Chapter 8
Geographic Objects and the Science of Geography

Amie L. Thomasson

Abstract Human geography studies places—considered not just as spatiotemporal locations, but as places of human significance, such as nations, electoral districts, and parks. Such entities are generally thought of as depending on the beliefs and practices of the peoples who live there. The mind-dependence of such entities, however, leads some to doubt whether we can really make discoveries in human geography, and even whether the entities studied in human geography are real parts of our world. This paper examines the ways in which geographic entities may rightly be said to be mind-dependent, and what consequences this mind-dependence does and does not have regarding whether human geography may be a potential source of knowledge and discovery, and regarding whether we should accept that geographic entities exist.

Keywords Geographic objects · Ontology of human geography · Mind-dependence

The basic facts tracked by geographers involve such things as nations, electoral districts, population distributions, and industrial and agricultural zones. The importance of such things goes beyond the theorizing of the social sciences, however; as has been remarked (Smith and Varzi 2000: 404), people fight wars over such things as national boundaries and dedicate entire industries to the maintenance of political and property boundaries.

Yet it is a commonplace that such entities as those above—those studied by *human* geography rather than *physical* geography—depend in certain ways on the beliefs and customs of the people of the region studied. This mind-dependence leads some to doubt whether geography can really be considered a science involved in making discoveries about the world, and whether or not the purported facts studied by geographers should really be considered as existing at all. First, if these facts are in some way the products of our minds and social practices, it is often thought, they must be transparent to those involved in their creation and maintenance. As George Lakoff puts it:

A. L. Thomasson (✉)
Department of Philosophy, Dartmouth College, Hanover, NH, USA
e-mail: Amie.L.Thomasson@Dartmouth.edu

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> In general, extending objectivism to include institutional facts gets one into trouble with the assumption that metaphysics is independent of epistemology. The reason is that institutions are products of culture and hence products of the human mind. They exist only by virtue of human minds (Lakoff 1987: 207).

But if the very existence of institutional and other facts studied by human geography somehow depends on our knowledge of them, it is difficult to see how geographers could be thought to make discoveries about the world.

Second, if we do have this epistemic privilege with regard to the facts and kinds of facts apparently studied by human geography, it is often said, we cannot be realists about them. For realism is often regarded as requiring what Crawford Elder calls the "doctrine of epistemic non-privilege", that "all constituents of the world exist, and are as they are, independently of whether anyone ever does or can form true beliefs about them" (Elder 1989: 440), so that as a result:

> Realists … must either argue that members of a given culture could in fact hold shared beliefs about their own CGKs [culturally generated kinds] that were massively mistaken, or else maintain that CGKs are not genuine components of the world (Elder 1989: 427).

Thus, any privileged knowledge regarding these facts and kinds that arises in virtue of their mind-dependence might be thought to present obstacles to being realists about them.

The goal of this paper is to examine the way(s) in which geographic entities may rightly be said to be mind-dependent and to examine what consequences this mind-dependence does and does not have regarding whether human geography may be a potential source of knowledge and discovery, and regarding whether we should accept that geographic entities exist. I will suggest that arguments about whether they are mind-dependent, and whether mind-dependence in general entails epistemic privilege, or should lead us to deny the existence of the entities in question, are far too coarse. As I will argue, there are several distinct senses in which various geographic entities may be said to be mind-dependent. We must examine matters on a case-by-case basis to resolve what difference(s), if any, mind-dependence of various sorts makes to our epistemic relation to them and to the potential range of discovery of human geography. I will close by asking what impact these results should have on the issue of whether or not we should accept that there really are geographic entities of these kinds.

Varieties of Mind-Dependent Geographic Objects

Geography distinguishes itself from other social sciences by its focus on place. But the studies of human geography do not merely focus on places in the sense of abstract spatiotemporal locations or the slabs of land that form the continents of the global landscape. Instead of or in addition to land and space so considered, the places of concern to human geographers are often regions artificially singled out from the larger landscape and/or endowed with social significance (as nations, electoral

districts, parks, industrial zones) by the beliefs and practices of the local culture. As a result, it is virtually a truism that the facts studied by human geography (that this piece of land is U.S. territory, is a national park, or is an industrial zone) depend in some ways on human mental states, more particularly on the collective intentionality of the people and cultures inhabiting those places.[1] Correlatively, the geographic objects so formed (this nation, park, or zone, *qua* nation, park, or zone) likewise can be said to depend on collective intentionality.

It is far less clear, however, what form this dependence takes and what that dependence entails. For although such geographic objects are clearly mind-dependent in some ways, they also have independent foundation in the pieces of land that have such properties as being bounded in a certain way, being an electoral district, or being an industrial zone.[2] Their foundation in independent tracts of land immediately distinguishes them from mere mental constructs or figments of the imagination. Thus, we need to begin by sorting out the different senses in which such diverse geographic objects as mountains, nations, and industrial zones are mind-dependent.

Recent work on fiat boundaries and the associated fiat objects has done much to move forward discussion of one sense in which many geographic objects are mind-dependent (Smith and Varzi 2000; Smith 2001). Whereas "bona fide " boundaries exist entirely independently of human cognitive activities, being based solely in "spatial discontinuities and … intrinsic qualitative differentiation", fiat boundaries fail to correspond to any genuine heterogeneity among or within entities in the world, and so exist "only in virtue of the different sorts of demarcations effected cognitively by human beings" (Smith 2001: §1). Thus, e.g., the coastal boundaries of Key West are bona fide , marking an actual difference between land above and below sea level, while the boundaries of states such as Wyoming are entirely fiat boundaries. Objects demarcated by boundaries that are even partially fiat boundaries (as, e.g., the state of Maryland) may be termed "fiat objects" (Smith and Varzi 2000: 403).

While fiat boundaries may arise in virtue of the conceptual or perceptual activities of individual agents or of collectives, I will focus here exclusively on those cases of fiat boundaries that are social in the sense of depending on the collective beliefs and customs of a group of people. For it is these social fiat boundaries that are at work in demarcating many of the borders of such objects of human geography as nations, states, electoral districts, parks, and pieces of real estate. In the cases mentioned thus far, this dependence is a dependence on the direct collective creation and

[1] I will limit discussion here to the issues raised by the apparent dependence of facts of human geography on the collective intentionality of the local people. Other issues arise regarding whether or to what extent, e.g., the regions of study explicitly introduced by *geographers themselves* are fiat objects depending on the boundary-drawing activities of geographers (not the collective beliefs and customs of "locals"). I will leave those issues to one side here, since they are not unique to human geography (or other social sciences), but rather involve general issues for the philosophy of natural as well as social science.

[2] Although there may be many sorts of fact referred to in geographic theories that are not land-based in this way, in this paper I will focus on those that are based in place, as these provide a particularly interesting case of mind-dependent facts central to the study of geography.

continued acceptance of such boundaries, establishing and maintaining boundaries by fiat despite a dearth of intrinsic differences in the reality parceled off.

Although the *boundaries* of fiat objects exist only in virtue of the performance of certain human cognitive acts, this does not entail that the bounded objects themselves are mind-dependent. As Barry Smith puts it:

> The admission of fiat objects into our ontology is then at least in one respect unproblematic: all fiat objects are supervenient on bona fide objects on lower levels, in the sense that the fixation of relevant traits at the lower levels suffices to fix the values of traits at higher levels. The interiors of fiat objects are in this sense autonomous portions of autonomous reality. Only the respective external boundaries are created by us; it is these which are the products of our mental and linguistic activity, and of associated conventional laws, norms and habits. The relevant underlying factual material is in every case unaffected thereby (Smith 2001: §8).

It is clearly true that the fact that an object is a fiat object does not entail that the object itself is mind-dependent, but only that some of its boundaries are (or that it *qua* bounded is). Such fiat objects as Mount Kinabalu provide excellent examples of fiat objects whose mere existence (as physical objects) is mind-independent, though the existence of certain of their boundaries depends on human cognition.

Many of the most interesting fiat objects, however, are also objects with important social status—nations, states, electoral districts, pieces of real estate, national parks, etc.—whose boundaries are at least in part drawn by fiat. Qua social objects, however, these things are not (even apart from the dependence of their boundaries) "autonomous portions of autonomous reality", although as Smith points out, the lower level physical objects they are based in may be. While the parcel of land belonging to the United States may be an autonomous portion of reality depending on human cognition only for its boundaries, its status as the national territory of the United States of America is not. For a nation, as such, can exist only through people recognizing the right of certain individuals to occupy, govern, and protect a certain parcel of land, and thus the existence of the nation itself (and the land's status as the national territory) depends on human agreements, beliefs and practices.

Thus, apart from the status of many geographic entities as fiat objects, which depend for their boundaries on human intentionality, there seems to be a separate sense in which geographic objects may be mind-dependent: they may also depend for their social status on forms of human intentionality. This difference, I would conjecture, lies behind the intuition noted by Smith (2001: §11) that not all fiat objects "belong in equal degree to the fiat realm", since there is some sense in which such apparently fiat objects as bays and mountains (but not nations and property) could exist in the absence of all linguistic and cultural habits. In fact, the issues of dependence-for-boundaries versus dependence-for-social-status are entirely orthogonal to one another. There may be fiat objects (such as mountains and bays) that do not involve any social status whatsoever. There may also be geographic objects with significant social status, such as the nation of Jamaica, that have only bona fide boundaries and thus are not fiat objects. Speaking of many geographic objects as "dependent on the cognitive states of human beings" is thus ambiguous between

claiming that they depend on human intentionality for their boundaries and that they so depend for their social status.

The ambiguity may be resolved, however, by paying careful attention to what it is that is claimed to be mind-dependent. In the case of Jamaica, it is the fact that this island has the status of being a nation that is mind-dependent (the land itself being capable of independent existence); in the case of Mount Kinabalu, it is the fact that this lump of rock has these boundaries separating it from the surrounding landscape that is mind-dependent (the rock itself being capable of independent existence). In some cases, facts regarding boundaries, in others, facts regarding social or institutional status, etc., are mind-dependent. Provided we keep these differences in what is dependent clear, the mind-dependence across the various cases may be treated together.

Facts involving the social status and fiat boundaries of geographic objects, then, are apparently alike in the sense of being products of human minds. But how can human mental states create such facts (whether it is the fact that Mount Kinabalu ends about here or the fact that this island is an independent nation)? Although these may not be exhaustive, I will consider three major methods for the creation and maintenance of various kinds of geographic fact: Direct creation by token, direct creation by type, and indirect creation.

Direct Creation by Token

The most straightforward and obvious cases in which facts involving boundaries or social status may depend on human mental states are those cases in which the fact in question (that *x* has these boundaries, that *x* is a nation …) is established and maintained directly by its being collectively believed or accepted to be the case, such that that fact exists if and only if it is collectively believed to exist (accepted as existing, etc.). As John Searle puts the point for social entities: "Part of being a cocktail party is being thought to be a cocktail party; part of being a war is being thought to be a war" (Searle 1995: 34).

In the most basic cases, such facts are established informally and ad hoc, in the absence of any accepted general principles for generating facts of the kind (K) in question. In these cases, it is necessarily the case that, for all *x*, *x* is K if and only if *x* is believed to be K.[3] Thus, for example, Mount Kinabalu has fiat boundaries in a given location if and only if it is believed to, and a particular piece of land may be a village common if and only if villagers accept that it is common land. Such ad hoc facts are generally established by collective custom, rather than through formal declaration. Thus, e.g., the boundaries of Mount Kinabalu are not established through any formal declaration, but rather through the informal collective practices of people of Borneo regarding what pieces of land and rock do and do not "count

[3] "Believed" here should be taken as a placeholder for any of a number of appropriate intentional relations, including believed to be, regarded as, accepted as, etc.

as" part of Mount Kinabalu[4]. Similarly, according to the customs of a local group, a piece of land in a village may be a common if and only if it is accepted as such by the villagers, though no formal declaration of it as common land may be necessary (nor perhaps considered sufficient)[5].

In many other cases, the token creation of facts involving fiat boundaries or social status may proceed by formal declaration rather than informal practice. Thus, e.g., the fact that a piece of land has certain fiat boundaries may be established not through extended custom, but suddenly by some individual or group declaring there to be those boundaries (as in establishing the boundaries of Wyoming), and a particular piece of land (fiat or bona fide) may be directly declared a national park through an act of congress. In these cases, still, the existence of the particular fact in question (that these are the boundaries of Wyoming, that this land is a national park) requires recognition of it by someone—namely, at least that person or those people who declare it so. Such formal cases of declaration, however, depend on the prior collective acceptance either of general principles regarding the conditions under which such declarations can be made, or of certain (token) individuals or groups as authorized to draw such boundaries or declare such facts, as, e.g., we collectively accept that any piece of land approved of by congress as a national park counts as a national park.

Direct Creation by Type

The creation of facts by token is a slow and painstaking operation since that very piece of land must be considered as having those boundaries and/or that social status in order to have it. Much efficiency is gained when we move to the creation of facts by type rather than by token. Such facts may be created by type rather than by token only if we accept general principles that stipulate sufficient conditions for the creation of objects of that type. Although they are more typically created ad hoc, fiat objects may be created wholesale if, rather than requiring that someone demarcate each individual line and formally declare it a boundary, we accept some general mathematical principle to partition the globe by longitude and latitude lines, or to divide the farmland of the Midwest, accepting (say) that there are property boundaries every ten miles west and every five miles north of some starting point,

[4]I have intentionally chosen a mountain with local significance and name, since here I am concerned with the social acceptance of fiat boundaries within the local community regarding "their" Mount Kinabalu, rather than the geographer's drawing of fiat boundaries on a map of significant physical features. Clearly, fiat boundaries accepted by locals versus geographers may differ, and cases of the latter sort must be handled separately.

[5]Of course the informal collective concept of a common (or anything else) may ultimately be replaced by a more formal concept that provides conditions for the creation of common land by an act of the monarch or of parliament. This, however, is clearly a *replacement* concept of what it is to be common that may clash violently with the original informal collective concept. Different concepts attached to the same word may require different methods for creating something that falls under that concept.

thus creating those fiat boundaries without each boundary requiring separate and explicit consideration as such.

Similarly, facts regarding social status may be created wholesale if we collectively accept general principles regarding sufficient conditions for an object to have the social status in question. In such cases, it is necessarily the case that something is of kind K if and only if there is collective acceptance of a set of conditions C stipulating sufficient conditions for something to count as (a) K, and that thing meets all of those conditions[6]. Of course in some cases, as in those considered above for the creation of national parks, the general principles may require that some individual or group specifically accept the existence of the fact in question. This need not be required in all cases, however, for we may also accept that anything fulfilling certain general conditions has a certain social status while imposing no requirement that anyone has any beliefs or intentions regarding the particular case in question. The state of North Carolina, for example, protects "public trust rights" in ocean beaches by adopting the constitutive rule that any shoreline land below the highest high tide point counts as public land. In that case, any such land automatically counts as public property without the need for anyone to directly accept each and every such (token) stretch of land as public property. Similarly, Treasure Trove laws in England and Wales entail that "gold and silver objects which have been hidden (rather than lost or abandoned) in the soil or in buildings, and for which neither the original owner nor his heirs can be traced" are property of the Crown, regardless of whether or not anyone (currently living) has any beliefs regarding those gold or silver objects at all[7].

In such cases, the facts that there are fiat boundaries here or there still depend on human intentionality, for they could not exist were it not for the collective acceptance of certain principles regarding a set C of sufficient conditions for something being (a) K. But given that collective acceptance, anything satisfying all of those conditions C automatically counts as (a) K regardless of what anyone thinks about that particular case. Although such facts do not depend on anyone accepting that token fact itself, they do depend on intentional states regarding that kind of fact, and outlining sufficient conditions for facts of that kind to be created.

Indirect Creation

The cases considered thus far all require collective beliefs on the part of local people regarding the particular fact or kind of fact in question, but this is not universal among the facts studied by geographers. Consider, for example, the facts tracked

[6]Note that this must not be confused with merely verbal stipulations about what conditions are required for something to be *called* a "K". We do collectively accept certain conditions as sufficient for something to be called a "ewe", for example, but the kind *ewe* is not a constructed social kind, since it is not necessary, for something to *be* a ewe, that anyone accept any sufficient conditions for being a ewe.

[7]Department of National Heritage statement DNH 398/96, issued on 17 December 1996 (http://www.britarch.ac.uk/cba/portant3.html).

on typical geographical maps marking population distributions (e.g., of people of certain religious groups, income levels, political affiliation) or differential uses of land in diverse economic zones (separating the agricultural and industrial sectors, for example). These facts certainly are mind-dependent, for, e.g., there would not be a difference among densities of religious groups to map were there not religions, which in turn would not exist without the existence of a certain set of beliefs and practices of the faithful. Yet the existence of such facts and the corresponding population distributions or economic zones does not depend on anyone having any beliefs (either in this case or in general) that are *about population distributions or economic zones*[8].

The possibility that there may be mind-dependent facts that do not depend on mental states that are *of or about that fact itself*, or even about that *kind of* fact, is often overlooked. Thus, for example, Searle, having defined observer-relative features as features that "exist only relative to the attitudes of observers", in contrast with intrinsic features which "exist independently of observers" (Searle 1995: 11), proceeds to the conclusion that:

> It is a logical consequence of the account of the distinction … that for any observer-relative feature F, *seeming to be F* is logically prior to *being* F, because—appropriately understood—seeming to be F is a necessary condition of being F (Searle 1995: 13).

But it is not a logical consequence of a kind of feature F's depending on observers that seeming to be F is a necessary condition of being F, since the kind of feature F may depend on intentional states regarding other features; nor in general does the mind-dependence of a certain feature F entail dependence on any *F-regarding* mental states. Searle similarly concludes that all social concepts (defined as facts that involve collective intentionality (Searle 1995: 26)) are self-referential in the sense that, for money and all other social concepts, "in order that the concept "money" apply to the stuff in my pocket, it has to be the sort of thing that people think is money" (Searle 1995: 32). But while this may hold for directly created social kinds, it is clearly not true for those that are the indirect products of collective beliefs and practices regarding other kinds of things entirely (see Thomasson 2003).

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[8] A similar phenomenon may occur in certain cases of fiat boundaries. For although all fiat boundaries depend on human cognition, they need not be deliberately created and maintained. Thus, e.g., Smith discusses cases of individual perceptual (as opposed to collective geographic) fiat boundaries that may be unintentionally created:

> The term "fiat" (in the sense of human decision or delineation) is to be taken in a wide sense, as including not only deliberate choice, as when a restaurant owner designates a particular zone of his restaurant a no-smoking area, but also delineations which come about more or less automatically, as when, by looking out across the landscape, I create without further ado that special type of fiat boundary we call the *horizon* (Smith 2001: §2).

Similarly, the visible field of a perceiving subject has fiat boundaries created only in virtue of acts of perception, though those fiat boundaries do not require any perceptions or thoughts *about them* or *about boundaries of visual fields generally* in order to exist. In such cases, the fiat boundaries do depend on mental states, but not states that are themselves of or about those boundaries (instead they may be about the landscape or a parrot in the distance). It is more difficult to find cases of indirectly created collective geographic fiat objects.

Consequences for the Epistemology of Geography

As we have seen, many of the facts typically studied by human geography have rather striking ontological differences from the paradigm facts studied by natural sciences, insofar as they depend on human beliefs and concepts. It is less clear thus far, however, what difference this ontological dependence makes to our capacity to acquire knowledge of or make discoveries about these facts. Opinions in the literature vary between the extremes, as Lakoff (1987: 208) asserts that, "In the case of social and cultural reality, epistemology precedes metaphysics, since human beings have the power to create social institutions and make them real by virtue of their actions", meaning, I gather, that knowledge of (or beliefs about) these facts make them the case. Smith, however, takes the contrary view that "Even in regard to human institutions, however, in contrast to what Lakoff has to say, *our thinking does not make it so*" (Smith 2001: §5 n. 6). The stakes are high for determining who is right here, since a close epistemic connection to these facts would lead many to exclude them from an inventory of the world, and would seem to preclude our making discoveries about the relevant social-scientific facts. It would also seem to rule out the possibility that we could expose hidden facts in a critique of extant institutions—critiques such as those engaged in by Foucault (e.g., in 1995), in Haslanger's (2016) work on bringing to light structural explanations, and in the work of many other social critics and reformers.

We can only assess the situation properly by carefully distinguishing the forms of mind-dependence involved in each case and examining what epistemic consequences do and do not follow from the forms of mind-dependence in question. I will consider separately, in turn, the three cases delineated above.

Direct Creation by Token

According to the realist paradigm, in cases of genuine scientific inquiry the facts to be discovered are independent of whatever anyone accepts, beliefs, holds true, etc., regarding those facts. As a result, facts may exist and yet remain entirely unknown, with everyone in ignorance; and widespread or even universal belief in a given fact does not suffice to make it so. Yet although this epistemic picture is widely held and is at least plausible for descriptive facts regarding trees, fish, and electrons, it clearly does not hold for geographic and other facts that are created by token in the manner described above.

Consider first the case of facts regarding fiat boundaries created by token. A bona fide object such as an island or mineral deposit has boundaries that exist and are as they are completely independently of all beliefs about them, making such boundaries subject to genuine discovery and leaving all potential discoveries subject to the possibility of error. The fiat boundaries of fiat objects, however, may not remain unknown to everyone but must be transparent at least to those who establish them. In

cases where fiat boundaries are (directly) established by declaration, the established boundaries are transparent to the creator(s) of those boundaries; if the boundaries exist she must know of them, and since she is involved in declaring them, she cannot get them wrong in the way that everyone, say, could be wrong about the boundaries of Key West. In those cases where fiat boundaries are (directly) established by custom, no particular person's beliefs about the location of the boundaries are protected from error, for the boundary depends only on the collective beliefs of a group regarding it[9]. Nonetheless, taken as a whole, the group cannot be entirely mistaken about where the fiat boundaries (e.g., of Mount Kinabalu) lie, since their beliefs (or what they customarily "count as" part of Mount Kinabalu) are constitutive of the location of the fiat boundaries. This again puts fiat boundaries in contrast with bona fide boundaries, regarding which everyone may be completely mistaken.

Those not themselves involved (by declaration or by custom) in the establishment and maintenance of fiat boundaries may, of course, be entirely mistaken regarding the location or even existence of fiat boundaries; to them, facts about such boundaries are a matter of discovery and may be just as opaque as facts about bona fide boundaries. Nonetheless, the close epistemic relation between fiat boundaries and the beliefs of those who create them does make a crucial difference regarding the method of discovery. To discover the boundaries of an island or mineral deposit, one goes directly to the object itself to track the discontinuities that form the bona fide boundary. By contrast, to discover the boundaries of a tribe's territory or a sacred mound, one cannot seek direct discontinuities in the landscape but must instead seek evidence of where individuals have declared, or people collectively believe or accept the boundaries to be. This captures part of the traditional wisdom that the study of the human sciences requires grasping the intentional states of others.

Much the same goes for social facts created by token: The existence of the fact in question entails that someone knows of its existence, namely, at least those individuals who are required to accept its existence in order for it to exist. In the case of social facts that are token created by custom, there must be collective acceptance of the fact by the relevant group. Thus, e.g., (where commons are created by custom), a common cannot exist in a village without anyone knowing of it, since the tract of land's status as a common exists only if it is collectively accepted as existing. Although any individual may be in ignorance of the fact, the relevant community as a whole cannot be. Similarly, the community as a whole is not subject to error if they accept that a particular piece of land is a common, since (in that context) their collective acceptance of a certain piece of land as a common makes it so. In the case of social objects created by declaration, most members of the sustaining community may be ignorant or in error regarding the particular token fact, but still not everyone may be. Nothing can be a national park unless someone (e.g., at least the members of Congress involved in establishing it as a national park) believes it to be or accepts it as a national park, although it is possible that most members of the local community involved in giving Congress that right remain ignorant of the

[9] Assuming, as seems reasonable, that a group may have a collective intention that P without every member of the group having the intention that P.

particular fact that Congress has so declared it, and thus that this piece of land is a national park.

Direct Creation by Type

Different but equally significant, epistemic consequences arise in those cases where the facts of human geography are directly created by type rather than token. In the case of facts created by type, if a particular piece of land fulfills the conditions accepted as sufficient for the existence of a fact of that kind, that fact exists regardless of whether anyone has any thoughts about that piece of land itself. Thus, here particular facts (e.g., that a piece of land is government property) may in principle remain unknown to everyone, and everyone may be mistaken regarding them (unless the general conditions accepted happen to require token recognition). Here, the interesting epistemic consequences arise at the level of type rather than token.

According to direct reference theories and many scientific realists, natural kinds have a nature that is entirely independent of beliefs, leaving everyone's beliefs about what it takes to be of the kind subject to ignorance and error. But for kinds of social facts directly created by type, the group involved in maintaining the facts has a certain privileged knowledge regarding the nature of the kind. First, any conditions that group collectively accepts as sufficient for something to be a member of the kind genuinely are sufficient for kind membership, for anything that has all of the features accepted as sufficient for kind membership automatically "counts as" being of that kind. Thus, members of the group maintaining such facts are protected from error in at least some of their beliefs regarding what it takes to be of that kind. Second, if there is anything of that kind, there cannot be complete ignorance regarding the nature of the kind. For if there is something of that kind, there must be certain principles accepted regarding sufficient conditions for kind membership, and as we have seen, these must be true.

Thus, we have a much closer epistemic relation to the kinds of human geography that are created by type than we seem to have regarding the natural kinds studied by the physical sciences, leaving less room for the discovery of the nature of the kind here than in the case of gold or tigers. This does not mean, however, that we are all totally immune from ignorance and error regarding the nature of such kinds. Far from it: here again, it is only the group taken as a whole whose beliefs are protected from certain forms of ignorance and error; any particular individual may go wrong or remain in ignorance. Second, the protection from error only applies to conditions accepted as sufficient for kind membership; it does not follow that any other beliefs the group might happen to hold (or necessary conditions they might accept) regarding the nature of the kind do in fact hold. Finally, these forms of epistemic privilege apply only to the group involved in establishing and maintaining the institutional kind in question; outsiders may, of course, be fully ignorant of conditions relevant to membership in the kind. Their discovery of the nature of the kind, however, is

not through direct tests on kind members, but must again involve discerning what principles the people in the relevant group accept as sufficient for kind membership.

Indirect Creation

In the case of indirectly created geographic facts, the answer to the question "What difference does their mind-dependence make?" is very different from the case of facts directly created by token or by type. In both of those latter cases, it is the direct dependence of the fact in question on beliefs (or principles accepted) *about that fact or kind of fact* that leads to the epistemic privilege of certain groups. Indirectly mind-dependent facts, however, such as those regarding population distributions and de facto urban zoning by religion, income, or function, may exist without anyone having any knowledge of their existence, and facts of those kinds may exist without anyone accepting any beliefs about what it takes to establish a fact of that kind. Geographers, of course, may label such regions or even artificially sharpen their boundaries in drawing lines on maps marking various population or functional differences. But the *existence* of the differences in population, culture, or functional use tracked by these labels is independent of the geographer's own concepts and demarcations, as well as independent of any of the locals' beliefs about facts of this kind. Thus, we have reason to resist the conclusion that such formal and functional regions demarcated by human geographers, as one introductory human geography text puts it, "exist only on our maps and in our minds" (deBlij 1977: 7).[10]

As mentioned above, Searle holds the view that one feature of all social reality is that social facts are "self-referential" in the sense that in general, something is of any social kind K only if it—or things like it—is used as, regarded as, or believed to be (a) K. But although this may hold of the institutional kinds that are Searle's focus, it is by no means true of all social kinds whatsoever (see Thomasson 2003). Although the forms of mind-dependence at issue with facts directly created by token or type do entail certain forms of epistemic privilege, it should not be inferred that mind-dependence always provides a closer epistemic relation to the dependent entities; it does not in the case of indirectly created social facts. Facts of such kinds we may call "opaque" since their existence does not imply any knowledge regarding the existence of the particular facts or what it takes for there to be facts of this kind. Even in these cases, however, the method of discovery must include investigation into the beliefs and intentions of the local people involved, for those beliefs or intentions are still at

[10]The regions so marked out by geographers are clearly not pure fiat objects since (if well drawn) they will correspond to certain qualitative differences in the areas; the boundaries may be considered to be fiat boundaries only insofar as geographers' ways of demarcating such regions may impose artificially sharp fiat boundaries on what are in fact merely graded distinctions. This artificial (fiat) sharpening of boundaries, however, occurs not only in human geography but also in physical geography and other scientific representations where graded differences in data are grouped into sharply bounded categories. I shall reserve the analysis of such phenomena and their consequences for another occasion.

least a necessary condition for the existence of facts of the kind in question—though in this case they are not beliefs about that very social fact or kind of social fact.

Summary

As we have seen, the issue of whether or not "epistemology precedes metaphysics" in the case of the social facts studied by human geography is too complicated to be accommodated by either Lakoff's or Smith's general answer. In some cases, namely those of direct creation by token, knowledge (or acceptance) of the fact does make it the case. In other cases (those involving direct creation by type), token facts of the relevant sort may remain unknown or may be falsely believed to exist. But here we still have a closer epistemic relation to the *kind of* fact than we do in the case of natural kinds, since no facts of that kind can exist without certain conditions relevant to the nature of the kind being accepted, and principles collectively accepted regarding sufficient conditions for kind membership must hold, leaving the creating and sustaining group with a privileged knowledge regarding the nature of these social kinds that everyone lacks in the case of natural kinds. These results limit to a certain extent the range of possible discovery open to human geography, and necessitate the use of humanistic methods of discovery for many of these facts and for the nature of these kinds.

Yet these limitations do not unduly constrain the possibilities of geographic inquiry, much less entail that genuine discoveries in human geography are impossible. As I argued in the section on "Indirect Creation", there are many mind-dependent geographic facts the existence of which may be completely opaque to everyone, and so it can be a genuine matter of discovery, e.g., that (or how) cities are typically de facto zoned into economic, religious, or functional sectors. (Of course, formal zoning involves institutional facts that must be transparent at least to those who create and maintain them.) In these cases, Smith's position that our thinking does not make it so is apt.

Even regarding directly created social facts there is much that awaits discovery by social scientists. First, such facts as are token created and maintained by others will remain opaque and require discovery by geographers. Similarly, geographers themselves will have no privileged knowledge regarding the nature of geographic kinds, where facts of that kind are type-created by others. Second, even certain facts involving social status or fiat boundaries within one's own culture may remain opaque and in need of discovery. Indeed the most central issues pursued by geographers involve not discovering the boundaries of fiat objects such as Wyoming, nor the conditions relevant to belonging to a social kind like being a national park, but rather causal relations involving geographic entities, to answer questions such as "Why and how do states evolve and decline?", "What determines the location and spacing of cities and towns?" and the like (deBlij 1977: 3). Such facts remain as much in need of discovery as any and cannot be revealed simply by inspecting the beliefs or principles accepted by ourselves or anyone else.

Consequences for the Ontology of Geography

As we have seen, we do have some epistemic privilege with respect to some of the facts and kinds studied by human geography that we apparently lack with respect to the facts and kinds studied by the natural sciences. According to some formulations of realism, however, any epistemic privilege with regard to a certain (purported) fact or kind precludes it from being admitted to a realist's ontology. Lakoff takes it to be a central feature of objectivism that "No true fact can depend upon people's believing it, on their knowledge of it, on their conceptualization of it, or on any other aspect of cognition. Existence cannot depend in any way on human cognition" (Lakoff 1987: 164). Elder defends such a view when he writes, "I shall myself construe realism as a denial of epistemic privilege" (Elder 1989: 440), namely that:

> … for any component of the world and any set of beliefs about that component, the mere facts that those beliefs are (i) about that component and (ii) are held by the particular believers, by whom they are held, never by themselves entail that that set of beliefs is free from massive error (Elder 1989: 441).

Many of the facts and kinds of human geography, however, would fail such a test: In the case of facts created by token, the fact that those creating the fact have certain beliefs about those facts entails that those beliefs are free from massive error; while in the case of facts created by type, the mere fact that the creating and sustaining community believes certain conditions to be sufficient for membership in a certain social kind entails that those beliefs are protected from error. Thus, all such facts and kinds would be excluded from ontologies following criteria such as Elder's.

But despite the ontological dependence on human intentional states that characterizes many of the facts of human geography, and despite the epistemic privilege that results in at least some cases, we have several strong reasons to resist the conclusion that geographic facts and kinds are not genuine components of the world. The first reason follows from the section entitled "Summary" above. For as we have seen, even in those cases where we do have some epistemic privilege regarding geographic facts and kinds, there remains much about these facts and kinds that is opaque to everyone and in need of social-scientific discovery. Thus, they fail to meet the paradigm of mere creations of our minds—they are certainly not imaginary objects possessing all and only those characteristics we ascribe to them.

The source of the problem here, as so often, arises from assuming a simple dichotomy between the independent entities of nature and imaginary objects that "exist only in our minds"[11]. The objects of human geography—like most of the commonplace entities in the everyday social and cultural world—lie between these extremes. In the case of geography, we are typically concerned with entities that involve independent tracts of land, as well as boundaries or social status that depend on collective intentionality. This in-between position is also reflected in the fact that we have at best some partial epistemic privilege with regard to them, but not the

[11] For further discussion of the problem with this dichotomy and a finer-grained set of categories to deal with the in-between cases, see Chapter 8 of Thomasson 1999.

full transparency expected of total inventions of the mind. This should give pause to those inclined to accept any epistemic privilege as sufficient grounds for assimilating purported entities to the status of the merely imaginary.

As the study of geographic entities makes vividly apparent, questions about whether or not certain kinds of entities are "mind-dependent", and questions about whether mind-independence (in general) entails certain forms of epistemic privilege, are far too coarse-grained to do useful work for us. As we have seen, although all of the facts of human geography that we have considered do depend on collective human intentional states, there are many such (indirectly created) facts and kinds of facts with respect to which we lack any epistemic privilege whatsoever.

This also brings into question the validity of epistemic privilege as an ontologically relevant criterion for rejecting entities as candidates for being genuine components of the world. It would be odd, to say the least, to accept as "genuine components of the world" de facto zones of cities based merely in differential income, religious beliefs, or occupation, while rejecting directly created zones (the products of local zoning decisions) on the basis of the latter's epistemic transparency to the creators.

It might be argued that that simply shows that the "no epistemic privilege" criterion is only a necessary, not a sufficient, condition for being accepted as a genuine component of the world. Why should it be necessary, however? Presumably, the thought is that epistemic privilege is always a symptom of mind-dependence, and that realists should reject any mind-dependent entities (whether or not we have any epistemic privilege regarding them). On this score, then, we would have as much reason to reject indirectly created opaque social facts as we do to reject social facts directly created by type or by token, simply in virtue of the fact that all depend for their existence on certain forms of intentionality.

But does the realist need to reject all mind-dependent entities? This, it seems to me, is a misunderstanding of realism. To distinguish realism from various forms of anti-realism and idealism, the realist clearly needs to accept that *there are some* things that exist and are as they are independently of all human intentional states. But there seems to be no reason to think that the realist cannot accept that, in addition to, say, the independent entities of the physical world, there are also mind-dependent entities in the social world studied by human geography and other social sciences. Both Searle and Michael Devitt, while defending general realist views, are happy to allow that there may (also) be mind-dependent social entities without this interfering with a general realist thesis. Thus, Devitt notes that "The world that the Realist is primarily interested in defending is independent of us except in one uninteresting respect. Tools and social entities are dependent on us …" (Devitt 1991: 249), while Searle describes realism as the view that if there had never been any representations, "Except for the little corner of the world that is constituted or affected by our representations, the world would still have existed and would have been exactly the same as it is now" (Searle 1995: 153).

Now it might be said that the realist can, perhaps, accept that there are facts of human geography (e.g., that this land is a national park) and objects of the geographic kinds involved (e.g., national parks), but that in virtue of their mind-dependence the realist must deny that they are part of the "furniture of the world". If this is taken

to mean that they are not among the mind-independent components of nature, this is fairly unobjectionable. For as we have seen, these things do involve forms of dependence on collective intentionality that (the realist must assume) those of nature lack. If, however, it is taken to mean that there aren't *really* such things in the world to be studied, it is quite objectionable and misleading. There are at least two senses in which one might be said to be a realist with regard to things of a particular kind: (1) The sense of accepting that things of that kind exist independently of all mental states; (2) The sense of accepting that there are things of that kind.

Accepting, then, that these things are mind-dependent in the various ways described in the section entitled "Varieties of Mind-Dependent Geographic Objects" above, should we accept that there nonetheless *are* such things, that they are genuine components of the world (albeit the human, not natural, world) regarding which we may acquire genuine knowledge?

As I have argued at length elsewhere (2015), the general question "Are there any entities of kind K" is best answered by determining what it would take for there to be such entities (what the actual application conditions are for the relevant sortal term "K"), and then evaluating whether anything meets those conditions. For purported entities of some kinds, mind-dependence might be a problem. If (according to the associated application conditions for "unicorn"), for there to be unicorns there would have to be instances of a mind-independent biological kind, and it turns out that the best we can say is that unicorns were creations of human myth, then we have grounds for denying that unicorns (using the term as a term for a mind-independent biological kind) exist.

By contrast, consider what it takes for there to be national parks. For there to be national parks, it is not required that there be some independently existing natural kind with an essence opaque to everyone. Instead, it is merely required that there be pieces of land designated as national parks by Congress and protected as such by government agencies. We might naturally suspect that those who understand the meaning and use of the term "national park" in the United States, but deny that there are such things, buy into a massive conspiracy theory according to which the supposed declarations and acts of government agencies are all illusions. Of course, philosophers who deny their existence will deny that they are subscribing to conspiracy theories, so what can we say of them? It seems they are either confusing the question of whether there are such things with the question of whether they form an independent natural kind (or are independent natural objects), or are tacitly recommending that (at least for "scientific purposes") we drop terms for such mind-dependent objects from our vocabulary. But the conditions ordinarily required for there to be national parks certainly seem to be fulfilled, and so we have reason to say that there are national parks in the only sense we should have ever expected there to be. Much the same goes for nations, electoral districts, commons, and other social and fiat entities apparently referred to in the theories of human geography. These are as genuine components of the world as one should expect of instances of human kinds, and as genuine as one needs to make the study and discoveries of human geography possible.

The conclusions here are of broader significance. First (as I argue in Thomasson 2003) the conclusions about epistemic opacity generalize to other social entities—in

ways that are important for understanding the social sciences and the possibilities of discovery and critique they bring. If we held that all social entities are epistemically transparent to us, then there would seem to be little room for discovery or critique in the social sciences. However, as I argue elsewhere (Thomasson 2003, 2009), acknowledging the different forms mind-dependence can take, and the different paths via which social entities of all types (not just geographic entities) may be created enables us to get a much more healthy and accurate picture of the prospects for discovery, and the potential role for critique in the social sciences at large.

Second, I have argued here that we should reject such criteria as mind-independence and lack of epistemic privilege as (across-the-board) criteria for existence. Instead, I have argued, if we want to know whether there are entities of a kind K, we should simply ask what it would take for there to be Ks—or what the application conditions for the term "K" are—and then evaluate whether anything meets those conditions. This is an approach I have argued for and developed more extensively elsewhere (Thomasson 2015), arguing that the method we should use in addressing existence conditions is to determine what application conditions are actually associated with the relevant term, and whether they are fulfilled. Once we take that path, we can also get a general argument that all substantive "criteria of existence"—including mind-independence and epistemic opacity—should be rejected (Thomasson 2015: Chap. 2). Instead, we must look at what it would take for there to be something of the kind, and whether those conditions are fulfilled. Failures of mind-independence may be a problem for some (purported) kinds of entities, but not others—where it is built into the very idea of a national park, dollar bill, or even fictional character that it depends in certain ways on human intentionality. I have also argued (Thomasson 2015) that we often can get "easy" arguments for the existence of disputed kinds of entity, from uncontroversial premises. We can get the same form of argument for geographic entities: I drive across the border between Vermont and New Hampshire every day to get to work, Vermont and New Hampshire are states, therefore there is a state boundary that I cross, therefore there are geographic entities.

Finally, as I have argued recently (Thomasson 2016), often metaphysical debates that appear worldly can be better analyzed as cases in which the disputants are implicitly engaged in what David Plunkett and Tim Sundell (2013) call "metalinguistic negotiation". Metalinguistic negotiations occur when speakers apparently use terms (rather than explicitly mentioning them) but do so not in order to share information about the world, but rather to press for changes in (or maintenance of) ways in which the relevant term is *to be used.* Accordingly, we can see some who argue that there are no geographic objects as implicitly suggesting that we remove terms for mind-dependent or epistemically nonopaque entities from our vocabulary—at least for purposes of doing serious philosophy or science. Yet once we put things in these terms, we can also see why this is a proposal we should reject. For these terms play an indispensable role in organizing our social and political lives together and establishing public norms for use of certain spaces. They also play an important part in our social-scientific theories. Rejecting them in favor of a linguistic and conceptual framework that only included terms of mind-independent entities or natural kinds would be a huge mistake.

The right response to examining the case of geographic entities and other social and cultural objects is not to reject them, or terms for them, nor to dismiss them all for failing to meet up to some criteria thought to be suitable for the entities studied by the natural sciences. Instead, we need to respect and appreciate the subtleties and variations among the entities we live with and study, and take a case-by-case look at the different ways in which entities may depend on human intentionality, and the diverse consequences this may have for our ways of knowing them.

Notes

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