way is to argue that the property of being a functional kind is a *disjunctive* property, that is, a second-order property that has the property of having certain other (first-order) properties. If the property of being a functional kind is such a second-order, disjunctive property, then the heterogeneity of the first-order properties means that it is not, and cannot be, a property with the kind of nomological unity required of a property in terms of which laws are to be formulated.[94] Another way to flesh out the above-mentioned idea is to give up the idea that the property of being a functional kind is a disjunctive property and focus instead on a basic desideratum on such properties, namely, that they have *causal powers*, and on the fact that their causal powers are found *exclusively* in the causal powers of the first-order properties that realize them. The problem here, as in the case of disjunctive properties, is that the very idea of multiple realizability *means* precisely that the property of being a functional kind will be realized on different occasions by different first-order properties, which (as we have seen) will very likely have different, perhaps very different, causal powers; and this, of course, casts serious doubt on the capacity of the functional kind property to be part of laws.[95] Clearly, what Kim says of mental properties also applies to Moore's account of legal functional kinds, such as legal obstructions, malice, textual interpretation, etc. For, as we have seen, they are also second-order, role properties, and they are also supposed to have causal powers.

We see, then, that if the property of being a functional kind is such a second-order, role property, as I believe it is, we must conclude that Moore's claim – that functional legal kinds, such as intention, legal obstruction, malice, injustice, etc., are part of the best explanation of human behaviour – is false; and this in turn means that functional kinds, if they do exist, as I think they do, do not owe their existence to their capacity of explaining human behaviour. Instead, we may perhaps say that they owe their existence to what we might call their *sorting* function, that is, their function of helping us sort the

[91] J. Kim, *Philosophy*…, pp. 116–119.
[92] J. Kim, *Philosophy*…, p. 121.
[93] If they did not, would they really be *different* (realizer) properties? See: J. Kim, *Philosophy*…, p. 119.
[94] J. Kim, *Philosophy*…, p. 117.
[95] J. Kim, *Philosophy*…, p. 119.

world into useful categories (cars, trains, bicycles, games, friends, enemies, weapons, colleagues, eligible bachelors or bachelorettes, clothes, food, etc.) and thus in this sense understand, and orient ourselves in, the world.[96]

What I have endeavoured to show in this section, then, is that functional kinds cannot be part of the best explanation of human behaviour. If I am right about this, Moore will have to give up: 1) the view that functional kinds are identical to indefinitely large disjunctions of natural properties, 2) the view that functional kinds are part of the best explanation of human behaviour, or both (1 and 2). But if he drops 1, his naturalism will be undermined, and if he drops 2, he will have to admit that: 1) functional kinds do not exist or – provided that he can come up with some other explanation of the existence of functional kinds, say, that they fulfil the above-mentioned sorting function, 2) they are not as interesting as they seem. Clearly, neither alternative will be appealing to Moore.

12. Legal functional kinds – a concluding assessment

Intriguing as the idea of a legal functional kind is, especially when developed with the skill and philosophical acumen of an author like Michael Moore, a consideration of the problems I have identified in the foregoing leads me to the conclusion that this idea should not play a central role in a theory of law or legal reasoning, or, for that matter, in any other theory of legal entities, properties or phenomena. As we have seen, not only it is very difficult to determine the function of a (purported) legal functional kind (section 8) and to identify the disjuncts of the indefinitely large disjunction of natural properties to which Moore believes the legal functional kind can be reduced (section 9), but also to explain how legal functional kinds can explain human behaviour (sections 10 and 11). The problems as regards the explanation of human behaviour are, first, that it is difficult to see how a legal functional kind can cause a certain human behaviour, given that the relation between the functional kind and the behaviour appears to be logical (or conceptual), and, secondly, that legal functional kinds are necessarily multiply realizable and therefore lack nomological unity, so that they cannot be part of laws that explain human behaviour. As I have already said (in section 1), the fact that functional kinds lack nomological unity means that Moore will have to give up the view that functional kinds can be reduced to indefinitely large disjunctions of natural properties, or the view that functional kinds are part of the best explanation of human behaviour, or both; that if he drops the former, his naturalism will be undermined, and that if he drops the latter, he will have to admit either that functional kinds do not exist, or that they are not as interesting as they seem.

Legal Realism and Functional Kinds:
Michael Moore's Metaphysically Reductionist Naturalism

Abstract: Michael Moore defends an account of scientific, mental, moral, and legal properties, according to which there are not only natural kinds, but also moral and functional kinds; and he maintains, more specifically that: 1) distinctively legal phenomena, such as legal rights, precedent, malice, etc. are functional kinds, in the sense that they have a nature that consists in the function they fulfill in law, 2) the function of a functional kind is that effect, or those

[96] Thanks to Staffan Carlshamre for suggesting this idea.

effects, of the functional kind that causally contribute more than does any of its other effects to the goal of the larger system within which it occurs, and 3) functional kinds can be reduced to indefinitely large disjunctions of natural properties, 4) the relevant version of naturalism is metaphysically reductionist naturalism, and 5) functional kinds play an indispensable role in the explanation of human behaviour.

I argue, however, 1) that the method for determining the function of a (purported) functional kind proposed by Moore is too indeterminate to be able to pin down the function. I also argue 2) that it turns out to be very difficult to identify the properties that are part of the indefinitely large disjunction of natural properties which, on Moore's analysis, is identical to a functional kind, 3) that functional kinds cannot be part of the best explanation of human behaviour, because they lack nomological unity, and that they lack such unity because they are necessarily multiply realizable, and 4) that Moore will therefore have to give up: a) the view that functional kinds are identical to indefinitely large disjunctions of natural properties, b) the view that functional kinds are part of the best explanation of human behaviour, or both (a and b). I also argue 5) that the idea of a functional kind should not play a central role in any theory of law or legal reasoning.

Keywords: functional kinds, naturalism, realism, conventionalism, causal theory of meaning, nihilism, skepticism

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