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Conventionalism and the World as Bare Sense-Data

Crawford L. Elder

Abstract. We are confident of many of the judgements we make as to what sorts of alterations the members of nature's kinds can survive, and what sorts of events mark the ends of their existences. But is our confidence based on empirical observation of nature's kinds and their members? Conventionalists deny that we can learn empirically which properties are essential to the members of nature's kinds. Judgements of sameness in kind between members, and of numerical sameness of a member across time, merely project our conventions of individuation. Our confidence is warranted because apart from those conventions there are no phenomena of kind-sameness or of numerical sameness across time. There is just "stuff" displaying properties. This paper argues that conventionalists can assign no properties to the "stuff" beyond immediate phenomenal properties. Consequently they cannot explain how each of us comes to be able to wield "our conventions".

Conventionalism is a response to the apparent impossibility of learning *essential* or *necessary* characteristics of the objects of the world merely from empirical observation of those objects. This appearance is quite robust. It can make it seem as if the cases discussed by Kripke (1970) and Putnam (1975) show only that empirical findings sometimes enter into the exercises in convention-guided imagination that show what properties are essential to water, say, or to gold—but that the real evidence for essentialness lies precisely in what proves thus imaginable (Sidelle 1989, Chapters 2 and 3). I shall argue here that however impossible it may seem that we should secure empirical evidence of essentialness, the right response to this apparent impossibility simply cannot be conventionalism. For conventionalism depicts too much of the structure of the world as obtaining only relative to our conventions, and too little as obtaining mind-independently. It thereby provides no room for explanation of how it is that each of us individually applies those conventions in ways that largely match how others apply them, ways that yield largely the same story about the world as others affirm. Indeed conventionalism, I shall hold, makes it a mystery how each of us comes to wield our conventions in the

first place—how it can be that each of us either first acquires our conventions by cultural contact with others, or else wields our conventions as a consequence of hard-wiring in our brains.

Of course even if conventionalism does face these sorts of problems, one might think, it does not immediately follow that it simply cannot be the right response to our knowledge of essences. That would depend on just how clean the alternatives to conventionalism are. I have argued elsewhere that there is an alternative that is very clean indeed—that if one confronts with some persistence the appearance that we cannot learn of essences by merely empirical routes, one finds that the appearance simply dissipates, and that a realist answer is possible (Elder 2004, Chapter 2). But in this paper I will leave these cheerful tidings to the side.

I

Conventionalism is the view that the borders of nature's kinds, and the courses of existence traced out by individual members of those kinds, are functions of our conventions of individuation¹. Depending on the domain to which the kinds belong, our conventions may dictate that sameness in kind requires sameness in molecular structure or in atomic number or in the structure in which the molecules are joined together, and to this extent empirical research may be required to fill in the story on what the membership-conditions are for one natural kind or another. But *that* empirical research is required, and what *sorts* of recurrent traits it is required to identify, will be a function of the conventions or practices that govern our judgements of the form "same kind again", "different kind". The very phenomenon of sameness in kind obtains only in virtue of our conventions of individuation, according to conventionalism.

So too, *mutatis mutandis*, for the courses of existence that individual members (or samples) of nature's kinds trace out. Often we judge that the properties by virtue of which an individual object or sample belongs to its kind double as essential properties of that object or sample—as properties that that object or sample cannot lose without ceasing to exist. Thus we judge that if a uranium atom undergoes

fission, it exists no longer, and that if a sample of water is electrolyzed into a volume of hydrogen and a volume of oxygen, it too exists no longer. On other occasions we are prepared to judge that an individual can depart from the kind to which we say it belongs and yet go on existing: a tadpole *turns into* a frog, we say, and adolescents, we say, outlive their adolescence. Some philosophers reserve the term “*natural kind*” for kinds from which such departures are not possible. Even so the distinction between kinds that are *natural* in this sense, and those that are not, is for the conventionalist not fixed by nature but by our conventions. The very phenomenon of an object’s persisting across a span of time along a spatio-temporal path is a function of our conventions for making judgements of numerical identity (Sidelle 1989, pp. 50-57, 64-69). Just *what* is judged to be numerically identical will be different for conventionalists who favor endurantism from what it is for those who favor perdurantism: the former will hold that we judge numerically the same *object* to be wholly present, across a continuous path at different moments in its career, and the latter, that we judge distinct time-slices of that object to belong to numerically the same *four-dimensional history*. But in either case conventionalists will hold that the conventions that govern such judgements fix what it is for an individual object to persist over a spatio-temporal career. There is no phenomenon of numerical sameness across time, conventionalists maintain, except in relation to our conventions of individuation.

II

Conventionalism is a strong position, but a well-motivated one. The motivation for it is epistemological. We often have considerable confidence in the judgements we make as to which properties a given object of nature cannot lose without ceasing to exist—which properties are *essential* to that object, form its *persistence-conditions*. Thus we judge that if a tree is chopped up and passed through a wood chipper, it no longer exists; that if an ice cube melts, it is no more; and most of us judge that if a squirrel is killed, the squirrel no longer exists, even though its corpse is still there (*pace* Carter 1999). But there seem to be, as I shall illustrate, no empirical findings that could warrant confidence in these

judgements. Indeed these judgements seem not to be responses to what is empirically out there in the world at all, but projections of what is in us—projections of our customs or conventions for judging numerical identity across time, and perhaps of related customs or conventions for judging membership-conditions for nature's kinds. Yet we are *confident* of many such judgements—we assign them high epistemic value. Hence the topics of these judgements, the reasoning runs, must be matters of which our customs or conventions are constitutive (Rea 2002, Chapter 4). There must be no phenomenon of numerical sameness across time, for an individual object or sample, except as relative to our conventions for individuating objects or samples. And if this phenomenon of numerical sameness across time is connected (as most conventionalists maintain) with the phenomenon of membership in a natural kind, there must be no phenomenon of sameness in kind except as relative to our conventions for reidentifying, or distinguishing, kinds.

How after all *might* empirical observation inform our judgement as to what the persistence-conditions are for a given object, or for a given kind of object? The most simple-minded suggestion would be that we simply observe the individual object closely until we see that it has ceased to exist, and note what conditions accompanied the end of its existence. If our luck holds, we might find that the *same* sorts of conditions surround endings-of-existence for a large observed sample of objects that we are inclined to assign to a common kind, and might then hazard an inductive conclusion about persistence-conditions for the kind in general. What is simple-minded about this suggestion is that nature seems rarely to announce, unequivocally, that an existence has ended. Even the most violent event that might befall an object leaves something—some matter—behind. To judge that the object we *were* observing *no longer* exists, we must bring to bear some presupposed ideas about what it takes for *that* object—perhaps for an object *of that kind*—to go on existing. Our judgements of persistence-failures *presuppose* judgements of persistence-conditions, and thus seem poorly qualified to provide empirical support for the latter judgements.

A less simple-minded suggestion is that we seek first to observe, not individual persistence-failures, but properties that occur uniformly across the membership of the kinds into which nature's

objects appear to fall. If we manage to observe that certain properties occur in member after member of kind *K*, across even a very large sample, we can perhaps claim empirical warrant for the judgement that the occurrence of these properties in *K*s is no accident, and even that the possession of these properties is *what it is* for an object to belong to *K*. Then if we help ourselves to the assumption that a member of *K* cannot cease to be a member of *K* without ceasing to exist, we can claim empirical warrant for claims about the persistence-conditions of *K*s.

But the problems with this style of reasoning are numerous and easy to spot. First, concerning many of the kinds that our language suggests we recognize—kinds such a *lawyers* and *larvae*, *chairs* and *Californians*—there are probably few non-accidental uniformities, except in the properties by which we identify these kinds in the first place (Millikan 2000, Chapter 3). And it would be idle to claim *empirical* justification for the claim that lawyers all practice law, or that Californians all live in California: these uniformities are artifacts of the conventions by which we individuate the kind in question, the conventions by which we count an individual as belonging in the relevant sample in the first place. Then too—and relatedly—for many of the kinds that our language suggests we recognize, we *cannot* help ourselves to the assumption that a member of that kind cannot depart from the kind without ceasing to exist. Lawyers can become artists, larvae metamorphose, and any Californian can become a Michigander.

But prospects are better with kinds of the sort that loom large in the writings of Kripke and Putnam—kinds united by properties that empirical research must fill in. Contemporary conventionalists will allow that our conventions for individuating chemical kinds tell us only that all samples of a given chemical kind are united by having *some* one molecular structure *or other*, and that only empirical research can tell us *which* microstructure is common to, say, all samples of water. Likewise our conventions for individuating physical elements, conventionalists allow, determine only that all atoms of any one element have *some* atomic number in common. Perhaps our conventions for individuating biological species determine that there must be *some* genomic feature in common; perhaps even our conventions for identifying diseases require some microphysical commonality among all instances of a given disease. And kinds thus united by “deep-lying” features, that only empirical research can fill in,

often turn out to be non-accidentally characterized by a number of uniformities. Such kinds are “inductively rich”. They even seem to warrant Mill’s idea that natural kinds afford *limitlessly many* inductive characterizations (Mill 1973, p. 122).

But even here the would-be empiricist about essential properties faces a problem. Just what is the warrant for supposing that kinds that are “inductively rich” are truly *natural* kinds in the sense indicated earlier—kinds such that a member (or sample) of that kind cannot cease to belong to the kind without ceasing to exist (Rea 2002, pp. 132-34)? Even if something violent happens to a member of such a kind, after all, *something*—some matter—still is there. If a sample of water is subjected to electrolysis, some hydrogen and some oxygen is still there; if a uranium atom undergoes fission, some microparticles still are there. *Any* alteration that a material object undergoes will leave some stuff, perhaps some simples, still existing. Then what if some philosopher claimed that what *looks like* the destruction of some member (or sample) of a natural kind is really just a matter of this continuing stuff’s passing into a new phase of its existence? About the worst thing that can be said about such a suggestion, the conventionalist will say, is that it violates our existing conventions for tracing “numerically the same” object (or objects) across time. The philosopher who makes such a suggestion cannot, conventionalists will say, be accused of making any *empirical* mistake (cf. Sidelle 1989, pp. 105-111). But then the judgement that something *has* gone out of existence, when a sample of water is hydrolyzed or an atom of uranium undergoes fission, cannot claim to be empirically grounded. We may well be confident that it is a *correct* judgement. But that can be so only because, the conventionalist will claim, the phenomenon about which we are judging—numerical sameness of an object across time—is one that obtains only relative to our conventions of individuation.

Having set forth the motivation for the view I am calling “conventionalism”, let me return, before closing this section, to the topic of just what this view *says*, and how this view fits in the larger philosophical landscape. Centrally, the view I call “conventionalism” is the thesis that sameness in kind, and sameness across time on the part of an individual member of a kind, obtain only in virtue of our conventions of individuation—that apart from us, mind-independently, there simply are no such

samenesses. To call this view “conventionalism”—as its proponents typically do (Sidelle, Thomasson)—*suggests* that we could have adopted *different* conventions of individuation, but I shall not take that claim to be defintory of the view. To be sure, if the conventionalist *denies* that we could have adopted different conventions of individuation, she owes us an explanation of *why* not: the worry would be that kind-samenesses or numerical samenesses in the world that we confront, before even arriving at our conventions, force upon us our actual conventions and not others. But I will not pursue this matter here. Similarly, to speak of our *conventions* of individuation *suggests* that our ways of individuating kinds and individuals are instilled in us by culture or custom, rather than by physiology. But I shall not consider either answer to be defintory of the view I call “conventionalism”: I shall consider how well conventionalism stands up to my objections if it offers either answer.

I call the view I am opposing “conventionalism” because no more familiar label is available. Certainly conventionalism is not to be equated with nominalism: Sidelle (1989, pp. 55n, 57; 1998, pp. 442-44) speaks as if he is a realist about properties, and Jubien (1993, p. 7) is explicit in his property-realism. Perhaps conventionalists *could* opt for trope-nominalism, but I shall not examine the question here. A more promising suggestion is that conventionalism is simply equivalent to the denial of realism about natural kinds. But even this would-be synonymy faces problems. For one thing, Thomasson, who endorses “conventionalism” in exactly my central sense, maintains that she holds a *realist* position on kind-membership, and departs from realism only on the topic of kind-membership *conditions* (Thomasson forthcoming, Ch. 3 and Ch. 10; cf. Sidelle 1992, p. 286). Her reasoning is that since our conventions themselves typically require us to *learn from empirical research* what the essential properties are, that characterize the kinds within various domains—and since they certainly require us to *learn from empirical research* just where those essential properties are and are not jointly instantiated—the conventionalist can rightly say that it is *the world* that determines the borders of nature’s kinds. What is up to us is just *that* these kinds *are natural kinds*, and not mere classes. Elsewhere I have objected that Thomasson’s view does not deserve to be called a “realist” view in any of its aspects—but the matter is too complex to be considered here (Elder 2006). For present purposes, the safest course is just to let the

label “conventionalism” stand by itself. That is, conventionalism, we should say, is a distinct philosophical thesis in its own right.

III

Conventionalists have real reason, we have seen, to hold that the borders of the world’s kinds, and the persistences across time traced out by members of those kinds, obtain only relative to our conventions of individuation. Then what is the material world like independently of our conventions? It is an array of matter or “stuff”, conventionalists say, that presents a variety of properties in various locations (Sidelle 1989, pp. 55n, 57; Sidelle 1998, pp. 441-44; Jubien 1993). Our conventions may be said—if one permits mildly metaphorical expression—to carve this array into objects and kinds. Now despite the familiarity of the metaphor of “carving”, this way of putting the view does immediately raise a question. Must we, in order to wield our conventions of individuation, first (and independently) amount to objects that belong to a common kind—must we be individual organisms belonging to the species *Homo sapiens*? In section IV I shall return to this sort of question. In particular, I shall argue that conventionalists cannot consistently say that our wielding of our conventions is determined by the nature of our brains. But for now I shall leave the metaphor unquestioned. We are there; we wield our conventions; and in consequence of our doing so, there obtain in the world kinds, and members of those kinds that trace out determinate existences.

The question on which I now want to focus is this: what *sorts* of properties obtain out there in the array of stuff, independently of our conventions—to what sorts of properties does our “carving” respond? This question is never addressed by conventionalists, and is more subtle than at first it appears. Velocities, for example, cannot be said to obtain in the world as it is independently of our conventions. For what it is for a thing to have a certain velocity is for that very thing to persist across a certain span of time, occupying progressively different locations at successive moments. Yet according to conventionalism *there is* no phenomenon of numerical sameness across time, except as relativized to our

conventions. In the world as it exists independently of our conventions, then, there no entities qualified to be bearers of velocities (cf. Lowe 2003, p. 707).

What of shape and size? What it is for a thing to be square, for example, is for that very thing to extend all the way up to four equally long edges; for a thing to be cubical is for it to extend all the way up to each of six equal square faces. Can conventionalists consistently say that there is, in the world as it exists independently of our conventions, numerical sameness *across space*—such a phenomenon as *the* same object's occupying all the points in a given region? Or must they say that numerical sameness across space, like numerical sameness across time, is an artifact of our conventions? If they say the latter, they may have to admit that there are, in the world as it is independently of our conventions, no instances of determinate shapes or of sizes or even of masses. The variegated play of properties, that our “carving” of the world confronts, may not be particularly variegated after all—there just may not be many properties out there.

That is roughly the position for which I argue in the present section. More precisely, I argue that numerical identities across space *such as we generally recognize* cannot be held, by the conventionalist, to have convention-independent status. When *do* we take it that numerically the same object is found across a certain volume of space—in other words, that some one material object wholly occupies, and does not extend beyond, some volume? There is probably no one simple answer as to what evidence elicits such a judgement from us. But it has been argued that in the central case, we make such a judgement when we suppose that the matter throughout such a volume forms a maximal, cohesive, separately moveable whole (Grandy, forthcoming; Spelke, 1990, 1994; Hirsch 1982, pp. 105-112)². We must suppose, that is, that if ordinary forces are applied at any point to the matter in the volume, all of that matter will move “as a piece”, and no other matter will move along with that matter, and the outcome will be an altered position or orientation of that matter relative to its surroundings.

Might the conventionalist hold that in these cases, at least, the conventions that guide our judgements of numerical sameness across space may *correspond to* numerical samenesses across space that are *convention-independent*? The idea that the two axes of numerical sameness, for material

objects—sameness across space, and sameness across time—may *differ* in their dependence on our conventions actually has some intuitive appeal, though not specifically from a conventionalist standpoint. Intuitively, it can seem that though we do judge that *the* same living creature still continues to exist, when a tadpole “turns into” a frog, or a moth gives place to a butterfly, there is something seriously underdetermined, empirically, about such a judgement. Likewise, it can seem that there is something seriously underdetermined about the judgement that something *ceases* to exist when an ice cube melts or an apple is turned into apple-sauce. In contrast, it can seem that, when I find myself in a room that is empty except for the three chairs I see in front of me, it is just palpably obvious that there are in that room (besides myself) three separate objects, not more and not less. It seems palpably obvious that the left half and the right half of the middle chair are not separate objects, and likewise that the middle chair and the one to its left are not the same object. The rule that guides this robust judgement appears to be the very one identified above. Might one not at least be tempted to claim that there is convention-independent sameness across space, for material objects at any given time, and that the way we correctly judge where it obtains is by seeing where there are maximally cohesive, separately moveable chunks of matter?

But for the conventionalist, such a position is off limits. For the conventionalist, *there is no phenomenon* of numerical sameness across time, for material things, except as relative to our conventions. Hence in the world as it is independently of our conventions, there is no such phenomenon as a chunk of matter’s moving—and in particular, no such phenomenon as *the* same cohesive mass’s occupying, at a later time, a different position from the one *it* occupied at an earlier time. But if there is no such phenomenon as a cohesive mass’s moving, there is no such phenomenon as its being separately moveable—nor as its being “cohesive” in the relevant sense.

On the other hand, it seems that our judgements that some one object occupies all of a given volume of space, and does not extend beyond it, are not *always* motivated by considerations of separate moveability. Sometimes what we judge to be one object seems just too big and massive to be moved, or else seems too firmly embedded in surrounding matter to be moved separately. In these cases the judgement that some one object occupies all of a volume, and does not overlap it, seems guided instead

by qualitative homogeneity within that volume, homogeneity that ends at the volume's borders, and thus sets up "border contrast" with what lies beyond (Hirsch 1982, pp. 105-112) . Might the conventionalist claim that judgements like *these* manage to limit objective numerical samenesses-across-space, numerical samenesses that obtain independently of our conventions?

If she is to take this line, the conventionalist must be careful about the *sorts* of properties, with respect to which the matter in such a volume is homogeneous. She wants qualitative homogeneity across a stretch of space to *ground* convention-independent facts as to how far out the borders of some one object extend. So she cannot speak of homogeneities with respect to properties that *presuppose* where those borders lie—properties such as shape, say, or size, or total mass. (A good label for the properties that are off limits is "border-sensitive properties".) Moreover, she needs properties that will unite all the sub-regions within the volume that some "one object" will turn out to occupy, and consequently she needs properties that can be instantiated by parts of the object at the same time as they are instantiated by the object as a whole. (A good label for the properties she needs is "border-insensitive properties").

This might seem to suggest that the conventionalist should focus on the border-insensitive properties that characterize nature's specific stuffs and matters, such as water or gold—properties such as viscosity and density and index of refraction and melting point. But this suggestion cannot long be pursued. If there is no phenomenon of numerical sameness across time, for material objects, independently of our conventions—including here numerical sameness across time for parcels of specific matters—there can be no such convention-independent phenomenon as *the very same* parcel's being now in a liquid state, as was *earlier* in a solid state. So there can be no such property as a parcel's melting point. There can be no such phenomenon as *the very parcel's* having spread out widely, upon being poured on a flat surface, as was *earlier* contained in a beaker—nor such a phenomenon as *that very parcel's* having held together in a compact mass. So there can be no such property as a parcel's viscosity. In short, the conventionalist cannot afford to recognize *dispositional* properties as present in regions of the stuff of the world, as it exists independently of our conventions. To put the matter generally: for the conventionalist, there is no such phenomenon, in the world as it exists independently of our conventions,

as numerically the same object's (or parcel's) persisting across a span of time. The manifestation of any disposition that an object might have requires that that object persist across a span of time. So in the world as it is convention-independently, there can be no such phenomenon as the manifestation of a disposition. So there can be no such properties as dispositions.

But there is a different way for the conventionalist to implement that idea that there is numerical sameness across space just where there is a maximal qualitatively homogeneous stretch of the "stuff" of the world. The conventionalist can say that the homogeneities that count are homogeneities with respect to phenomenal properties—properties such as *looking red* or *smelling like lavender* or *feeling smooth*. For these properties seem to involve no dispositional component—at least, not if they are indexed to the present moment ("*looks red now*"). In this respect *looking red (now)* may be different from *objective redness*, from *being red*. For provided there is the latter property, phenomenal redness is at best imperfect evidence for its presence: an object can look red without being red, and can be red without looking it. The reason for the mismatch is that the "objective" perceptual properties (if there are any) do involve a dispositional element. An object's being red entails, roughly, that it would look red if viewed under "normal circumstances" for sight. But so long as the conventionalist sticks to immediate phenomenal properties, he can consistently claim that such properties are out there in the world as it is convention-independently.

To be sure, this recipe for allowing the conventionalist to claim that there is sameness across space that is truly convention-independent requires that we exercise charity. It faces a familiar obstacle. The same sample of liquid can, for me, have the immediate phenomenal property *tastes sour (now)*, and for you the immediate phenomenal property *tastes sweet (now)*. If the lighting is strange, one and the same object can have *looks red* for me, and for you—viewing it from a different angle—have *looks maroon*. The usual response is to say that these immediate phenomenal properties are more nearly "in us", than out there in the object. What is "out there", homogeneously across the entire volume of the sample of liquid, is a disposition to produce in me a token of *tastes sour*—a disposition that stems from some categorical property "out there", that likewise extends homogeneously across the volume of the

liquid, together with the state of my sense organs. But this sort of thinking is off limits for the conventionalist. For one thing, our sense organs are persisting objects—each is numerically the same across an episode of sensory stimulation—and hence for the conventionalist they cannot have convention-independent existence; so a spatially homogeneous disposition to affect my sense organs in a certain way cannot amount to a sameness-across-space that is convention-independent. For another, the very thing that has a categorical property that *grounds* a disposition must be capable of surviving from a “before” phase to an “after” phase: from a phase in which trigger of the disposition only starts to occur, to a phase in which the disposition is realized. Yet for the conventionalist, there is no convention-independent phenomenon of numerical sameness across time; so homogeneous sameness across space, with respect to the categorical grounding property, likewise cannot be convention-independent. The charitable course is to side-step these familiar reflections altogether. We must let the conventionalist focus on immediate phenomenal properties, that spread uniformly across a region, for any and every observer. Or, alternatively, we must let the conventionalist simply forget that there are other observers taking in the immediate phenomenal properties that the world presents. (Shortly I will point out that the conventionalist is hard pressed to say how we even manage to think of there being other sensory observers—more precisely, other people—in the world at all.)

Proceeding in this charitable way, then, let us ask: might the conventionalist claim that there is *convention-independent* numerical sameness across space just where there is maximal homogeneity with respect to immediate phenomenal properties? The claim, more precisely, would be that a single (momentary) object wholly occupies, and is wholly contained within, a certain volume of space if and only if that volume is wholly filled with world-stuff that forms a maximal phenomenally homogeneous mass—and that this equivalence holds independently of our conventions.

Whether or not a conventionalist could provide *motivation* for such a position, it does seem to be one that he could *consistently* hold. But the position would yield numerical samenesses-across-space that, for the most part, are nothing like those we ordinarily believe in. In general, phenomenal homogeneity across a region of the world is neither necessary nor sufficient for us to judge that within that region there

is one and only one material object. We readily judge that a single spotted dog, or a single red-wing blackbird, wholly occupies and is wholly contained within a given region of the world. And if two phenomenally-ochre square floor tiles were moved so closely together that there were no phenomenal border between them, we would *not* judge that numerically the same object extends across the entire oblong expanse that presents unbroken phenomenal ochre.

IV

The world as it exists independently of our conventions, according to conventionalism, is an array of matter that possesses, at any time, different properties in different locations. But we now have seen that the range of these properties must, for the conventionalist, be severely constricted. It is pretty well confined to phenomenal properties: in one location the world-stuff looks red, in another it looks blue, in one it smells like lavender, in another (or perhaps the same) it feels smooth, etc. There are indeed shape-properties and size-properties in the world. But they characterize only patches of color, and stretches of smell, and extents of tactile “feels”. The convention-independent world is very, very close to the world in which the old sense-datum theorists believed.

The conventionalist is perfectly free to say that the world that each of us confronts in experience *seems* nothing like this barren array of sense-data. He can say that each of us employs our conventions of individuation so unhesitatingly, so much in the manner of an unwitting reflex, that the world we encounter in experience *seems* from the outset, and quite objectively, to be populated by persisting objects that belong to natural kinds. Still, he must say that in this seeming, this appearance, there is an element of illusion. Really, on the conventionalist’s view, there obtain in the world persisting material objects, having persistence-conditions and belonging to natural kinds, only *in virtue of* our exercising our actual conventions of individuation. It is this exercise that generates the appearance that a world thus structured is there already, independently of our cognitive practices. But *your* exercise of these conventions can hardly generate that appearance for *me*; I must *on my own* apply our conventions, in order (unwittingly) to

bring it about that the world I experience appears to me to be populated, quite independently of my cognitive activity, with persisting objects that belong to kinds. So what *causes me* to exercise these conventions, in the particular way that leads me to believe in the particular array of persisting, kind-belonging objects that I do believe in, must be a world as yet unstructured by anyone's exercise of our conventions of individuation. It must be a world of mere patches of phenomenal properties. This is the world that each of us *causally* confronts in his or her experience of the world, even though it is not the world that any of us *consciously* confronts.

But now we are met with a puzzle. Before I can exercise our conventions of individuation, and manage to see before me an array of persisting objects, it seems I must first *acquire* and *internalize* our conventions of individuation. How can I manage to do this, if before acquiring them I am confronted with only an array of phenomenal patches? But let us not give up on the puzzle prematurely. Let us consider carefully the two answers that a conventionalist would find it natural to offer. The first answer: I acquire our conventions at my mother's knee, and through conversation and interaction with other people, other members of "us". The second answer: there is no such event or process as my *acquiring* our conventions of individuation; rather, they (or at least a crucial subset of them) are hard-wired into my brain, and are with me from the very outset of my experience of the world.

It does not take long to find problems with either answer. Let us begin with the first one. In order for me to acquire our conventions of individuation from conversations with others, I must first, before acquiring those conventions, take myself to be confronted with human bodies, making bodily gestures, and making utterances with their voices. But any human body (i) is numerically identical over a span of time—at least long enough to complete a bodily gesture, and in fact far longer than that. Any human body (ii) has persistence conditions. Human bodies (iii) belong to a common natural kind. Yet the phenomena identified in (i) – (iii) do not obtain in the world, according to the conventionalist, except in virtue of our exercising our conventions of individuation. And *your* exercising these conventions won't help *me*, as we have noted; I must *on my own* exercise our conventions of individuation, if I am to take myself to be confronted with persisting objects, having persistence conditions and belonging to

natural kinds. So, in particular, I must on my own exercise our conventions of individuation, if I am to take there to be human bodies before me. But if I must acquire our conventions before I can exercise them, I must acquire them *before* I can have (what count for me as) conversations with others. So it can't be *from* conversations with others that I acquire them.

This problem may not be insuperable. Perhaps the conventionalist could say that even before acquiring *our* conventions of individuation, each of us wields *his own practices* for individuating objects and kinds. We apply these in the manner of an unwitting reflex, and in consequence of applying them our early conversations with others—in particular, the lessons we receive at our mother's knee—count for us as more than just a blur of shifting phenomenal patches. It is in consequence of my applying my own youthful practices of individuation, then, that I take myself in these lessons to be confronted with numerically the same object (viz. the same mother) persisting over the course of the lesson, an object the same in kind as my uncles and cousins. But this response raises further puzzles of its own. What ensures that I will not employ aberrant practices of individuation—that I will not assemble, from the blur of phenomenal patches that causally confronts me, a Guernica-like hodge-podge of discontinuous body parts? Why won't I take "my mother" to be a unitary but spatially discontinuous object—why won't I join her face with the pendulum on the grandfather clock, and take the pendulum's back-and-forth movements to be an admonitory finger-wagging?

The safer answer may be the second one: none of us ever *acquires* our conventions of individuation; those conventions are wired into our brains, perhaps by natural selection, and are with us from birth. But there is a problem with this suggestion as well. The problem, to put it quickly at first, is that a conventionalist must regard our brains themselves as being part of what Sellars (1963) called "the manifest image". That is, human brains, if they exist in the world at all, (i) persist over time, (ii) have persistence conditions, and (iii) belong to a common natural kind. But for the conventionalist, there is in the world no such phenomenon as a material object's persisting over time, or as an object's belonging to a natural kind, except *in virtue of* our exercising our conventions of individuation. So what *causes* our exercise of our conventions of individuation cannot be our brains, or our brains' being wired in a certain

way. Our exercise of our conventions of individuation must be *metaphysically prior*, on the conventionalist view, to the existence in the world of human brains (Elder 2004, Chapter 1; Elder 2006, pp. 9-10).

But this quick way of putting the problem invites a reply from the conventionalist. Perhaps brains qualify *as brains*—in particular, *as* objects that persist across certain sorts of changes and that cease to exist given other sorts of changes—only relative to our conventions. Even so, the reply would run, the stuff out there onto which we project these temporal careers has mind-independent existence, and has at least some properties of its own. Why—the reply continues—might not these properties be sufficient to explain that we exercise the same conventions of individuation as one another, the ones we call “our conventions of individuation”? But the weakness in this reply emerges as soon as we ask just *which* properties would be doing the explaining. It is unsurprising that you and I exercise the same conventions of individuation, the reply is saying, because the mind-independent stuff that qualifies as *my brain*, relative to our conventions, and the mind-independent stuff that qualifies as *your brain*, relative to the same conventions, are alike in certain properties. Do these properties concern the configuration and character of parts of the brain such as the frontal cortex and the hippocampus—or the sorts of coding that are installed in our respective neurons? But neurons, cortexes, and hippocampuses are all persisting objects. *They* have no standing in the world-stuff as it exists independently of our conventions, and hence no place in the story of how the world-stuff causes the presence in us of our conventions. Neither, in consequence, do their characteristic configurations or characters or codings. Beyond that, even if we somehow regard neurons, cortexes, and hippocampuses as merely momentary objects, they will not have sameness-across-space with respect to the right sorts of boundary-insensitive properties: none of these units of the brain is marked out by a distinctive color, say, or a distinctive smell. Nor will it help this reply to retreat to speaking, in general terms, of a common history of natural selection. The story of natural selection is shot through with talk of the persistence across time of individual objects. The story tells of how certain individual members of a species survive *longer* than others, and manage *across their lifetimes* to reproduce more rapidly than those others. It talks of how the traits of those fitter members are

found more and more widely across the population of numerically distinct descendent members of the species—and bound up in the very idea of a *descendent* is the idea that it is meaningful, but false, to say that that member of the species existed at early times in the *lifespan* of its progenitors. Yet conventionalists hold that in the world as it is independently of our conventions, there simply *is* no phenomenon of sameness across time of an individual member of a kind. So in the world as it exists apart from our conventions, there is no phenomenon of natural selection. In consequence, in this mind-independent world, there is nothing that can explain the particular samenesses between you and me that our shared history of natural selection is said to explain.

V

If conventionalists allowed more structure in the world as it exists mind-independently, they could maintain that upon exposure to the sorts of enduring objects that we encounter in experience, our brains, honed by a long history of natural selection, would just naturally lead us to make most of the judgements of numerical sameness that in fact we do make—judgements as to numerical sameness across space and numerical sameness across time. We would just naturally think of maximally cohesive separately moveable masses as unitary objects, conventionalists could say, and we would expect them to trace out spatio-temporally continuous careers. Then we would be in a position to recognize other humans as unitary objects in their own right, to converse with them, and to learn the finer points of “our” conventions of individuation. But in fact conventionalists allow almost no structure in the world as it exists mind-independently. They cannot claim that the sorts of objects we see persisting before us, and the sorts of brains we have, cause us to exercise the schemes of individuation that we do exercise. How each of us will assemble the phenomenal patches, that are all that populates the mind-independent world, into persisting objects—indeed *whether* we will assemble persisting objects—is left utterly undetermined. Each of us might gain focus in his individuating practices by acquiring “our” conventions of

individuation, but so great is our latitude in constructing objects that it seems only by magic that we would reliably take ourselves to be confronted with other human bodies.

Footnotes

¹ The most careful presentations of the conventionalist position, in my opinion, are Sidelle 1989, Sidelle 1998, and Thomasson forthcoming. But the most influential endorsement of conventionalism is probably Hilary Putnam's attack on "Self-Identifying Objects" (Putnam 1981, Ch. 3), or on "ready-made objects" (Putnam 1982). Another widely-read endorsement of conventionalism is Jubien 1993.

² See also Grandy, "Soft Borders, Bright Colors: the Cognition and Metaphysics of Everyday Objects," www.ruf.rice.edu/~rgrandy/Project.pdf.

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