

“As a Good Bartender Might: Whiskey and Natural Kinds”

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The second principle is that of division into species according to the natural formation, where the joint is, not breaking any part as a bad carver might.

— Plato, *Phaedrus*¹,

Carving Nature at Its Joints

The world is replete with things of many kinds. There are mountains and trees, cats and dogs, houses and castles, flowers and weeds. And there are whiskeys.

We human beings are remarkably adept at sorting the things of the world into various categories, types, or kinds. Small children quickly learn to sort objects according to their shape, size, color, number, and more. Before long we sort things in innumerable ways: by ripeness, by sweetness, by cost, by beauty, by weight, by familiarity, by luster, and so forth.

Some of the distinctions that we draw seem to be in the world, or in nature; they “carve nature at its joints” as the expression goes, and as a good butcher does according to Plato. The differences between mushrooms and trees, cats and dogs, or silver and gold seem to be of this sort. Philosophers call these sorts of categories natural kinds. Other categories seem to reflect more about we human beings and our peculiar habits than about the world we inhabit: the beautiful things, the shiny things, weeds, things that go bump in the night, things within one kilometer of the Eiffel Tower. These are among the non-natural kinds. To call them “non-natural” is not to say that they are supernatural, spooky, or mysterious; nor is it to deny that there are things of such kinds. It’s just to say that they don’t categorize the world “according to the natural formation,” as the quotation from *Phaedrus* describes. Given the human aptitude for inventing or discovering new categories, it is perhaps inevitable that some will express our own

¹ Plato, *Phaedrus* at 265d. (B. Jowett, trans., in the public domain.)

interests and preferences rather than any facts about the world considered independently of those interests and preferences. It might even be that most of the categories we employ in daily life are “non-natural” in this way, i.e., that they express our own interests and preferences.

The particular kind of thing of interest herein is whiskey. Or, better yet, the kinds of things that are of interest herein are whiskeys—bourbons, Scotches, Irish whiskeys, rye and so on. Is whiskey a natural kind? Does the category *whiskey* carve nature at its joints? What about bourbon and Scotch—are they natural kinds?

We are interested in natural kinds for many reasons. One reason is that we simply want to know about the world we live in. We want to know about its natural features, as well as those that are dependent on us. A second reason is that the natural kinds, among the features of the world, seem to be in the most basic or fundamental. It is commonly thought that all the non-basic kinds of things in the world depend upon the basic natural features of the world. Third, the natural kinds are useful. In particular, they appear to be especially effective for formulating accurate explanations and predictions in science and in everyday life. No doubt there are other reasons to be concerned about the natural kinds.

It seems to me that there are at least two basic ways that one could settle once and for all the question about whether whiskeys are natural kinds. One tactic would be to provide a philosophical account of natural kinds, and then see if whiskeys have the features that natural kinds are supposed to have. Another tactic would be to assume that whiskeys are natural kinds if anything is—what could more obviously “carve nature at its joints” than the distinction between whiskey and vodka, after all—and then formulate an account of natural kinds that vindicates this assumption. These tactics either begin with or end with a fully-formed account of natural kinds,

and that is a tall order. Any general account of natural kinds will be contentious.² And even if we assume that whiskeys are natural kinds, a general account of natural kinds will have to be responsive to much more than that one assumption. So let us not attempt to settle once and for all the question of whether whiskeys are natural kinds. Rather, let us consider some of the features that natural kinds are supposed to have, and ask whether whiskeys or varieties of whiskeys have them. We won't settle the question for all time, but perhaps we can get a sense of whether whiskeys are more like natural kinds or non-natural kinds.

Kinds, and the Symptoms of Natural Kinds

First, we need to say something about kinds in general. I began by saying that there are many kinds of things in the world. But what are kinds?

Consider the word 'bourbon'. How many letters are in the word 'bourbon'? At least two answers seem acceptable: seven, and five. If we count each token, that is, each particular letter, then there are seven (b, o, u, r, b, o, n). If we count each kind, that is, each type of letter, then there are five (b, o, u, r, n) because 'b' and 'o' are each repeated. So there are seven token letters and five letter types in the word 'bourbon'. The original question (How many letters are in the word 'bourbon?'), it turns out, was ambiguous: it can be interpreted as asking about token letters or about letter types.³ Most people are already familiar with the distinction between letter tokens and letter types, though perhaps they don't know it by name. If you are playing Scrabble, you must form words containing at least two letters. This rule applies to token letters. Some

² See, for example, W. V. O. Quine, "Natural Kinds," in his *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969); Ian Hacking, "A Tradition of Natural Kinds," *Philosophical Studies* 61 (1991): 109-126; or Richard Boyd, "Kinds as the 'Workmanship of Men': Realism, Constructivism, and Natural Kinds," in Julian Nida-Rümelin, (ed.), *Rationalität, Realismus, Revision: Proceedings of the Third International Congress, Gesellschaft für Analytische Philosophie* (Berlin: de Gruyter, 1999.)

³ One could also say that there are two kinds of letters in 'bourbon': consonants and vowels. The example of token letters is adapted from David Armstrong's example of token words, in his *Universals: An Opinionated Introduction*. (Boulder, CO: Westview, 1989.)

Scrabble dictionaries will allow the words ‘aa’ and ‘mm’ to be played. If you were to deny that ‘aa’ and ‘mm’ are legal Scrabble words, it would be because you doubt they are words at all, not because you believe that they are words that contain only one letter.⁴ But other games count letter types or kinds rather than letter tokens. If you are a player on the television game show Wheel of Fortune, you try to solve a puzzle by guessing letters in a hidden word or phrase. You earn prize money for each letter of the type you name that is in the hidden word or phrase. So if the word is ‘bourbon’ and you guess the letter ‘b’, you earn prize money for each token letter of the type ‘b’ in ‘bourbon’. If you guess ‘b’, you would be cheated if they revealed only one of the tokens, such as ‘- - - b - -’. This is because you understand that you are guessing letter types, not just letter *tokens*. One could easily imagine a game similar to Wheel of Fortune but in which contestants had to guess letter tokens. Crossword puzzles are something like this.

Now that we have set out the general idea of tokens and types or kinds, let’s focus on those b’s and o’s in ‘bourbon’. What makes the two b’s tokens of the same letter type, or kind? This is just a particular example of the question: What makes any thing a member of any kind at all? One can imagine that the world contains no kinds, that everything is entirely distinct from everything else, except perhaps in belonging to the so-called kinds “things” or “stuff.” The traditional philosophical doctrine of nominalism holds something like this. In its most simplistic and least plausible version, nominalism is the view that there are only things and words, and we apply some words to more than one thing. Concerning *whiskey*, the crude nominalist would claim that there is no further explanation of why we apply the word ‘whiskey’ to more than one thing, that’s just how it is.

⁴ ‘aa’ designates a kind of lava; ‘mm’ is a word used to express pleasure or satisfaction, especially concerning a food.

But many of us think that there is an explanation for why words or concepts apply to more than one thing. The answer is that they have something in common. But saying what that “something” is turns out to be devilishly difficult. Take our running example of letter tokens and letter types. Let us suppose that there is, after all, an answer to the question: What makes the two b’s tokens of the same letter type, or kind? And let us suppose that that answer has to do with the tokens having something in common, or being alike in some way. What way? Maybe they have the same shape? But we quickly notice that can’t be quite right because there is also a letter ‘b’ at the start of this sentence, but it is not the same shape as the other b’s in this sentence. The capital ‘B’ is not even similar in shape to the lowercase ‘b’. And that letter can be printed in different fonts, or written in cursive handwriting, or by a small child, or gestured in sign language.

Shape, as it turns out, is not the common factor among members of letter types. Perhaps shape is a common factor for some other kinds of things (such as baseballs or tennis courts), and perhaps not. The important lesson is that being a member of a kind often involves having one or more characteristic that qualifies a thing for being a member of that particular kind. These characteristics are what philosophers think of as the essential properties of a kind of thing—the properties that are had by all members of a kind, and without which a thing would not be (or would cease to be) a member of that kind. The essential properties of mouse traps include, we might think, that they have the function of catching or killing mice. The essential properties of diamonds include being a certain kind of carbon lattice molecule. And if I invent a new kind—for example by stipulating that a ‘qwafp’ is any thing that is sitting on my desk at a certain time—then it is an essential property of qwafps that there are or were located on my desk at that

time. If whiskey is a natural kind, then there must be some common feature that is had by all and only whiskeys.

Many of us suppose that diamond is a natural kind—one of the kinds that categorize things “according to the natural formation” as in the *Phaedrus*—and that made-up kinds like qwafp are not natural kinds. For natural kinds, the idea is that there is some fact about the world or the object itself that makes it a member of the kind. Think about chemical elements like silver and gold or molecular substances like water and diamonds. Atomic kinds are distinguished by their atomic structures: gold has the atomic number 79; silver has the atomic number 47. Molecular kinds are distinguished by their molecular structure: Water has the molecular structure H₂O; diamonds are crystals formed of tetrahedrally-bonded carbon atoms. If something does not have the atomic number 79, it is not gold; if it does, it is. Atomic number is essential to element kinds; and atomic number, we suppose, picks out a fact about the world that is quite independent of human interest.⁵

Whether whiskeys are more like diamonds or more like qwafps seems to depend on whether the essential properties of whiskeys are depend on human interests or not. But how can we tell which essential properties are in the world in itself (as it were), and which are dependent on human interests? This is the tricky part, the part that calls for the invocation of the sort of general theory of natural kinds that I cannot defend herein. Rather than fret over this lacuna, let us instead take up of what we have handy. We can at least note some of the features that various theories of natural kinds value, and treat these features as symptoms of natural kinds by which such kinds can be identified, however imperfectly. What are the symptoms of a natural kind? I will focus on the following four, which I will clarify below: first, natural kinds are explanatorily

⁵ Of course we have many such interests, but those interests do not make the facts about atomic number what they are, as my interests make the facts about qwafps what they are.

fertile; second, natural kinds serve as the evidential basis for predictive generalizations; third, natural kinds are governed by laws of nature; and fourth, natural kinds are the objects of “rigid” general terms. Each of these symptoms requires some brief explanation before we can consider whether they are features exhibited by whiskeys.

The first symptom, that natural kinds are explanatorily fertile, is just a fancy way of saying that they figure in good and useful explanations. Gold is an explanatorily-useful kind, whereas qwafp is not. I can explain why some mechanism works as it does in part by citing the fact that it has parts that are made of gold, for example, that’s why it conducts electricity as well as it does. In contrast, nothing is explained by citing the fact that something is a qwafp—not even, on pain of circularity, that it is called “qwafp.” Is whiskey an explanatory kind?

The second symptom is related to the first. Natural kinds figure in explanations and also in predictions. If I know that something is gold, and I know some facts about it (e.g., that it conducts electricity well), then I can make some predictions about other gold things. And I can cite as evidence for those predictions the fact that my original observation was of a sample of the kind gold. In contrast, no matter how much I observe a qwafp, I will not be able to generalize or “project” the evidence from that sample into predictions about other qwafps. So two symptoms that a kind is a natural kind are that it figures in useful explanations and accurate predictions. Is whiskey a predictive kind?

The third symptom might just be a way of summarizing or of explaining the first two: It is frequently thought that for a kind to be a natural kind there must be some laws of nature that cover members of the kind. Of course, some law of nature will cover them—gravity covers every material thing, after all. But here we are concerned with laws that cover the members of the kind because they are members of the kind. For example, one might think that it is a law of

nature that water boils at 100°C, or that diamonds can cut glass. These kinds of generalizations might be the foundation for the explanations and predictions that I have called the first two symptoms of natural kinds. Are there any natural laws concerning whiskeys?

The last symptom of natural kinds is that they are often named or referred to by what philosophers call “rigid” general terms. The easiest way to understand this idea is by contrast with terms that are not rigid. Compare the expressions ‘the first person to set foot on the moon’ and ‘Neil Armstrong’. As it happens, both of these expressions pick out the same person. But it did not *have* to be that way—the Soviets might have won the “space race” or Buzz Aldrin might have stepped out first. That is, it might have been that Neil Armstrong was not the first person to set foot on the moon. Were that the case, ‘Neil Armstrong’ would still refer to Neil Armstrong; but ‘the first person to set foot on the moon’ would not refer to the same person, because ‘the first person to set foot on the moon’ would refer to whoever was the first person to set foot on the moon. Proper names like ‘Neil Armstrong’ refer to the same things no matter what—they designate particular persons “rigidly.” Expressions like ‘the first person to set foot on the moon’ are not rigid in this sense; they refer to different things in different scenarios. Natural kind terms are thought to be like names, in that they refer to the same kinds of things regardless. So ‘gold’ would refer to the same kind of stuff (namely, gold) even if the laws of nature were different than they actually are.⁶ Does ‘whiskey’ refer rigidly?

With these symptoms in mind, we can ask: How many of them does whiskey have? And how many are had by particular varieties of whiskeys? Do the distinctions among whiskeys, and

⁶ See especially Saul Kripke, *Naming and Necessity* (Cambridge, MA: Harvard University Press, 1980); Hilary Putnam, “The Meaning of ‘Meaning’,” in Keith Gunderson, (ed.), *Language, Mind and Knowledge*: Minnesota Studies in the Philosophy of Science, VII. Minneapolis, MN: University of Minnesota Press, 1975. And reprinted in H. Putnam, *Mind, Language and Reality: Philosophical Papers Volume 2*, Cambridge University Press, 1975), and Scott Soames’ *Beyond Rigidity: The Unfinished Semantic Agenda of Naming and Necessity* (New York: Oxford University Press, 2002.) But for doubts about this theory of reference, see David Lewis, *On the Plurality of Worlds* (New York: Basil Blackwell, 1986).

between whiskeys and other things, divide the world as Plato supposes a good butcher—or bartender—should?

First Pass: Liquor, Beer, and Wine

The store where I buy beer, wine, and liquor is organized according to the kinds of things that are stocked in each aisle or area. There are aisles for different wine varietals, for wines from Spain or from Australia, for beer, for soft drinks, and so forth. There is an aisle for Scotches, an area for bourbons, and designated shelves for Irish, Canadian, and rye whiskeys. Some of the areas are larger and some smaller. The store's organization gives the impression that one is walking through a giant periodic table of beverages. It seems that these retail distinctions could not be clearer, and that they surely mark natural formations of the world. But how does whiskey fare on the criteria for natural kinds outlined above?

To begin, consider whether the category *whiskey* is explanatorily fertile or evidentially useful in formulating predictive generalizations? Are there truths about whiskey that do not apply to other distilled spirits? It is tempting to appeal directly to the distinctive tastes of the various beverages. But two problems lurk. The first is practical: Is it true that whiskeys all have a reliable taste, such that one can formulate explanations and predictions about them? It is hard to think of some claim that I could make about the taste of whiskeys that would apply to all of them and to nothing that is not a whiskey. It's doubtful that all and only whiskeys are smoky, oaky, peaty, or have a toasted grain taste. But suppose there were some such feature that could be explained or predicted by the fact that a beverage is a whiskey. A second problem awaits: How something tastes may be as much a fact about the taster as it is about the stuff in the world. How a whiskey, beer, or wine tastes may depend on what kind of critter I am, on my own

peculiar genetically and environmentally sculpted taste buds, and on what else I am eating and drinking at the same time or have been eating or drinking lately. Tastes are good candidates for what philosophers call *secondary* or *response-dependent* qualities. These are features of how things affect us; and they seem to be features of us or of our relationships to things, rather than of the things themselves. Although it is less likely, tastes might even be entirely subjective experiences of one individual that just happen to be stimulated by things that contact the olfactory and gustatory sense organs. Could it be that the taste of whiskey to me is the same as the taste of beer to you?

It's also extremely unlikely that there are natural laws that apply only to whiskeys. Perhaps we could think of laws of nature that apply only to distilled spirits, brewed beverages, or wines. But even that is a stretch. The problem for finding the kinds of lawful, explanatory, or predictive generalizations about whiskeys is that the category seems to pick out things according to how they are produced rather than according to the features of the resulting product. This is also a hint to what sorts of commonalities they might in fact have, and a possible way of saving the idea that whiskey is a natural kind.

First, if facts about how something was produced can count as features of the thing itself, then maybe there is a common feature to all and only whiskeys: Whiskeys are distilled liquors—unlike beers and wines—and they are those which are produced from a grain mash—rather than from potato, or from fruit. (We might also specify that it is distilled to around 70% alcohol; or that no addition flavorings are added, as in a gin head.) We would no doubt have to adjust our parameters to get this category just right, but it seems promising. It is at least as promising as finding a category for biological kinds like hearts and lungs. Infamously, it's not the case that all hearts have any obvious features in common. They come in many shapes, sizes,

and configurations. And it is an unfortunate medical fact that it is not even the case that all hearts pump blood—for some hearts fail to do so, or cease to do so, and do not thereby fail or cease to be hearts. A broken heart is a heart just the same. If hearts have anything in common at all, a good candidate might be that they are produced and maintained by natural selection because their predecessors pumped blood often enough in the evolutionary ancestors who had them. And one can offer some—plainly fallible, but nevertheless useful—explanations and predictions about hearts based on this historical fact. We can say, for example, that that many hearts will pump blood, at least in ordinary or ideal circumstances. Or we can explain why creatures like us have hearts rather than not. And so on.

If this kind of historical feature is good enough to make hearts natural kinds, then perhaps our whiskey can qualify as a natural kind on the grounds that it must be produced in a certain way. We can perhaps predict whether a certain apparatus will produce whiskey rather than vodka, gin, or wine. And we can perhaps explain why some substance is a whiskey, or a whiskey with particular qualities, by citing the fact that it was produced in a certain way.

And this brings us to the fourth criteria for natural kinds. For among the kinds of things that are referred to by “rigid” designators are some that have a particular sort of historical essence: namely, their origins are essential to them. Some philosophers believe that particular human beings have their origins essentially—I could not have different parents than I do, for example. ‘Thomas Polger’ always refers to a person with that history, and thus always to me.⁷ If my children had different parents, they would be different children. So *these* children, *my* children, must have the parents that they in fact have, the origins that they in fact have, essentially. Proper names, as I said earlier, are rigid designators. And ‘heart’ might be like this:

⁷ Suppose for the sake of the example that I am the only person who in fact has this name—which is true as far as I know.

something a lot like a heart that was not produced and maintained by the historical process would not, strictly speaking, be a heart. And if whiskeys are like hearts, then ‘whiskey’ might be like ‘heart’. If so, then ‘whiskey’ is a rigid term as well.⁸

If we’re in the right ballpark, then whiskey satisfies one or two of the usual criteria for being a natural kind, and maybe even all four if we are willing to allow historical features to figure in our explanatory and predictive generalizations.

Second Pass: Bourbon, Rye, Scotch, and Irish Whiskeys

One problem with treating whiskey as a natural kind is that there are many kinds of whiskeys: bourbons, Scotches, Irish whiskeys, rye whiskeys, Canadian whiskeys, and more. Some of the differences among these things are incidental. But other differences are relevant to the features that make them all whiskeys while also making them different kinds of whiskey. It seems that there is more than one way to be a whiskey. We may wonder whether there is any one feature (or set of features) that all and only whiskeys have in common. Whiskey is a good candidate to be, as philosophers say, “multiply realized.” This is why we had trouble thinking of explanations, predictions, or natural laws that apply to all and only whiskeys.

Even if whiskey is not a natural kind, perhaps some of the kinds of whiskeys are themselves natural kinds? This may seem paradoxical, but it is quite common. Consider the kind rocks. Probably rocks fail to satisfy any of the four criteria outlined above. There are not explanatory or predictive generalizations that apply to all and only rocks, there are not laws of

⁸ This introduces the possibility of what some philosophers would call “swamp whiskey”—something just like whiskey but which is not genuine whiskey. It would be a kind of whiskey forgery. The truth is that philosophers worry too much about such doppelgänger substances.

Donald Davidson introduced the idea of “swampman,” a duplicate of himself that was not born and had no developmental or evolutionary history, but simply popped into existence out of swamp gasses, in “Knowing One's Own Mind” (*Proceedings and Addresses of the American Philosophical Association*, 60 (1987): 441-58.)

nature concerning rocks, and the term ‘rock’ is not rigid. But diamond and jade are both kinds of rocks, and arguably each of them is a natural kind that satisfies most or all of the criteria. So it is possible for a general or “superordinate” kind that is not natural to include other more specific “subordinate” kinds that are natural. Perhaps whiskey is like this.

The suggestion is promising, but not without its own problems. Many types of whiskey do not seem to be good candidates for being natural kinds. This is because their “defining” features include more than just how they are made and of what, but also where they are made. Scotch must come from Scotland, Irish Whiskey from Ireland, and so forth. But these locations are themselves politically variable. That the political boundaries salient for whiskey-lovers have remained relatively stable is an accident of history. The same was not true through the 20th century for all of the wine-growing regions of France and Germany. And even today the official extent of even the great French wine growing regions is up for negotiation.⁹ So it’s hard to see how, say, Scotch can be a natural kind if it must be produced in Scotland, and *Scotland* is not a natural feature of the world, independent of human interests and peculiarities. And national boundaries are surely dependent on human interests. The trouble is that there are few natural generalizations, predictions, and laws that depend on whether something is located or produced inside or outside of a political boundary, as though gravity were different inside and outside of Scotland. Being from Scotland is much more like being within a kilometer of the Eiffel Tower or being a thing that goes bump in the night than it is like being a substance with the atomic number 79.

Of course, we human beings are interested not only in the natural properties of stuff but also in its non-natural properties: being shiny, being bitter, being from Ireland, and so forth. So

⁹ J. Gaffney, “Champagne Region Set to Expand,” *Wine Spectator* online, posted Friday, March 14, 2008.

it's easy to understand why we distinguish Scotch whisky from Irish whiskeys. But that does not assure that the distinction carves nature at its joints.

Bourbon is a somewhat better candidate for a variety of whiskey that is a natural kind. This is because bourbon is characterized by its production process and by the ingredients of the mash that is fermented and distilled—it must be a grain mash containing at least 51% corn. Thus, if grain types are natural kinds, there is a good case to be made that bourbon is a natural kind. But contrary to common belief, bourbon does not have to be made in Bourbon County or even in Kentucky. Now it's true that for something to be labeled as “bourbon” in the United States, it must be produced in the United States. But this is like passing a law that says stuff called ‘gin’ has to be made in England. Such a stricture on bourbon seems to have more to do with trade policy than with the identity of the stuff.¹⁰

One way of salvaging the geographically-specialized whiskeys as natural kinds would be to argue that those geographic boundaries are good indicators of some other feature of the product that is not so humanly dependent as national boundaries. The idea would be that the human laws are crude approximations of the deeper truth. For example, with wine one might suppose that the authorities that fix the geographic range of vinicultural appellations are not creating those regions but are merely trying to correctly record a real distinction already present in the world. This would require taking seriously the idea that *terroir* contributes some distinct (but perhaps indescribable) quality to the product. A similar claim could be made for whiskey production, I suppose. I'm not sure how plausible this would be, particularly in light of the way that distillation erases many of the traces of *terroir* that are supposed to be preserved in fermentation. But it is a possibility worth considering.

¹⁰ If it does not, then perhaps rye whiskey is an even better candidate for being a natural kind. There seems to be no geographic requirement on rye whiskey.

Conclusions, Such as They Are

We have not settled the question of whether whiskey—or bourbon, or Scotch, or Irish whiskey—is a natural kind. But we have garnered a better understanding of what the answer hinges on. At least two key questions require answers: Can natural kinds have their origins or methods of production as essential features? Do geographic locations of origin contribute essential features to whiskeys, or can natural kinds have their relations to particular geographic locations as essential features? I don't know the answers to these questions. I'm sure that not every distinction drawn among beverages qualifies them as natural kinds, but I would like to think that whiskey—bourbon in particular—is one of them. Surely Plato's good butcher would enjoy a good whiskey.¹¹

¹¹ I would like to thank Steve Geisz for introducing me to bourbon, and for many philosophical conversations involving whiskey. I'd also like to thank my in-laws for their support, and for their family tradition of always giving whiskey and socks for Christmas. Finally, I must thank my wife (who managed not to give birth until I was done working on this paper) and children (who managed to sleep while I revised it.)