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ON BOYD

Boyd's "essay" (as he rightly designates it) develops many realist themes. I take up the three that bear on my work. I welcome his theory of clusters, and contrast it with the idea of family resemblances. I query his history. I resist the incursion of natural kinds into human kinds.

1. CLUSTERS AND FAMILY RESEMBLANCE

I warmly welcome Boyd's theory of homeostatic property clusters, sketched on pages 15—18 of his reference (1989). It is the best recent contribution to the doctrine of natural kinds. Had it been in print when I wrote or even revised my paper, I would have noted how much it would have pleased Russell and most other writers in my tradition. Russell said cheerfully that natural kinds are like topological neighbourhoods. Boyd's homeostatic property clusters are a natural explanation of this idea. It has many merits for which Russell and Mill did not even grasp. Arguably it provides Mill with a defense against Peirce's most salient criticism, and allows Mill to retain the idea of "real Kinds" with an almost inexhaustible number of properties that do not intrinsically follow one from the other. It also fits readily into many related approaches, for example, the "resemblance" version of the doctrine (which I do not admire) best stated by H. H. Price. It enables us to overcome Goodman's problem of imperfect community that usually besets resemblance accounts.

Boyd notes above and in (1989) that names for biological species have been prime candidates for natural kind terms. They are his favoured examples in illustrating and vindicating his theory of homeostatic property clusters. That is why his important contribution is irrelevant to family resemblances. He wrongly regards "property cluster term" and "family resemblance word" as meaning much the same.

"Family resemblance" has quite other connotations, with Wittgenstein setting the pace. Wittgenstein was deliberately opposing family resemblance nouns to nouns that name, for example, biological species. In his (1989) Boyd takes some pleasure in refuting unnamed "ordinary language philosophers" who take the characteristics of cluster terms to be conceptual rather than causal. Let us be clear that whoever those people were, Wittgenstein was not among them.

I supplemented Wittgenstein, perhaps mistakenly, by suggesting a connection between family resemblance and social kinds. Boyd exacerbates any error by quoting me out of context, as saying that such "kinds are constructed along the lines of family resemblance, and what puts things in to a family is not nature but people in concert." That sentence was one of two theses (a) and (b) that I mentioned but did not assert on p. 116. I attributed them, a little maliciously, to George Lakoff. Later, what I myself said was,

I conjecture that a great many family resemblance nouns collect the objects to which they apply in a "non-natural way" — this is, they rely on social factors and may properly be called social kinds (p. 123).

Thus I must insist on (i) my words "conjecture" and "a great many", and (ii) on the fact that Boyd's property cluster terms are not what Wittgenstein meant by family resemblance nouns. Since I also hold that there are many different types of family resemblances, I can have no serious objection to including Boyd's clusters in the extended family of family resemblances, once one sees (on another occasion) how extended and diverse that family is. If we did include Boyd's clusters then, platitudinously, my "a great many" above would still remain correct.

2. WHEN DID THE TRADITION BEGIN?

Boyd's "only slightly anachronistic" strategy is to move the tradition of natural kinds back to Locke, to identify an intrinsic tension between Enlightenment nominalism and predicting the future, and then to trace the evolution of this difficulty into the present through a quick survey of verificationist philosophy, finally concluding that only a sturdy realism about natural kinds will save the day. Unfortunately I don't recognize much in Boyd's reconstructed history, which mentions only

one figure in my tradition, and which describes recent philosophy in a way that is unfamiliar to me.

This is not the occasion for an historiographic sermon, especially as I provided no history in my paper. I must say that Locke is not part of the tradition of natural kinds. It is true of course that with any of the enduring themes in Western thought — unity, atomism, continuity, substance, universals or what have you — we can reach back as far as we like to find precursors. The tradition of natural kinds has simulacra in Locke, in Buridan, in Aristotle, in Heraclitus. But the tradition itself, with the concerns with induction that I noted, and its conception of kinds as causal or historical entities, could not have come into being before about 1800, and is a minor element in a very major redistribution of ideas. One item in that larger redistribution that helped trigger the concern for kinds is the transformation of natural history into biology (a word invented about 1801 for a new type of knowledge). Locke lived in an epoch when representation was king, and when a classification was intended to represent in a table the surface and still features of form or function of a preserved exemplar. It was ideas (a concept almost inaccessible to us) that were the workmanship of the understanding, not kinds. The question was always, does an idea represent its object? It was Locke's view that there was nothing in the objects from which we formed general ideas that could determine the boundaries between ideas, so that those boundaries had to be the workmanship of the understanding. "I would not here be thought to forget" — so he begins the "workmanship of the understanding" passage — "much less to deny, that Nature, in the production of things, makes several of them alike: there is nothing more obvious . . .". There were resemblances in Nature, but no manifest boundaries from which the ideas in the understanding might be formed and which they could represent. Michael Ayers has an excellent account of some of the reasons why Locke was so obsessed with boundaries, and his account can be augmented.[1] This problematic has no connection with the tradition of natural kinds. None of my authors alludes to Locke. Mill introduced, and the tradition continued to use, a new word, "kind", for a new discussion. None of my authors was interested in boundaries between kinds. Boyd betrays a misapprehension here. In his first paragraph he writes that in the tradition, a kind is "(at least on a certain

idealization) defined by a set of necessary and sufficient properties (relations etc.) ...". I did not mention NASC nor did any of my authors, in this connection. (Perhaps he was surprised that I, and those for whom I speak, welcome his cluster concept so warmly: we welcome it because we never cared a fig for NASC). We would have to embark on some history to show why the doctrine of natural kinds commenced when it did, but that it began in the early part of the nineteenth century is incontrovertible. Thus would I evade Boyd's stratagem of linking hands with Locke.

3. SOCIAL CONSTRUCTION

Boyd's concluding remarks address a number of views that Boyd may believe me to hold but which are not stated in my paper. I mentioned social kinds and human kinds, as relevant kinds that interest me. In the paper I ventured no analysis. Since Boyd criticizes views about social kinds that he thinks I hold, I must now very briefly turn to that topic.

First, I find repugnant Boyd's suggestion that such kinds are "inscrutable", a word he uses repeatedly, as often as four times to a paragraph. I read with astonishment about "Hacking's insistence that the adoption of definitions for social kinds has a real but inscrutable influence on the properties of the social objects under study." I have never insisted on any such thing. I have never spoken of real but inscrutable influences. I have almost never considered "definitions" for social kinds, definition seldom being a pertinent concept in this area.

Far from muttering about inscrutability I painstakingly scrutinize some kinds of people and their behaviour — "multiple personalities", "child abuse", even the metaconcept of "normalcy". Many such kinds are close to some moral kinds, and are immensely influential in day to day moral reasoning. Boyd imagines that I am into "social construction." In fact I do not hold such kinds to be (socially) constructed in any careful sense of that phrase. I resist terms like "social construction" because their very latinism reeks of false science. I prefer plain English metaphors such as "making up people", and I do think that there are senses in which many of our traits of character and types of action are made up.[2] That is to say, in part, that the histories of human kinds are quite different from those of natural kinds, for as some classifications

are formed and moulded they loop back, interact with, and alter the individuals and the types of behaviour to which they apply. At a deeper level, they help determine the very space of possibility of action. This is hardly surprising if all actions are actions under a description, and descriptions interact with agents. They affect not only who I am but also my projects, the kind of person that I might hope to be, to value, to trust or to love. Yet as we change to fit the kinds, so we change the kinds to better sort those who fall under them because the individuals — often ourselves — change in the light of being described. There is nothing "inscrutable" about this, although careful scrutiny is very demanding.

Boyd understands some of this idea, although it is not in my paper, and holds that "the influence of classificatory practices on causal struc- ture always supervenes on ordinary causal mechanisms." Supervenes on ordinary causal mechanisms! Does that have any meaning at all? Boyd takes "fish fork" to be purely conventional, but I assume that the interaction of the classification "fish fork" with the dining practices of the elite and the makers of expensive silverware "supervenes on ordinary causal mechanisms" — if the phrase has any meaning. So I would not be one to deny (if it made sense) that classificatory practices have this happy knack of supervening. But so what?

It is precisely such abstract talk that my own studies of human kinds try to escape — and which we can escape if we stop blindly following the pattern of natural kinds. Boyd writes that "barring a successful defense of social constructivism, the project of extending the theory of natural kinds to historical kinds is secure." That is exactly the move that I resent. To repeat a sentence from the last paragraph of my paper, "Those of us who care about other relevant kinds need not be bullied into saying that they are, or are not, just like natural kinds." I need not mount "a successful defense of social constructivism" to block Boyd's "project". Me? Should a notorious (experimental) scientific realist about the unobserved entities used in most of the natural sciences mount such a defense? In my paper I urged that there are many modest but excellent insights in the great tradition of natural kinds — hoping then to move on to other relevant kinds, without being accused of mindless all-purpose constructivism. What is interesting about some other relevant kinds is understanding how they work on us and how we work

on them to form the very possibilities that are open to us as people. Many human kinds have powers unknown to natural kinds. They are instruments and agents of power and knowledge, but also of caring and of stewardship. Some wrongly think we can escape their force into some glorious freedom to be ourselves, but in fact they are our essential partners, without which we are mere flesh and nerve.

Thus I think that the role of human kinds in our lives, and in the human and social sciences too, has little to do with those spectator sports so admired in some theories of natural kinds, namely induction and explanation. And returning from human to natural kinds, it will be noticed in my paper that it was not inducing and explaining that seemed to me the hallmark of natural kinds, but rather doing and using, melting and breeding, mining and cultivating. That vision is more reminiscent, for those who would reminisce, of Aristotle than of Locke.

NOTES

[1] Michael S. Ayers, "Locke versus Aristotle on Natural Kinds," *The Journal of Philosophy* **78** (1981), 247—272.
[2] The programmatic statement, with some examples, is Ian Hacking, "Making up people", in T. C. Heller et al. (eds.), *Reconstructing Individualism: Autonomy, Individuality and the Self in Western Thought*, Stanford: Stanford University Press, 1986, 222—36.

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