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natural assumptions: race, essence, and taxonomies of human kinds

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Everyday life would be unmanageable if we were not able to filter our attention away from the superfluous and toward the relevant. Categories do much of this work. Imagine how difficult it would be to find someone to fix a leaky sink if we weren't able to create the notion "plumber." "Plumber" is mentally representable not simply in virtue of our capacity to create categories but also in virtue of our capacity to embed categories into larger knowledge structures, such as taxonomies that classify entities in ordered groups. In the case of "plumber," this would be a taxonomy of functional roles inscribed in something like the Yellow Pages, the guide book to occupations.

Equally important to everyday life is the need to go beyond the information immediately given. Equipped with the categories "dog" and "bark," a person might conclude that some dogs bark. After observing several dogs bark, one might reasonably come to believe that many dogs bark. Still, this is insufficient to deduce that all dogs bark (as Hume observed some time ago). Nonetheless, people actually do acquire general knowledge that goes beyond the information given.

Remarkably, this sort of knowledge is often acquired under impoverished learning conditions. Consider a child coming to understand the principle that all dogs bark. Many of the dogs that the child encounters are not barking when the child encounters them. Of course, some do bark, but then some adults also bark at least in jest (my guess is that adults bark around children at least as much as dogs do). Curiously many toddlers need only a single learning trial (a single observation) to infer that all dogs bark. How does this happen? In significant measure because many everyday categories are embedded in comprehensive knowledge structures that not only catalogue difference but interpret it. The interpret it by guiding hypothesis formation about a given domain of the world (say, living things construed as biological entities). Under such conditions, coming to believe that all dogs bark after witnessing only one or two barking dogs may be the only reasonable inference. Of course, this readiness to go beyond the information immediately given is not a property of all systems of embedded categories (for example, the system inscribed in the Yellow Pages does not support these sorts of inferences).

The purpose of this essay is to explore what kinds of taxonomies actually do support this kind of reasoning. Suffice to say for the moment, a similar readiness to go beyond the information given is found in taxonomies of people.

Much of our everyday life involves interactions with and expectations about other humans. Arguably we know more about humans than we do about anything else. Some knowledge is the Yellow Pages sort and does not support many inferences beyond the information immediately given. Some knowledge is more inferentially powerful. Stereotypes, a feature of many person taxonomies, are a good example of this. Under impoverished learning conditions, humans display a highly regrettable willingness to attribute to members of certain categories characteristics that have very little or no empirical basis. For instance, after encountering one violent black plumber, it is not uncommon for many whites to conclude that all blacks are potentially violent. Very few, however, conclude that all plumbers are violence prone. Consider in this light one of the findings that came out of Allport and Postman's (1947) classic study of rumor. As part of a memory study, subjects were shown a picture depicting two men, one black and one white, confronting each other on a subway car. The white has a straight razor in his hand. After viewing the picture, the first subject describes it to a second subject, who in turn describes it to another, and so on. After a few retellings, the straight razor ends up (is inferred to be) in the

hand of the black.

In this essay, I will speculate on why knowledge of this sort becomes part of our mental fabric so easily. My interest is less in how general taxonomic knowledge of persons develops than in how inferentially rich taxonomic knowledge of persons is formed and remembered. My first task accordingly will be to identify which knowledge structures are inferentially rich and which are not.

How do we know that a particular taxonomic system is inferentially rich? The answer is not self evident, but several possibilities are plausible. First, an inferentially rich taxonomy should be readily available cognitively. A taxonomic system that takes great effort to activate is less useful than one which is at hand without difficulty. Second, an inferentially rich taxonomy should be relevant in many contexts. Again, if a system applies only in very limited contexts, it is less valuable than one that applies in many contexts. Naturalness is a third possibility. The more natural (as opposed to contrived) a taxonomic system is thought to be, the more inferentially rich it is.

Race and gender are good illustrations. We know that both race and gender support inferences beyond the information given. Members of racial and gender categories are frequently stereotyped, and stereotypes are by definition inferences that go beyond the information directly given. Race and gender are also rapidly accessible and both are relevant in many contexts. In these regards, children's thinking about race and gender is much the same as adults'. Even quite young children preferentially sort people by race and gender, and they do so in a wide range of contexts (Clark and Clark, 1947; Katz et al., 1975). Both categories are (supposedly) clearly signaled by superficial differences in anatomy, dress, and behavior (see Hirschfeld, 1996). Psychologists have attributed this ready accessibility and broad relevance to the categories' visual prominence (for adults, see McCann et al., 1985; for children, Aboud, 1988).

It is important to bear in mind that social psychologists do not attribute the ready accessibility and broad relevance of race and gender to the fact that these particular categories are visually prominent social categories. Rather, any category with marked visual correlates will be readily accessed and broadly relevant. Generalizations about race and gender (for example, stereotypes about members of racial and gender categories) are no different from (and no more or less accurate) than other cognitive generalizations (say, about tables, musical instruments, or field mice) (Taylor, 1981). For instance, we know that information consistent with existing race and gender stereotypes is more easily encoded and remembered than information that is inconsistent with the stereotypes (Fiske and Taylor, 1991). But this pattern of memorability is not about the fact that race or gender are social phenomena but rather is about the fact that they are categories.

Other scholars have been less willing to attribute the rapid accessibility and broad relevance of race and gender to psychological causes.

Social scientists, noting that racial and engendered systems of classification are inevitably and intimately linked to systems of power and authority, have attributed the everyday importance of these social categories to dynamics of social, political and economic context. The capacity of racial and gender taxonomies to go beyond the information given, they suggest, does not emerge from psychological properties but from the close association of these taxonomies with regimes of inequitable power.

While both these approaches clearly have merit, neither adequately explains why it is so easy to move from beliefs about external attributes to expectations about internal ones. Nor does either approach adequately explain why systems of thought that represent and draw attention to human differences also assess the meaning of those differences. Even if (as I doubt) race and gender are directly given to the naked eye, it does not follow that knowing someone's race and/or gender reveals truths about his or her inner nature, about his or her invisible qualities.

Invisible causal properties are neither a function of spontaneous recognition nor a function of hyper saliency,

but a function of naturalness. It is this naturalness that is the key to understanding inferential power. Shortly I will discuss the notion of naturalness in detail, but first it is important to stress what it is not. A system of thought is not natural in virtue of being a true or accurate description of the world. If accuracy were a condition on natural taxonomies, then race could clearly not be natural. Human biological variation is not captured by any known system of racial classification nor can human beings be partitioned into well-bounded and discrete groups on the basis of their biological constitution.

A system of thought is natural to the extent that it can be characterized as 1) a theory-like knowledge structure that picks out and interprets entities 2) in virtue of their being a particular "kind of" thing. With respect to 1), a theory-like a knowledge structure must satisfy three conditions: it must be coherent (the parts of theories and the predictions they make must interconnect in consistent ways), it must pick out a class of entities that fall under the theory (a theory of biology cannot be applied to the phenomena of physics), and it must identify causal processes that are specific to that theory (a theory of biological kinds includes causal processes like growth and inheritance, not momentum and force). In principle, theories are not required for getting around the world. It is possible to form biological categories, for instance, without the benefit of theories, as when pigeons are taught to distinguish paintings by Monet and Picasso (Watanabe et al., 1995).

What makes something "of a kind"? The natural taxonomy of living things is based on the expectation that all plants and animals are of a kind in that each belongs to one and only one species. This expectation is not an empirical observation but a premise of the theory of naive biology. Another premise of the theory is that you cannot identify a plant or animal's species simply by looking at it. Identity under the natural taxonomy of living things is determined by the "natural" composition of the organism. This composition is not obvious to the naked eye (although appearances provide a guide to species identity). Under the everyday theory of biology that most North Americans hold, natural composition comprises a unique genetic constitution that is shared by all members of the species. A three-legged, albino tiger is a tiger, despite the fact that tigers are typically striped quadrupeds. What makes a three-legged albino tiger a tiger is its "essence," the invisible causal property that regulates the organism's development and growth. Special circumstances--including corruption in the growth process, postnatal accidents, and so on--might change outward appearance but not the essential nature of the organism.

Strikingly, even quite young children grasp this, expecting an animal's species identity to be unchanged even if it lacks features usually associated with its appearance. Three- and four-year-olds, for example, believe that a tiger is still a tiger even if it is altered to look like another animal (for example, when someone puts a lion costume on it [Keil, 1989]). Gelman and Wellman (1991) found that preschoolers understand species immutability when the animal's body actually is changed. They asked children what would happen if an animal had its "insides" taken out and what would happen if the animal had its "outsides" taken out. Four- and five-year-olds believed that without its insides (for example, its blood and bones), a dog is no longer a dog. Nor can it behave like a dog (for example, it can't bark and it can't eat dog food). In contrast, the children believed that having the dog's outsides removed would not alter the fact that it is a dog.

Why are some categories "of a kind" and not others? One standard of kindhood is the degree to which the categories or the "groupings" that constitute a taxonomy are treated as distinct entities. When we sort humans in groups based on height, we don't end up with humans "of a kind" but with a collection of people who share a particular property. In contrast, groupings "of a kind" are not collections but moral (or corporate) individuals, entities that "take on" a life of their own. For instance, the Republican party can be conceptualized as a moral individual to the extent that it makes sense to say that the Republican party "believes in" a certain political ideology. Only individual persons or moral individuals have belief states. It is less intuitive to say that the Republican party "feels" a particular emotion, Nor is it intuitive to claim that the Republican party "remembers." In this sense the Republican party is not a moral individual. "Kind of" entities have unalterable identities. One can leave the Republican party in the way one can't leave the species *Homo sapiens*.

Bear in mind, however, that this is not a general fact of political affiliation. Having been a member of the Nazi party is not quite the same thing as having been a member of the Republican party. Nazi party membership carries effects that cannot be shed: hidden perhaps, but not lost--as Kurt Waldheim discovered. In this sense, being a member of the Nazi party conveys an attribution of a kindhood, just as membership in the American Communist party did in the 1950s. The sorts of kinds just described are clearly historically and culturally specific. Being a member of the French Communist party in the 1950s probably did not carry the same cognitive consequences (nor political ones, for that matter) as did being a member of the Communist party in the 1950s in the United States.

A parallel argument could be (and has been) made for racial identity. There are many systems of racial taxonomies and they all might carry different consequences. The Census Bureau currently favors a particular set of taxonomic entries (White, Black, Asian and other Pacific islander, Native American, and Hispanic). Earlier censuses included a different set of entries (for example, Hindoo and mulatto). Most, if not all systems of racial taxonomy, nonetheless, are natural in the sense that attribution to a racial category is made by attribution to an inner or distinguishing essence. Appiah (1990, p. 276) describes how this notion was articulated in nineteenth-century England. According to the Victorian system, people everywhere could be divided into

A small number of groups, called "races," in such a way that

all members of these races shared certain fundamental, biologically

heritable, moral and intellectual characteristics

with each other that they did not share with members of

any other race. The characteristics that each member of a

race was supposed to share with every other were sometimes

called the essence of that race.

The idea of racial essences is not peculiar to nineteenth-century England. The nineteenth-century French racial theorist Gobineau (1883-1885) invokes (and endorses) the same notion in his discussion of race world-wide. Allport (1954) describes racial thinking in mid-twentieth-century North America as essentialist and there is little reason to believe that the concept is less part of contemporary thinking in the United States. Nor does the notion of racial essence appear to be recent. Takaki (1992) describes it as central to the image of Native Americas held by seventeenth-century Massachusetts Bay colonists. Elsewhere, I (Hirschfeld, 1996) argue that an essentialized concept of race is considerably older and more widely spread than many historians believe.

An essentialist interpretation has been linked to the idea of racial purity and political systems that seek to maintain "purity" by inhibiting interracial intimacy. Still, all systems of racial belief face the problem of resolving what the racial status of mixed-race children is. Children whose parents are racially different have a racial identity, and few if any systems of racial thinking permit a person to have multiple racial identities. How to decide the question is not self-evident: as with all racial identity, mixed-race children's racial identity is determined by convention. Under some systems of thought, the children of interracial couples produce a new racial type. For example, in the antebellum lower South, mixed-race children were classified "mulatto" (Starr, 1987). In the 1850s, this changed as the structural importance of mulattos as an intermediate social class changed (Williams, 1980; Fredrickson, 1988). In contemporary American culture, mixed-race children's racial identity is determined by the so-called one-drop-of-blood rule. According to the rule, a person is black if they have any traceable black ancestry. The amount of "traceable black ancestry" necessary to fix racial identity varies. As recently as 1986 the courts in Louisiana ruled that a person is black if one of his or her

great-grandparents was black (Davis, 1991). Of interest here is that the one-drop rule is transparently essentialist, with the notion of "blood" standing in for that of invisible essence.

There is of course nothing self evident in determining racial identity this way (nor is it self evident that interracial children of any mixture should belong to a single "mixed race" category, as proponents of such a census category have recently advocated). Plausibly, learning any cultural convention for assigning racial identity is linked to the political ideology that it supports. Ultimately, however, learning a rule requires that its adherents have more or less the same mental representation.

When and in what form is a mental representation of the one-drop rule acquired? Taking this as a question of conceptual development, I turned to methods long favored by developmental psychologists; namely, experimental manipulations. I (with the collaboration of Ken Springer) asked second and sixth graders and adults in a northern Midwestern university town and a large Southwestern city to tell us what happens when parents of different races have children. Specifically, we showed children drawings of four couples: a black male and a white female, a white male and a black female, a white male and a white female, a black male and a black female. We then asked the children what race the couples' children would be, "white," "black," or "something else." Not surprisingly, younger and older children and adults judged that children of the same-race couples would racially match their parents. However, when asked about the children of interracial couples, second graders chose at random; older children opted for either black or white, but with no particular preference; while adults overwhelmingly chose black for all the interracial couples items.

A follow-up study posed the same question to a different group of children. Instead of asking them for the racial category identity of the child, we asked what the children of the four would look like. Children were shown pictures of infants that were physically black, white, and intermediary. Again, second graders chose at random, indicating that they subscribe to no particular convention for solving racial ambiguity. In response to questions about the inheritance of physical features of race, sixth graders's overwhelmingly expected--in contrast to their judgments about category identity--that the mixed-race child would have black features. Adults judged that the inheritance of physical features would follow a radically different pattern than the assignment of racial category identity. In the racial category task, adults inferred that mixed-race children are black; in the physical trait task, adults expected the mixed-race children to be intermediate in appearance. In sum, the results of the two tasks demonstrate that both sixth graders and adults hold a version of the one-drop rule. Strikingly, however, they do not hold the same version.

This divergent pattern of reasoning is interesting on two counts. First, it tells when one-drop rule is learned. Second, while the rule is evidently learned, it is acquired in a fairly peculiar way. Children and adults subscribe to very different versions of the rule. In itself, this is not surprising; children typically converge on adult beliefs incrementally, at any given stage sharing some but not all of adult belief. But in this case the difference between adult and children's beliefs are not incremental but conceptual. Children's version of the rule is not simpler, merely lacking some of the subtleties of the adult account. Rather, children subscribe to a very specific and physicalized version of the rule. It is not obvious what experience motivates children toward this physicalized (and essentialized) interpretation.

The possibility I would like to pursue here is that children develop this singular version of the one-drop rule because they bring to the task of acquiring it a good deal of prior knowledge about race. Some of that prior knowledge is trivial. Children must be able to distinguish between members of different races and know the labels for them. That even preschool children can do this has long been acknowledged (Clarks, 1947). Another piece of prior knowledge is considerably less obvious. In order to acquire an essentialized version of the one-drop rule, children need to have already developed an essentialized understanding of race. But according to most researchers, young children do not grasp this. Indeed, on the widely accepted view, the meaning of race for young children is almost entirely driven by outward appearances (Holmes, 1995; Aboud, 1988; Katz, 1982). On this account, young children conceive of race as a superficial quality, one that is literally skin deep.

According to this standard view, young children do not understand the convention that racial identity is a function of family background, is immutable, and an invisible essence. This is the case because young children supposedly overestimate the importance of superficial appearances. For example, when Frances Aboud (1988) asked young children whether a non-Eskimo dressed up like an Eskimo is an Eskimo, they answered "yes." When asked whether a black child wearing white makeup and a blond wig is still black, they responded "no." In short, young children do not understand that race is constant.

Several aspects of this nonessentializing picture of children's social understanding are curious. For one thing, it conflicts with the repeated finding that children of the same age essentialize plant and animal species as discussed earlier. Why would they have so much difficulty with the convention that human races are also essentialized? Another concern is methodological. Why should we expect children to interpret sudden and unfamiliar changes in appearances, like those used by Aboud and Semaj, as "natural." Adults certainly would not. Clearly such events do not correspond to anything the child experiences in everyday life. On the other hand, children do expect that physical appearances will radically, if not suddenly, change under certain circumstances. For instance, children have a principled understanding of growth: as a person ages, their body (including their face and hair) changes sometimes in dramatic ways (Rosengren et al., 1991). Similarly, children understand that at least some aspects of physical inheritance involve patterned physical transformation, expecting that children resemble (but are not identical to) their parents (Springer and Keil, 1989).

To reexplore the possibility that young children essentialize race, I asked children about the growth and inheritance of racial morphology. Specifically I wanted to know what they thought happens to physical (including racial) appearance as a person ages and what aspects of physical (including racial) appearance is passed from parent to child (Hirschfeld, 1988, 1993, 1995). In one study, I showed preschool children drawings of an adult and three children. Each picture depicted the person's race, occupation, and physique. Each of the three children shared two of the three dimensions with the adult drawing. Children saw three different sets of pictures. Each set consisted of the adult target picture and two of the children's pictures. As they looked at each triad, children were asked to identify which of the drawings was the adult's child (in another series they were asked which was a picture of the adult as a child). The logic of the design was that if children believe that race is simply one of many outward appearances, they should choose at random (since all three children resembled the adult in two of three properties). If children believe that race is more closely linked to family background, they should choose the drawings in which the child racially matches the adult.

Indeed, the second prediction was supported by the children's responses. Even three-year-olds expected that a child is more likely racially to match his or her parents than to resemble them in physique, and four-year-olds expected that a child is more likely to resemble his or her parents racially than to resemble them in either physique or occupation. These findings are inconsistent with the standard claim that preschool children's social reasoning is tethered to superficial aspects of appearance, but are consistent with the claim that they naturalize race.

A second study revisited the claim that young children do not grasp that race is immutable. If children were as environmentalist as the standard view claims, then they should expect that changes in the racial environment will lead to changes in race, just as they should expect changes in the sartorial environment will lead to changes in clothing. To test this, I told preschool children a story about two families, one black and the other white, whose babies were born in the same hospital on the same day. Inadvertently, each couple took the other couple's baby home. The story stressed the link between pregnancy and birth and highlighted the social correlates of parenting. We then showed the children pictures of two school-aged children, one who racially resembled the birth parents, the other who racially resembled the adoptive parents. We asked the children to identify which child went with which couple. Again, the logic of the task is simple: if children believe that race is socially determined, they should choose the baby that matches the race of the adoptive parents. If they believe that race is an immutable biological property, they should choose the baby that matches the race of the birth parents.

The results were clear. Even three-year-olds reliably chose the child that matched the birth parents' race (that is, they understood that the child's race would not change as a result of living with the adoptive parents), consistent with the claim that preschoolers understand that an individual's race is set at birth and alterable by conditions of their nurture. The surprising thing about these findings--apart from the contribution they make to the parochial debate about when a coherent account of race emerges--is that taken together they suggest, indeed support quite strongly, that children develop much of their beliefs about race on their own. How else would children acquire this knowledge? It is unlikely that they are taught it. Adults, at least in contemporary North America, generally believe that their young children are color-blind. Indeed, several studies confirm that race plays almost no role in young children's behavior and speech (Aboud, 1988; Holmes, 1995). Perhaps because of this adults quite strikingly avoid talking about race to children (Kokfin et al., 1995). Since their peers and their parents pretty much ignore race, it is not obvious what learning conditions would lead young children to develop the extraordinarily sophisticated knowledge of race that they do.

I don't mean by this that without the appropriate cultural stimulus children would "invent" race. Rather I mean that in virtually every culture anthropologists have studied we find systems of natural human taxonomy. We find them, I propose, because children are prepared to represent the sociological landscape in a singular manner. Their representations are not those of a naive observer, but a "scientist" equipped with a plausible theory. This is not to say that children are prepared to find race. They are prepared to find some natural human kinds. The kinds they find are governed by the culture in which they live. Children in South Asia presumably develop a proto system of caste thinking on their own, children in many sub-Saharan societies presumably develop a proto system of age grades on their own, just as children in contemporary North America (and Europe) develop a proto system of race on their own. Children attend to the cultural environment, seek out the relevant named categories, and integrate these categories into a system of thought that renders some natural and others contrived. But it is children themselves who bring to this process the notions of "natural" and "contrived."

Discussion

According to a widely held view, the human mind is a general-purpose problem solver, equipped with sense organs for gathering information, a capacity for organizing sensory information, and capacity for making logical judgments about that information. This mental equipment can be brought to bear on any cognitive task, whatever the specific content. Learning a language is much like learning to play chess, learning social conventions is much like learning the rules of football. An alternative account holds that the human mind is not a general-purpose tool (like kitchen appliances sold on late-night television), but a tool-kit of specialized abilities that evolved to handle specific problems. Each ability targets specific types of information and guides formation of specific hypotheses about particular phenomena.

This view of the human mind has implications for how knowledge develops. Learning about different things, different domains of the world, proceeds in distinct ways (Hirschfeld and Gelman, 1994). Some of this learning is innately guided. Evolution has equipped humans (and all other species) with knowledge acquisition strategies that make learning about some things easier and more rapid. Chomsky's language acquisition device is the most widely discussed of these innately guided strategies. Language learning, in his view, "is really not something that the child does; it is something that happens to a child placed in the appropriate environment" (Chomsky, 1988, p. 134).

I am not suggesting that the child's knowledge of "natural" social categories like race has any of the specific properties of language acquisition. I am suggesting that the child's singular thinking about race, particularly the way that such thinking appears to emerge "on its own," develops as it does because of an evolved capacity that guides the way adults and children segment and reason about the social world. We might call this strategy a naive sociology. On reflection, it would be surprising if such a device did not exist given how important to survival is the ability to conceptualize and make rapid judgments about persons, their social affiliations, and

the coalitions to which they belong. Natural human kinds like race are a central, perhaps the central, dimension of naive sociology. Like other evolved cognitive devices, the natural human kind one not only recognizes salient difference, but creates and interprets it. Gender, age, caste, nationality, ethnicity, and sometimes religion are naturalized in some contexts and in some cultures. Saying that race is natural is saying that a specialized cognitive device invests a culturally specific notion (in this case, race) with an extraordinary naturalness. The experimental findings I reviewed above do not demonstrate that children naturally naturalize race; they demonstrate that children naturally naturalize those social dimensions that the ambient culture marks as especially salient.

Let me rephrase this in terms of what I am not saying. Race is not a cognitive device. Rather, race's particular cognitive properties are formed by a specialized cognitive device. But this device by definition underdetermines race. The readiness to categorize humans into natural human kinds does not in itself create any particular system of social reference. Social beliefs do not spring from a natural human kind device. Rather, a natural human kind device enables social belief. To produce a specific and articulate system of social belief, the evolved device must make contact with a cultural environment. Ultimately, the question of interest is how and under what conditions cultural, political, and other ideological systems of belief recruit and are recruited by innately guided strategies for acquiring knowledge.

Taxonomies of race vary considerably across cultures and historic time. My proposal neither denies this variability nor implies that it is trivial. Nor am I suggesting that racial thinking is impervious to cultural and political influence. Indeed, racial thinking is literally unthinkable in the absence of culture and polity. Something, typically a system of cultural belief, channels an abstract set of expectations about human difference toward a specific range of differences. In some, in fact in many, social formations this turns out to be racial. But given that interpretations of raciality vary considerably, the way these abstract principles are deployed must also vary.

I'm also not suggesting here that the relationship between natural human kinds and culture is harmless, simply a cognitive byproduct of evolution. Culture and cognition make contact in more than one way. On the one hand, our cognitive architecture makes some cultural representations possible and precludes others. On the other hand, this same architecture resonates in frightening ways with regimes of power and authority. Virtually any category can be infused with instrumental prejudice. I grew up a Detroit Lion's fan and detested the Green Bay Packers. Doubtless this sort of bias served to increase the commercial value of televised football games, because biased viewers like me were more likely to watch the televised games than an indifferent audience. It isn't difficult to trigger, and presumably manipulate, bias. In an ingenious set of experiments, Henri Tajfel (1981) showed that favoritism toward an ingroup and enmity toward outgroup can be activated with alarming ease.

The particular way that natural human kinds amplify prejudice, however, is astounding. Few prejudices support violence. Almost none do the way natural human kind prejudice does. Why? Perhaps because the deeper the reasoning and the greater the inferential power of a category, the deeper and broader the prejudice associated with it. That is to say, as prejudice targets deeper and deeper (more and more invisible) properties, the more strident the prejudice becomes. Naturalness may not create deviant and distorted cognitions, but it goes a long way toward making them compelling. This, I further suggest, is why racial and gender taxonomies so often figure in systems that regulate power and authority. It makes more sense to say that political economy recruits natural human kinds than to say that natural human kinds emerge out of specific regimes of power. In brief, the way natural human kinds, like race, are mentally represented makes them "naturally" attractive modes for politically representing relations of power and authority (Hirschfeld, 1997).

References

Aboud, F., *Children and Prejudice* (New York: Basil Blackwell, 1988).

Allport, G., *The Nature of Prejudice* (Cambridge: Addison-Wesley, 1954).

- Allport, G., and Postman, L., *The Psychology of Rumor* (New York: Russell and Russell, 1947).
- Appiah, A., "Race," in F. Lentricchia and T. McLaughlin, eds., *Critical Terms for Literary Study* (Chicago, University of Chicago Press, 1990).
- Atran, S., *Cognitive Foundation of Natural History* (New York: Cambridge University Press, 1990).
- Chomsky, N., *Language and the Problems of Knowledge: The Managua Lectures* (Cambridge: MIT Press, 1988).
- Clark, K., and Clark, M., "Racial Identification and Preferences in Negro Children," in T. Newcombe and E. Hartley, eds., *Reading in Social Psychology* (New York: Holt, 1947).
- Davis, F., *Who Is Black: One Nation's Definition* (University Park, Penn.: Pennsylvania State University Press, 1991).
- Fiske, S., and Taylor, S., *Social Cognition* (New York: McGraw Hill, 1991).
- Fredrickson, G., *The Arrogance of Race: Historical Perspectives on Slavery, Racism, and Social Inequality* (Wesleyan: Wesleyan University Press, 1988).
- Gelman, S., and Wellman, H., "Insides and Essences: Early Understandings of the Non-obvious," *Cognition* 38 (1991): 213-44.
- Gobineau, A., *Essay on the Inequality of Human Races* (H. Fertig, 1883-1885)
- Hirschfeld, L., "On Acquiring Social Categories: Cognitive Development and Anthropological Wisdom," *Man* 23 (1991): 611-38.
- Hirschfeld, L., "Discovering Social Difference: The Role of Appearance in the Development of Racial Awareness," *Cognitive Psychology* 25 (1993): 317-50.
- Hirschfeld, L., "Do Children Have a Theory of Race?" *Cognition* 54 (1995): 209-52.
- Hirschfeld, L., *Race in the Making: Cognition, Culture, and the Child's Construction of Human Kinds* (Cambridge: MIT Press, 1996).
- Hirschfeld, L., "The Conceptual Politics of Race: Lessons from Our Children," *Ethos* 25 (1997): 63-92.
- Hirschfeld, L., and Gelman, S., eds., *Mapping the Mind: Domain Specificity in Cognition and Culture* (New York: Cambridge University Press, 1994).
- Holmes, R., *How Young Children Perceive Race* (Thousand Oaks, Calif.: Sage Publications, 1995).
- Katz, P., "Development of Children's Racial Awareness and Intergroup Attitudes," in L. G. Katz, ed., *Current Topics in Early Childhood Education*, vol. 4 (Norwood: Ablex, 1982).
- Katz, P., Sohn, M., and Zalk, S., "Perceptual Concomitants of Racial Attitudes in Urban Grade-school Children," *Developmental Psychology* 11 (1975): 135-44.
- Keil, F., *Concepts, Kinds, and Cognitive Development* (Cambridge: Bradford Book/MIT Press, 1989).
- Kokfin, J., Katz, P., and Downey, E., "Family Discourse about Race and the Development of Children's Racial Attitudes," paper presented at Biennial Meeting of the Society for Research on Child Development, Indianapolis, Indiana (April 1995).

McCann, D., Ostrom, T., Tyner, L., and Mitchell, M., "Person Perception in Heterogenous Groups," *Journal of Personality and Social Psychology* 49 (1985): 1449-59.

Rosengren, IC, Gelman, S., Kalish, C., and McCormick, M., "As Time Goes By: Children's Early Understanding of Growth in Animals," *Child Development* 62 (1991): 1302-20.

Semaj, L., "The Development of Racial Evaluation and Preference: A Cognitive Approach," *Journal of Black Psychology* 6 (1980): 59-79.

Sperber, D., "Pourquoi les animalaux parfaits, les hybrides et les monstres sont-ils bon a penser symboliquement?" *L'Homme* 15 (1975): 5-24.

Springer, K., and Keil, F., "On the Development of Biologically Specific Beliefs: The Case of Inheritance," *Child Development* 60 (1989): 637-48.

Starr, P., "Social Categories and Claim in the Liberal State," in M. Douglas and D. Hull, eds., *How Classification Works* (Edinburgh: Edinburgh University Press, 1987).

Tajfel, H., *Human Groups and Social Categories* (Cambridge: Cambridge University Press, 1981).

Takaki, R., "The Tempest in the Wilderness: The Racialization of Slavery," *Journal of American History* 79 (1992): 892-12.

Taylor, S., "A Categorization Approach to Stereotyping," in D. Hamilton, ed., *Cognitive Processes in Stereotyping and Intergroup Behavior* (Hillsdale: Lawrence Erlbaum Associates, 1981).

Watanabe, S., Sakamoto, J., and Wakita, M., "Pigeon's Discrimination of Paintings by Monet and Picasso," *Journal of the Experimental Analysis of Behavior* 63 (1995): 165-74.

Williams, J., *New People: Miscegenation and Mulattoes in the United States* (New York: Free Press, 1980).

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