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The Voices of Silence: Cognition, Culture, and Racism

By BEVERLY HORSBURGH*

SOMETHING EXTRAORDINARY CAN happen when individuals gather together and form a crowd. I know this because of my own experience on the day that the jury announced their verdict in the O. J. Simpson trial. I was in an auditorium filled with students and professors who responded to the news with expressions of joy and triumph untempered by the conventions ordinarily restraining human behavior. The roaring voices and the stamping feet made it seem as if everyone in the room was performing some sort of atavistic, rites-of-spring ritual dance. It was a grotesque pageant staged by Borges. It was science fiction made real through a television broadcast that transformed the audience into creatures predating the evolution of the homo sapiens species. The crowd had regressed in time and become our remote ancestors—I mean the ones whose genes we carry, even though they are but dimly remembered and usually suppressed from consciousness. It seemed to me that our ancestors came to life that day because some sacred primeval right to control and batter females had been vindicated during the trial. Because I thought the trial was supposed to be about society's failure to protect women, which is hardly a matter worthy of celebration, I was shocked and saddened over such an unseemly outburst of enthusiasm.

With these sentiments in mind, I left the auditorium and, on my way to the parking lot, spotted a construction crew working on building a new addition to the school. The workers were African-American. I impulsively stopped and called out "They announced the verdict!" The men turned and faced me with hope and fear in their eyes. At that moment my point of view completely changed and, with genuine

* Professor of Law, St. Thomas University School of Law. I thank Stephanie Wildman for helping me understand the power of silence. I also thank Jean Thomas for sharing her thoughts on the persistence of racism. I especially thank Andy Cappel for suggesting I study cognitive theory and affording me the benefit of his extraordinary insight.

pleasure, I shouted "Not guilty!" The men screamed "On all counts?" I nodded my head and smiled.

On the long drive home, I pondered my two conflicting states of mind. Surely there were good reasons to consider the trial a victory, in light of its public exposure of racism and incompetence within the criminal justice system. But why should the need to reveal this injustice be at the expense of recognizing the harm of domestic abuse? In my writings I draw on two schools of thought: feminism and critical race theory. To me, these disciplines are complementary and often intertwined. I had assumed the two would always be compatible, an ideal marriage based on similar goals and sympathetic understanding. Now, my own core values were at odds, and I despaired at the thought of compromising one to honor the other.

The next day I called Stephanie Wildman, a colleague who became one of my closest friends as soon as I began to read her sensitive and innovative scholarship. Eventually, we met in person when I invited Stephanie to be a guest speaker at St. Thomas Law School. Through the years she has mentored me, other professors in the legal academy, and a multitude of grateful students. As always, Stephanie's advice was straightforward and heartfelt. She told me that if, at times, we must choose one value over another, issues of race should come before issues of gender. I think this statement instantiates Stephanie's remarkable moral wisdom and character. Stephanie is admired for her insight and brilliance, but also loved for her kindness and personal commitments. Her dedication to the concerns of minorities, including her pioneering efforts to increase the number of black law school professors,¹ represents a standard that many academicians aspire to reach in their own work and lives. Furthermore, the directness and clarity of Stephanie's response, her ability to capture the essentials in just a few words, indicates one of the many reasons for her success as a scholar and teacher.

Stephanie's candid expression of her values in our telephone conversation reminded me that feminists must be willing to place race in the forefront, or we do not embrace the problems of all women, nor do we admit the degree to which racist attitudes infect all who are white. Similarly, in her writings, Stephanie has cautioned legal scholars to be careful in analogizing sex discrimination to race discrimina-

1. Through the storytelling device, Stephanie has educated the academic community on the importance of a diverse faculty and the difficulties one encounters in attempting to achieve this goal. See Stephanie Wildman, *Integration in the 1980s: The Dream of Diversity and the Cycle of Exclusion*, 64 TUL. L. REV. 1625, 1633-35 (1990).

tion.² While analogies enhance our comprehension of the experiences of others and build bridges across subcultures, they also tend to falsely equate various forms of oppression, make it easy for whites to avoid viewing themselves as the beneficiaries of a racist social order, and minimize the enduring nature of race-based prejudice.³ In addition, Stephanie has taught us that being white is, in itself, a privileged status and that white privileges are exhibited in imperceptible ways.⁴ The voices of the white majority dominate our culture, yet this majority need not voice its objection to racist speech and insulting behavior.⁵ There is a voice of silence that is just as much a performative act of power as the voice of speech. Both speech and silence reflect and reinforce the speaker's participation in a system based on the subordination of African-Americans.

Because I agree with my good friend Stephanie, and wish to thank her for her teaching in a meaningful way, I attempt, in this Article, to shed some light on why racism has come to be such an intractable form of prejudice in our society. I focus on one particular aspect of silence: the biases in the cognitive architecture of the mind, supporting the type of racism that operates on a nondiscursive, unconscious level. Specifically, I propose that a folk model of "natural kinds" of human beings plays a role in sustaining a race-based ideology. Arising out of a complex mix of racist cultural influences in the environment, and the inherent cognitive ability to distinguish the primary color of various animate and inanimate objects, this mental construct represents a belief in the significance of color as a manifestation of the genetic inferiority of African-Americans who, as a matter of evolutionary biology, are thought to be members of a subspecies of humankind.

Part I of this Article briefly comments on the persistence of racism in our society despite reformist efforts. This Part also contains an overview of contemporary writings on race that discuss the psychological factors motivating negative attitudes toward African-Americans, and interfering with the ability of whites to recognize—as well as effec-

2. See Trina Grillo & Stephanie M. Wildman, *Obscuring the Importance of Race: The Implication of Making Comparisons Between Racism and Sexism (or Other -isms)*, 1991 DUKE L.J. 397 (1991).

3. See *id.* at 399, 401, 404, 407–09.

4. See Stephanie M. Wildman, with Adrienne D. Davis, *Language and Silence: Making Systems of Privilege Visible*, in CRITICAL RACE THEORY: THE CUTTING EDGE 573, 575 (Richard Delgado ed., 1995); see also STEPHANIE M. WILDMAN ET AL., PRIVILEGE REVEALED (1996) (analyzing the unacknowledged privileges of whiteness).

5. See Wildman & Davis, *supra* note 4, at 575.

tively rid themselves of—prejudice. Part II summarizes the fundamental operations of the cognitive system and describes the development of cultural models, including, in particular, the folk model of natural kinds. The last section of Part II addresses the durability of these mental constructs, but also explains that recurrent encounters with African-Americans in social situations can cause a folk model of natural kinds to change so that new, more tolerant models can be created. In conclusion, this Article argues that combating racism requires a practice-based approach, grounded in the reality of every-day experiences. Instead of developing more theoretical perspectives on race, we need to build concrete and localized forms of integration. The presence of micro-sociological structures in which blacks and whites regularly and frequently interact to further commonly shared, community-related goals has the potential to break down stereotypes and transform social attitudes.

I. Theories on the Tenacity of Racism

A. The Failure to Eliminate Nineteenth-Century Racism

The motivating forces driving nineteenth-century racism are abundantly clear, considering that relationships between Europeans and Africans were, from the onset, systematically tied to the needs of an agrarian society. Economic gain and the demand for a cheap and permanent labor force led to the institutionalization of slavery and the invention of race as a marker that signified the innate inferiority of the African people. A race-based ideology, constituting religious beliefs⁶ and pseudoscientific theories on Africans as a subspecies of humankind,⁷ legitimized the regime as a part of the natural order, and exiated, to a large extent, any sense of guilt that might have arisen over such blatant exploitation. However, as we enter the twenty-first century, it is more difficult to understand the disparity in socioeco-

6. See JEFFREY M. BLUM, PSEUDOSCIENCE AND MENTAL ABILITY 99 (1978); THOMAS F. GOSSETT, RACE: THE HISTORY OF AN IDEA IN AMERICA 5, 62–63 (1963); C. ERIC LINCOLN, RACE, RELIGION, AND THE CONTINUING AMERICAN DILEMMA 23–59 (1984).

7. For an in-depth analysis of pre-scientific theories on race, see K. Anthony Appiah, *Race, Culture, Identity: Misunderstood Connections*, in K. ANTHONY APPIAH & AMY GUTMANN, COLOR CONSCIOUS: THE POLITICAL MORALITY OF RACE 30–71 (1996). See generally STEPHEN JAY GOULD, THE MISMEASURE OF MAN (1981); PAT SHIPMAN, THE EVOLUTION OF RACISM: HUMAN DIFFERENCES AND THE USE AND ABUSE OF SCIENCE (1994) (analyzing scientific theories on race). An overview of the various approaches can be found in Beverly Horsburgh, *Schrödinger's Cat, Eugenics, and the Compulsory Sterilization of Welfare Mothers: Deconstructing an Old/New Rhetoric and Constructing the Reproductive Right to Natality for Low-Income Women of Color*, 17 CARDOZO L. REV. 531, 538–55 (1996).

conomic status between blacks and whites.⁸ After all, we prohibit discrimination through our legal system and sanction those who engage in racist behavior or utter racist opinions that violate broadly shared informal norms. From a strictly financial perspective, in an international market, discrimination is an irrational course of conduct for employers because it excludes potentially valuable employees and is inefficient for society as a whole because it limits educational and business opportunities to one segment of society. Indeed, paradoxically, public pronouncements condemning racism and the passage of laws to combat discrimination have led to a widespread collective action problem;⁹ a good many whites are convinced that prejudice is a thing of the past and that there is no longer a need for affirmative action¹⁰ or to join together in the common interest of ensuring that progress is made and more aggressive measures are initiated. Given the tenacity of racism and the inadequacy of the expressive function of formal law,¹¹ informal social disapproval, and the discipline of the market to

8. Recent statistics report that the median income of 48,070 white, married couples in 1997 was \$52,098, whereas the median income of 3,921 black families was \$45,372. See THE NEW YORK TIMES 2000 ALMANAC 333 (John W. Wright ed., 1999) (citing U.S. BUREAU OF THE CENSUS, CURRENT POPULATION REPORTS: MONEY INCOME IN THE UNITED STATES (1997)). Black incomes are about 60% of whites, but there is a significant gap in wealth. For example, Bill Gates possesses more securities-based wealth than all 33 million African-Americans combined. See Courtland Milloy, *Sharing the Wealth is Not Enough*, THE WASH. POST, Sept. 19, 1999, at C01. See also David B. Wilkins, *Introduction: The Context of Wealth*, in K. ANTHONY APPIAH & AMY GUTMANN, COLOR CONSCIOUS: THE POLITICAL MORALITY OF RACE 24-26 (1996), (discussing the marginality and vulnerability of the black middle-class). Middle-class, black households are one-third poorer, depend more on two paychecks, and support more family members than white, middle-class households. See *id.* at 24. Moreover, blacks tend to work in manufacturing and in the government sector, two areas of employment that have been severely affected by downsizing. See *id.* at 23-25.

9. See, e.g., Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943, 993 (1995) (defining the collective action problem as the obstacles that an individual or part of the collective, such as the legislature, encounters in attempting to "induc[e] a collective response from a sufficiently large portion of the total society" to accomplish a collective benefit, such as transformation in the social meaning of race).

10. Subsequent to *Hopwood v. Texas*, 78 F.3d 932, 962 (1996), which held that the University of Texas School of Law's admission policy violated the Equal Protection Clause, the law school had only accepted five African-Americans by April of 1997. See *Hearing on H.R. 6, The Higher Educ. Amendments of 1998 Title III and Urban and Community Serv. Programs*, 105h Cong. (1997) (written statement of Dr. Thomas Cole, President, Clark Atlanta University, Atlanta, Georgia). In 1996, 65 blacks were admitted to the law school. See *id.* After Proposition 209 was passed in California, UCLA law school selected 21 blacks in 1997, representing an 80% decline in black enrollment as compared with the previous year. See *id.*

11. See generally Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021 (1996) (suggesting that law influences behavior through its alteration of the social meaning underlying customary norms by approving or condemning certain actions and arrangements).

transform social attitudes, scholars have sought to diagnose the pathology of race and search for reasons explaining its resistance to treatment.

B. Sustaining Racism: The Voices of Silence

Charles Lawrence is one of the first legal theorists to investigate the manner in which race continues to be a permanent feature in our environment and to take into account the interplay between racism, cultural norms, and the dynamics of human motivation. He asks whites to listen to the voice of silence, the inner voice within the self, and draws attention to unconscious racism: habits of thought that linger in the recesses of the mind even though there is no awareness of their presence.¹² Lawrence argues that, although racist attitudes are deeply ingrained in our culture, at this point in time, societal ethics dictate that such ideas are immoral; it is no longer socially acceptable to express prejudice against a minority.¹³ Racist beliefs henceforth arouse uncomfortable feelings of guilt, as well as conflicting emotional states of mind, both of which are repressed from consciousness.¹⁴ However tacitly communicated, negative stereotypes about African-Americans—the cultural baggage of slavery—are still handed down from generation to generation by relatives, peers, authority figures, and the media. These stereotypes both influence the judgments and behavior of whites, as well as define the content of the social meaning of race.¹⁵ Cultural learning is not, for the most part, explicitly taught, but is based on the transmission of unarticulated beliefs, preferences, and commonly shared understandings that are absorbed simply by interacting in this society.¹⁶ The semiotics, systemacity, and normativity of racism¹⁷ are, therefore, not easily substantiated.¹⁸

Barbara Flagg responds to Lawrence's concerns by providing a perspective on discrimination that is intended to sensitize whites to

12. See Charles R. Lawrence III, *The Id, the Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 STAN. L. REV. 317, 322 (1987).

13. See *id.* at 323.

14. See *id.* at 322.

15. See *id.* at 323.

16. See *id.*

17. See *id.* at 330–31, 356–58.

18. See *id.* at 336, 341–44. Noting that repressed feelings of racism find expression in actions or signs that convey negative attitudes about African-Americans, Lawrence proposes that the presence of racial discrimination should be judged according to a cultural meaning test: whether or not the behavior is commonly understood as signaling a racially symbolic message. See *id.* at 355–56.

the subtle signs of unconscious racism and allow them to understand they are responsible for the phenomenon's normative and systemic characteristics. She claims whites do not view themselves as having a color and, perforce, "are effectively raceless in the eyes of other whites."¹⁹ Consequently, notwithstanding the best of intentions on the part of white decision-makers, neutral criteria reflect unconscious racism inasmuch as they are derived from white experiences, behavioral expectations, and values.²⁰ Flagg calls for whites to work on developing a conscious sense of their own color.²¹ Listening to the voice of silence, in this case, requires whites to be willing, on a deep psychological level, to admit they are privileged, realize the partiality of their vantage point, and acknowledge that not mentioning race nonetheless references it, thereby reinforcing, through acts of omission, the advantages of whites and the marginalization of blacks.

In contrast with Barbara Flagg, who focuses on the unintended yet insidious nature of unconscious racism, Kimberlé Crenshaw views the social construction of race as serving a deliberate political purpose and contends racism manipulates the social reality of whites and lulls them into an acceptance of the status quo; race is the instrument that sustains a class-based hierarchical system.²² Implying that the seductive power of racism lies in its enhancement of the self-esteem of whites on an unconscious level, Crenshaw points out that the unspoken—yet widespread—belief in the cultural inferiority of African-Americans induces the white under-class to take comfort in their supposed superiority, act against their own best interests by identifying with the elite, and assume that the most meaningful of social bonds are predicated on color.²³ Crenshaw's voice of silence, then, involves stifling the voices of whites who, because of racism, do not speak out against the unjust distribution of resources and the oppressive economic conditions that harm both blacks and whites.

The last scholar I mention, Iris Young, ventures further into the workings of the mind. She identifies the primary level of an individ-

19. Barbara J. Flagg, "Was Blind, But Now I See": *White Race Consciousness and the Requirement of Discriminatory Intent*, 91 MICH. L. REV. 953, 969–73 (1993).

20. See *id.* at 973, 979. Flagg names the unconsciousness of whiteness the "transparency phenomenon." *Id.* at 957. For instance, explains Flagg, the statement by a white individual that she has a friend who is "tall, dark and handsome" contains an unspoken cultural assumption that the friend is white. See *id.* at 973. The point is that there is no need to signify the friend's race unless it differs from the implied normative standard.

21. See *id.* at 970–73.

22. See Kimberlé Crenshaw, *Race, Reform, and Retrenchment: Transformation and Legitimation in Antidiscrimination Law*, 101 HARV. L. REV. 1331, 1360, 1369–72 (1988).

23. See *id.* at 1371–72, 1379–81.

ual's sense of subjecthood, the level of "ontological integrity," which is the situs of the basic security system of a subject and the storage place for bodily-threatening experiences.²⁴ Young examines this basic security system split off from the subject's fragile sense of self-identity, competence, and autonomy.²⁵ These unconscious, repressed experiences are released in the form of a nonverbal language, displayed in the subject's bodily behavior, specific modes of speech, voice tone, and other symbolic representations.²⁶ A subject maintains her basic security system in social encounters through the use of self-defense mechanisms, which reassert and reinforce the projection of an integrated self.²⁷ One mechanism a subject relies upon as a means of reinstating a sense of self-identity is intertwined with racism: the proclivity to react to feelings of inadequacy and endangerment by expressing aversion, nervousness, condescension, and stereotyping towards blacks.²⁸

Young grounds her analysis in Julia Kristeva's concept of abjection: feelings of loathing and fear that accompany the infant's traumatic development of a sense of boundary between the self and other.²⁹ To protect against boundary transgressions, individuals resort to a strategy of aversion from those who remind them of their primary infantile sensations and, thus, are seen as threatening the precarious self/other separation and the very perception of one's subjecthood.³⁰ While Young seems to suggest that abjection is a universal part of the growth of the human personality, she makes it clear that the choice as to which group or groups to target is culturally specific, based on the historical contingencies of a given society.³¹ But, once the selection is made, the abject group is locked into the identity anxieties of the majority.³² Accordingly, for Young, grasping the workings of contemporary racism requires studying the voice of silence—the defensive strategies revealed in bodily behavior and gestures, which are the signaling devices of aversion-based prejudice that cause standards of intelligence and aesthetic beauty to be freighted with unconscious racism.³³

24. IRIS M. YOUNG, *JUSTICE AND THE POLITICS OF DIFFERENCE* 131 (1990).

25. *See id.* at 131–32 (citing ANTHONY GIDDONS, *THE CONSTITUTION OF SOCIETY* 79 (1984)).

26. *See id.* at 132.

27. *See id.*

28. *See id.* at 133–34.

29. *See id.* at 142–43.

30. *See id.* at 143–45.

31. *See id.* at 145.

32. *See id.*

33. *See id.* at 133–35, 141.

C. Another Voice of Silence: The Cognitive Operations of the Mind

Iris Young, along with the other previously discussed scholars, underscores the sheer power of silence as a specific type of communicative activity that preserves racist thinking and practices without the conscious awareness of the speakers. What we gain from the writings of these scholars is a recognition of the many unspoken—and yet constantly transmitted—messages, signaling intentions and denoting social meanings so widely shared that there is no need for words. Furthermore, the authors effectively prove that regulations designed to sanction an individual social actor's intentional discriminatory conduct are ill-equipped to address racism's psychological dimensions. Their theories on the genesis or purpose of racism also reveal the frustrations we face in attempting to eradicate a mindset which individual social actors are programmed to deny. However, the problem with a strictly psychologistic perspective is that, generally speaking, psychology, in and of itself, does not fully explain the precise means by which the mind absorbs, processes, and retains cultural information that shapes attitudes about race and motivates behavior. What is missing is an investigation of the complex interrelationship between external cultural forces and internal cognitive operations that together frame and give meaning to experiences, as well as guide responses to social situations. Moreover, because cultural learning includes the acquisition of information or ideas about the inferiority of African-Americans, and the retention of cultural knowledge requires the formation of nearly indestructible structures that are hard-wired into the mind, the cognitive system, to some extent, acts to stabilize racism. Consequently, there are important reasons to broaden our outlook to include studies dedicated to discovering the constitutive elements of the human cognitive system governing our thinking process, our capacity to reason, and our interpretations of reality. Part II of this article will, therefore, shift the focus of the inquiry away from an emphasis on Freudian or post-Freudian psychology, and turn to the findings of cognitive psychology, anthropology, and linguistics. These disciplines offer us valuable information concerning racism's peculiarly intransigent nature.

II. The Role of Cognition in Sustaining Racism

A. A Brief Overview of Cognitive Processes

The research and experiments of cognitive scientists have shown that human beings understand their surroundings by employing two different kinds of cognition. Serial symbolic processing refers to a style of thought, a method of knowledge acquisition, and a specific reasoning style in which information about the environment is recoded by the mind into linguistic symbols that are manipulated sequentially, or in a chain of steps, according to the formal rules of logic and compositional syntax.³⁴ Along with this rule-bound and logic-based system, there is also an alternative mode of thinking, reasoning, and learning that is usually designated as the connectionist model of cognition.³⁵ Connectionist reasoning processes involve an architectural structure in the mind which is responsible for our skill at classifying objects of recognition and extracting information from the outside world that we reserve for use in the future.³⁶ This mental recognition and sorting mechanism, operating without our conscious awareness,³⁷ protects the senses from becoming overwhelmed by the sheer multitude of external physical and social phenomena.³⁸ To be sure, culture could not exist if the brain did not contain some sort of cognitive apparatus enabling individuals to divide the world into perceptual categories so that objects, events, and environmental interactions are instantaneously distinguished and absorbed.³⁹ Such a cognitive device also explains the capacity of human beings to experience

34. In this model of the mind, thought is a matter of sentences in the head. Linguistic representations of information are purely formal and are operated on by the conventions governing sentence structure. See ROY D'ANDRADE, *THE DEVELOPMENT OF COGNITIVE ANTHROPOLOGY* 136-37 (1995); William Bechtel, *The Case for Connectionism*, in *MIND AND COGNITION* 153, 156-58, 164 (William G. Lycan ed., 2d ed. 1999); Patricia Smith Churchland & Terrence J. Sejnowski, *Neurophilosophy and Connectionism*, in *MIND AND COGNITION* 133, 138 (William G. Lycan ed., 2d ed. 1999); CLAUDIA STRAUSS & NAOMI QUINN, *A COGNITIVE THEORY OF CULTURAL MEANING* 51 (1997).

35. See William G. Lycan, *Introduction to MIND AND COGNITION* 117, 117-18 (William G. Lycan ed., 2d ed. 1999).

36. See David I. Kertzer, *Ritual, Politics, and Power* 79, 81 (1988). For a discussion on both "rule-based" and "connectionist" types of thinking and their complementary aspects, see Steven A. Sloman, *Rational Versus Arational Models of Thought*, in *THE NATURE OF COGNITION* 557, 576-77 (Robert J. Sternberg ed., 1999); STRAUSS & QUINN, *supra* note 34, at 51-59.

37. See D'ANDRADE, *supra* note 34, at 122, 136.

38. See KERTZER, *supra* note 36, at 79-80, 84.

39. See *id.* at 79-80.

gestalts,⁴⁰ perform complex pattern recognition tasks,⁴¹ and convey meaning through the use of tropes—e.g., metaphor, metonymy, and mental imagery—in speech.⁴²

The fundamental building blocks of the cognitive architecture are termed schemas: bounded symbolic unitary entities⁴³ that cluster together to form integrated bundles of information.⁴⁴ As templates for the organization of experiences, schemas are built out of many—typically nonverbal—encounters with specific instances.⁴⁵ Schemas constitute both object-like representations of abstract knowledge,⁴⁶ as well as an unconscious and automatic information-processing system.⁴⁷ They function to classify and give structure to the substantive content of experiences,⁴⁸ build complex pyramids of thought based on a minimal input of data,⁴⁹ and permit human beings to immediately recall the items stored in their memory.⁵⁰ All environmental representations are schematic abstractions. There are object schemas, event schemas, narrative schemas, social schemas, cultural schemas,

40. A gestalt involves the psychological phenomenon of perceiving units of information as an integrated whole. See GARY B. PALMER, *TOWARD A THEORY OF CULTURAL LINGUISTICS* 291 (1996). The whole is simpler to grasp than the parts of the mental configuration. See MARK JOHNSON, *THE BODY IN THE MIND: THE BODILY BASIS OF MEANING, IMAGINATION, AND REASON* 41 (1987).

41. See Sloman, *supra* note 36, at 577.

42. Perhaps the most influential theory on the use of metaphors and metonymies can be found in the writings of George Lakoff and Mark Johnson. In general, they claim that metaphors are the devices by which the understandings gained from one domain of experience are projected onto another. GEORGE LAKOFF & MARK JOHNSON, *METAPHORS WE LIVE BY* 3–4 (1980). Knowledge of the workings of our own bodies acquired in daily living motivates the creation of mental images, specifically, bodily-based metaphors. See *id.* at 69–76. For example, because we sense that the body is a container, an object with an internal and an external spatial dimension, we metaphorically extend this experience to interpret other experiences—e.g., we walk *out* of a room and *into* another. For discussions related to the container image and its metaphoric projections, see JOHNSON, *supra* note 40, at 30–31; see also LAKOFF & JOHNSON, *supra*, at 98; and GEORGE LAKOFF, *WOMEN, FIRE, AND DANGEROUS THINGS: WHAT CATEGORIES REVEAL ABOUT THE MIND* 271–73 (1987).

43. See D'ANDRADE, *supra* note 34, at 122.

44. See *id.* at 122–23; KERTZER, *supra* note 36, at 79. Strauss and Quinn explain that the schematic architectural system is often called a “connectionist” or a “parallel distributed processing” model of cognition because the computer, designed to simulate this method of reasoning, consists of a series of weighted connections between units that work in conjunction with each other. See STRAUSS & QUINN, *supra* note 34, at 50–52 & 265 n.8. D'Andrade similarly provides a detailed description of a connectionist-based computer. See D'ANDRADE, *supra* note 34, at 136–41.

45. See D'ANDRADE, *supra* note 34, at 144–45.

46. See *id.* at 120, 179; KERTZER, *supra* note 36, at 79.

47. See D'ANDRADE, *supra* note 34, at 122, 136; LAKOFF, *supra* note 42, at 6.

48. See JOHNSON, *supra* note 40, at 18.

49. See D'ANDRADE, *supra* note 34, at 123–24, 136.

50. See *id.* at 144–45.

metaphorical image schemas, and so on.⁵¹ When relatively simple schematic units combine, a composite configuration is formed, which is perceived holistically, as a gestalt.⁵² Gaps in information, details, or features that are not present in what is seen, heard, or otherwise experienced, are filled in by context or normative expectations about "what goes with what."⁵³ Knowledge of the world is, thus, mediated by this categorical system that partly selects what is observed, decides the ways phenomena are perceived, and structures the information that has been conveyed.⁵⁴

Moreover, a strong conservative bias is built into our understanding because the schematic nature of our thoughts exerts a powerful restraint on our interpretive processes.⁵⁵ We reason through pre-given conceptual classifications and single out just a small segment of an entire universe of available data.⁵⁶ Although some schemas are flexible and easy to modify, well-organized and well-practiced schemas, solidified by frequent past experiences, are rigid, historically durable, and resistant to change.⁵⁷ Since it is cognitively efficient to rely on these deeply-entrenched and well-traveled networks of thought, new information, if in conflict with pre-established knowledge classifications, tends to be ignored.⁵⁸ Schemas are built out of encounters in the environment and, in the absence of past experiences to create and

51. See *id.* at 132.

52. See *id.* at 123, 134, 136; PALMER, *supra* note 40, at 291; STRAUSS & QUINN, *supra* note 34, at 53.

53. See D'ANDRADE, *supra* note 34, at 136. For example, consider the following statement: "John wanted to do well on the test, but his pen ran out of ink and his pencil broke." Because there is a *writing* schema in our minds, we instantaneously grasp the fact that running out of ink and not having a sharpened pencil lead to John not being able to write, even though this information is not explicitly provided. See *id.* at 125.

54. See KERTZER, *supra* note 36, at 79–80.

55. See *id.* at 80–81; see also MARY DOUGLAS, *PURITY AND DANGER: AN ANALYSIS OF THE CONCEPTS OF POLLUTION AND TABOO* 36–37 (1996).

56. See KERTZER, *supra* note 36, at 80.

57. See D'ANDRADE, *supra* note 34, at 142, 144–45. However, Strauss and Quinn emphasize the plasticity of schemas. They argue that, despite relatively stable cognitive networks, the meaning of a schematic formation depends on the context in which it is activated and that contexts continually shift. See STRAUSS & QUINN, *supra* note 34, at 54.

58. See KERTZER, *supra* note 36, at 80. Schemas activated by experience undergo physical changes that strengthen their connections. See STRAUSS & QUINN, *supra* note 34, at 90. When one of these neuron-like units is reactivated, it usually activates the other neurons in that particular group. See *id.* Schemas are thus self-reinforcing in that once a network of interconnected units has become well-established, it fills in missing and ambiguous features of encounters with the environment by firing all of the units, including those that have not been directly stimulated. See *id.* at 90–91. As a result, new interactions with the outside world tend to be interpreted in the same way as those that were experienced in the past. See *id.* at 90.

reinforce a schematic network, there is no pre-existing structure in which to store the data.⁵⁹ In contrast, rule-based serial symbolic knowledge, described as verbal, explicit, slow, and deliberate,⁶⁰ requires an arduous intentional processing of information on a conscious level and, as a result, is easier to change, inasmuch as it is less fixed in the mind.⁶¹

Cultural models, composed of schematic representations of implicit knowledge about a given society, are especially difficult to modify,⁶² yet at the same time, possess a sufficient amount of plasticity to permit us to adapt to various social settings and irregularities in the environment.⁶³ The following section addresses the development of one particular cultural model, the folk model of natural kinds, which is implicated in maintaining racism.

B. Natural Kinds Folk Models

Because knowledge is the product of a given culture's specific world views, all schematic representations of abstract knowledge, in this sense, are cultural constructs. A society's history, values, and institutional arrangements are a part of the environment; encounters with a structured environment transmit culture and stimulate the growth and reinforcement of schemata.⁶⁴ However, either a single schema or interrelated schemata can also form what is known as a cultural model: a more elaborate framework for storing organized units of complex social knowledge.⁶⁵ Cultural models, including common-sense folk models,⁶⁶ incorporate ideas about the way the world is be-

59. See KERTZER, *supra* note 36, at 80.

60. See D'ANDRADE, *supra* note 34, at 144, 180–81.

61. See *id.* at 144–45.

62. See *id.* at 178; SRAUSS & QUINN, *supra* note 34, at 54.

63. See Dorothy Holland & Naomi Quinn, *Culture and Cognition, in CULTURAL MODELS IN LANGUAGE AND THOUGHT* 6–7 (Dorothy Holland et al., eds., 1987).

64. See D'ANDRADE, *supra* note 34, at 122, 148–49. For related observations on the interaction between the external world and the internal functioning of schematic images, see JOHNSON, *supra* note 40, at 102.

65. See D'ANDRADE, *supra* note 34, at 151–52, 180.

66. Folk models consist of folk knowledge, the precursors of scientific knowledge. These models refer to self-evident beliefs about the world—historically taken for granted—that comport with common sense realism and intuition. Folk biology concerns naive unscientific classifications of plants and animals that people use in all parts of the world. See SCOTT ATRAN, *COGNITIVE FOUNDATIONS OF NATURAL HISTORY: TOWARDS AN ANTHROPOLOGY OF SCIENCE* 1–2, 67 (1990). For example, although a tree does not constitute a botanically valid taxon, most people presume a tree is a clearly defined botanical entity because it *looks* like it is one. See *id.* at 67, 269.

lieved to work in a given society, such as models of marriage,⁶⁷ the mind,⁶⁸ gender,⁶⁹ and motherhood.⁷⁰ Models function heuristically to build order out of a chaotic universe and, in so doing, both produce and reflect a culture's social meaning system and view of reality.⁷¹ These conceptual constructs are part of what Jack Balkin terms "cultural software" or cultural "know-how": the ideas, traditions, ideologies, and norms that stabilize a society and assure its continuation from one generation to another.⁷²

One important type of cultural folk model concerns classifications of animate objects. Anthropological and psychological studies have demonstrated that numerous individuals adhere to phenomenological realism: the tendency to classify living things into what are believed to be "natural" and "correct" taxonomies,⁷³ and to hold in one's mind a conceit that plants and animals possess a "natural" essence and constitute "natural kinds" of things.⁷⁴ In many cultures, there is a belief that tigers, for example, have a certain essence which makes them tigers, apart from their salient properties, like tails and stripes.⁷⁵ Because certain traits are thought of as the indexical signs of a plant or animal's "true" underlying nature,⁷⁶ taxonomic orderings of animate objects are presumed to be predetermined by the similarity in external morphological features.⁷⁷ Thus, a collie is apprehended

67. See Naomi Quinn, *Convergent Evidence for a Cultural Model of American Marriage*, in CULTURAL MODELS IN LANGUAGE AND THOUGHT 173 (Dorothy Holland et al., eds., 1987).

68. See D'ANDRADE, *supra* note 34, at 158-69.

69. See Dorothy Holland & Debra Skinner, *Prestige and Intimacy: The Cultural Models Behind Americans' Talk About Gender Types*, in CULTURAL MODELS IN LANGUAGE AND THOUGHT 78 (Dorothy Holland et al., eds., 1987).

70. See LAKOFF, *supra* note 42, at 74-76. Lakoff defines these elaborate cultural knowledge formations as "idealized cognitive models." *Id.* at 68.

71. For an analysis of cultural schemata, emphasizing that this domain of thought is where meaning creation occurs, see DAVID L. SHAUL & N. LOUANNA FURBEE, LANGUAGE AND CULTURE 204-05 (1998).

72. See J. M. BALKIN, CULTURAL SOFTWARE: A THEORY OF IDEOLOGY 57, 242 (1998). Needless to say, the cultural meaning of an object or an event is shared by those with similar histories. See STRAUSS & QUINN, *supra* note 34, at 82. Since different subcultures have dissimilar experiences, the way in which cognitive networks evolve and the interpretations of phenomena will vary. See *id.* at 83. Also, there are bound to be distinctions in cultural meanings within any given social group. See *id.* On the other hand, shared meanings exist to the extent that there are domains of common experiences. See *id.* The networks of connection among schematic units could, quite possibly, be similar, regardless of the variety in social understandings. See *id.* at 83-84.

73. See ATRAN, *supra* note 66, at 77-78; see also LAKOFF, *supra* note 42, at 118-19.

74. See D'ANDRADE, *supra* note 34, at 104, 176; see also LAKOFF, *supra* note 42, at 118-19.

75. See D'ANDRADE, *supra* note 34, at 176.

76. See ATRAN, *supra* note 66, at 78.

77. See *id.* at 80.

as a dog because its observable attributes—e.g., tail, nose, and bark—stantiate an essential “dogginess.”⁷⁸ Once dogs are classified in this manner, individual dogs who do not share all of the salient characteristics are, nevertheless, still included in the dog taxonomy because they share in the fundamental essence.⁷⁹ A dog born without legs remains a dog because, according to our ordinary way of thinking, all dogs are quadrupeds,⁸⁰ whereas a chair (an inanimate object) without legs is no longer a chair.⁸¹

Interestingly enough, these classification systems are quickly learned and seem to be a universal phenomenon.⁸² Even in cultures without an explicitly delineated natural kinds theory, it is likely there is an implicit natural kinds model influencing the reasoning of individuals on a non-discursive level.⁸³ There are several explanations of the origin of natural kind taxonomies and why they are internalized within a very short period of time. One school of thought argues that the human propensity to categorize according to natural kinds is genetic,⁸⁴ while another contends it is an entirely cultural phenomenon.⁸⁵ The most persuasive explanation is offered by the noted cognitive psychologist, Eleanor Rosch. Rosch maintains that folk taxonomies and natural essence theories are brought about through the observation of the most closely correlated attributes between various objects and the human ability to discern a pattern, as well as to group these attributes into a schematic configurational gestalt.⁸⁶ The perceived patterns are used to sort objects into different types of things.⁸⁷ Basic level objects⁸⁸ are formed out of these gestalt configurations of

78. See D'ANDRADE, *supra* note 34, at 93.

79. See *id.* at 176.

80. See *id.*; see also ATRAN, *supra* note 66, at 6.

81. See D'ANDRADE, *supra* note 34, at 104.

82. See ATRAN, *supra* note 66, at 70–71, 78.

83. See D'ANDRADE, *supra* note 34, at 177.

84. See ATRAN, *supra* note 66, at 65 (“Humans . . . are endowed with highly articulated cognitive faculties for ‘fast-mapping’ the world The ‘automatic’ taxonomic ordering of phenomenal species, like the spontaneous relational ordering of colors, would then be a likely product of one such faculty.”) (citation omitted).

85. See D'ANDRADE, *supra* note 34, at 177.

86. See *id.* at 117–18, 120, 177.

87. See *id.* at 120.

88. In general, basic level objects fit within a taxonomy as neither a superordinate nor a subordinate category:

Superordinate	Basic Level	Subordinate
Furniture	Table Chair	Kitchen table Kitchen chair
Tree	Oak Maple	White oak Silver maple

salient characteristics and serve as the prototypes—e.g., the best examples or the “cognitive representatives”—of particular categories.⁸⁹ The human capacity to automatically see patterns in nature, coupled with the proclivity to involuntarily classify what is observed in their surroundings, suggests folk models of natural kinds are shielded from rational criticism and logical argumentation precisely because the overall process is unconscious and the knowledge is implicitly gained.⁹⁰ Patterns predicated on patently obvious similarities in external characteristics are so easily observed that they appear to be a part of the inevitable order of things and nature’s way of organizing the world.

It should be noted that, even though natural kind folk taxonomies are ubiquitous, there is no classification system that is objectively the “true” or “natural” method for describing plants and animals. George Lakoff provides a stunning example of the arbitrary nature of classification systems and shows there are no “natural kinds” of species.⁹¹ He explains that none of the taxonomies used by evolutionary biologists are traditional or natural in the sense that species are not grouped according to their fundamental and sufficient properties. For one thing, we need objective criteria in order to determine which properties are the relevant ones, but no such standards exists.⁹² The various methodologies employed by evolutionary biologists in creating homogeneous groupings demonstrate that categories are not out there in nature, waiting to be discovered, but, rather, are created by the inventive faculties of scientists whose theoretical perspectives are, to a large extent, incommensurable.⁹³ Still, essentialism and the outmoded idea of a pre-existing order in nature continue to exercise a

See id. at 117; *see also* Brian H. Ross & Valerie S. Makin, *Prototype Versus Exemplar Models in Cognition*, in *THE NATURE OF COGNITION* 205, 225–27 (Robert J. Sternberg ed., 1999).

89. *See* D’ANDRADE, *supra* note 34, at 117–18, 120.

90. *See id.* at 178 (commenting that, because cultural models are built out of implicit knowledge, they are resistant to rational critiques).

91. *See* LAKOFF, *supra* note 42, at 121. Lakoff’s argument is principally based on STEPHEN JAY GOULD, *HEN’S TEETH AND HORSE’S TOES* 355–65 (1983). *See* LAKOFF, *supra* note 42, at 119–120, 185.

92. *See* LAKOFF, *supra* note 42, at 186. Some scientists employ the biological species concept in which classifications are based on morphological similarities, reproduction, adaptation to a specific ecological domain, and gene pools. *See id.* at 119. The phenetic species concept looks at overall similarities, whereas the cladistic method traces the evolutionary history of the derived attributes, yielding a taxonomy in which a lungfish is more closely related to a rhino than it is to a tuna. *See id.* at 119–20 (citing JAY GOULD, *HEN’S TEETH AND HORSE’S TOES* 365 (1983)).

93. *See id.* at 120–121, 186.

hold on the collective imagination.⁹⁴ Although we necessarily depend on the stability of schematized folk models, which, like all cultural models, allow us to comprehend and navigate the environment, these deeply-embedded, cognitive structures also limit our capacity to re-think our intuitive assumptions about phenomena and to reconceive reality. Furthermore, not only is there a tendency to group plants and animals according to their natural essence, human beings are also subjected to the very same kind of classification system.

C. Natural Kinds of Human Beings and the Inherent Capacity to Classify on the Basis of Color

Roy D'Andrade observes that natural kind theory lends itself to the generalization that what is believed to be true about plants and animals applies equally to human beings.⁹⁵ It is a short step from the notion that tigers and elephants are different natural kinds to the notion that there are natural kind distinctions among groups of people.⁹⁶ Also, numerous studies inform us that, due to our neurophysiology (specifically, in this case, the interaction of the retina with certain frequencies of light), there is an innate human capacity to differentiate basic colors (black, white, red, green, blue, and yellow), and to experience color categorization as a gestalt.⁹⁷ So, along with animal and plant taxonomies, color is another primary way of classifying the environment; indeed, sorting objects on the basis of color is a crucial, fundamental skill humans rely upon in countless ways during the course of daily living.

Certainly, awareness of differences in colorations is not, in itself, racist and has obvious and significant survival benefits (for instance, we need to distinguish red from green traffic lights). Nevertheless, because individuals automatically notice variance in color among objects in the world, including human beings, color distinctions might well be linked to and support the cultural folk model of natural kinds.⁹⁸ Thus, some individuals could still be susceptible to imagining

94. See *id.* at 121 (noting that some scientists convey the impression that they believe there is only one "correct" taxonomy).

95. See D'ANDRADE, *supra* note 34, at 178; see also ATRAN, *supra* note 66, at 78.

96. See D'ANDRADE, *supra* note 34, at 178.

97. See, e.g., PALMER, *supra* note 40, at 80–82; LAKOFF, *supra* note 42, at 24–30, 269–71. A historical analysis of basic color terms, basic color categories, and current theories on the relationship between color, culture, and neurophysiology can be found in SHAUL & FURBEE, *supra* note 71, at 75–76.

98. One interesting and important ethnographic study reports that, in Papua New Guinea, skin color has profound metaphysical implications in addition to signifying dis-

that the ancestral and genetic history of blacks is separate from the genealogy of whites,⁹⁹ with a corollary that color is the means by which a distinct hierarchy of human beings is manifested.¹⁰⁰ I hasten to add that a natural kinds folk model is not necessarily an inevitable entailment of the human capacity to classify colors. I also do not suggest that all white persons hold a race-based natural kinds model in their minds. Rather, I claim that color is very likely to be implicated in a folk model of natural kinds in a society such as ours, with a notable history of ideological racism. Recall that this folk model provided a basis for the justification of slavery.¹⁰¹ Nonetheless, although our culture lends itself to a racist natural kinds taxonomy, the workings of our cognitive processing system itself are partly responsible for the tendency to essentialize human beings. The reason is that human beings are unable to comprehend all features of reality.

The cognitive skill of grouping schemata together in order to build cultural models is indispensable to our ability to function in our surroundings. If forced to use serial symbolic logic, assimilating and responding to each and every event in our perceptual field of vision would take an inordinate amount of time and would be an overwhelmingly arduous undertaking.¹⁰² However, in relying on a cultural model to accelerate the processing of information, we sacrifice knowledge of many aspects of our environment.

inct types of human beings. See DON KULICK, LANGUAGE SHIFT AND CULTURAL REPRODUCTION: SOCIALIZATION, SELF AND SYNCRETISM IN A PAPUA NEW GUINEAN VILLAGE 160 (1992). After living in one village for about a month, the author, a white man, was told that he was a ghost. See *id.* at ix. The villagers believe that dark skin turns white upon death. See *id.* at 171. They also believe that, eventually, their dark skin will “buckle and crack” and that their new white skin will bring money, automobiles, roads, and factories—all the trappings of a white European society. *Id.* at 160. This metamorphosis is imbued with messianic overtones of Christianity. See *id.* It also provides the indigenous people with a coherent framework for understanding the impact of Western culture on their society. See *id.*

99. See ATRAN, *supra* note 66, at 7 (stating that the idea of an underlying essence could be extended to other domains, like human groupings, solidifying the intransigence of racism).

100. In a similar vein, Lawrence contends that the myth of racial inferiority continues to be a part of our cultural belief system, although it is no longer openly expressed. See Lawrence, *supra* note 12, at 374. For this reason, polls indicate that most whites do not consider discrimination to be the cause of black inequality. See *id.* In contrast, Appiah claims that, because of the Holocaust, racial essence theories now tend to be formulated in more modified forms, and a belief in the cultural inferiority of blacks has replaced the older model. See Appiah, *supra* note 7, at 83.

101. See *supra* note 7 and accompanying text.

102. For an explanation of the disadvantages incurred in using this style of reasoning, see *supra* notes 60–61 and accompanying text .

First, because it is cognitively efficient to categorize items as quickly as possible, our cognitive classification system serves to limit the characteristics that are taken into account in sorting a multitude of observable objects.¹⁰³ We are programmed to swiftly focus on only a few features that are considered salient, and we rely on these features to classify an entity.¹⁰⁴ Human beings are catalogued in this manner, and, thereby, are reduced to just a few of their many attributes.

Second, because we automatically differentiate between the colors of various phenomena, color has become a salient feature that determines an individual's place in the order of things. Once color becomes the focal point, it is not easy to see the numerous non-color based characteristics of an individual, the many attributes all persons share, and the uniqueness or the specialness of one specific human being.¹⁰⁵ Thus, the cognitive efficiency of our minds facilitates the division of human beings into separate color groupings; nonetheless, it is culture that ranks these groupings and establishes a hierarchy. Here, we see the workings of the interaction between cognition and culture: color-based categories of human beings, spontaneously produced through the activation of networks and schematic units, are thought to provide "scientific" proof of the existence of race as a "natural" phenomenon. Apparently, the cognitive advantage of being able to instantaneously engage in pattern-recognition tasks and form associations between entities is equally disadvantageous when it comes to basing distinctions on external morphological features that are encoded with negative social meanings.

Moreover, introducing a change in cognitive processing by either altering or erasing a folk model from consciousness is somewhat problematic in light of a model's durability and the degree to which it is constantly reinforced. In the following section, this Article sets forth the ways in which the interaction between culture and cognition works against the breakdown of a folk model generated by the doctrine of natural kinds. This section then shows how a model can be modified despite the stability of this highly complex schematic structure.

103. See KERTZER, *supra* note 36, at 81.

104. *See id.*

105. *See id.*

D. Reforming a Natural Kinds Folk Model: The Difficulties Encountered and the Catalysts That Inaugurate a Change

Because cultural models rest on neural-like schematic structures, they are extremely sturdy mental constructs that tend to be impervious to restructuring. When co-occurring features of experience repeatedly activate specific neuron-like units, they strengthen the connections between schematic units in a neural network.¹⁰⁶ In the future, if one of these units is fired, all the other units in that network are automatically simulated as well, thereby reinforcing the neural connections.¹⁰⁷ As such, once a cultural folk model is installed in the mind and reinforced through continual cultural imprinting, patterns of strong neural connections evolve that are not easily disturbed. Furthermore, exactly what is experienced in the social environment is a matter of interpretation, and our readings of the social scene tend to correspond with widely-shared cultural expectations. The belief in the inferiority of African-Americans is reinforced, thus strengthening the schematic networks that constitute the model simply by interpreting a social encounter in a manner that confirms the model's credibility.¹⁰⁸ When a teacher, for example, is already convinced that black students are not as intelligent as white students, mistakes in a spelling test, which would hardly be meaningful if committed by a white student, take on a significance if the student is black; the interpretation of the event corroborates the cultural expectation and solidifies the connections between the corresponding schemata that form the model.¹⁰⁹

Beliefs in a racist folk model of natural kinds also produce the sort of behavior that forecloses the possibility of altering the initial determination of inferiority. This is because a schematically-structured stereotype about a group of people tends to induce self-reinforcing behavior.¹¹⁰ For instance, if white children are raised in an atmosphere in which relatives, peers, and other authority figures transmit negative attitudes concerning the genetic inferiority of African-Americans, they are likely to avoid associating with blacks as adults.¹¹¹ In turn, the lack of social interactions will result in fewer opportunities

106. See STRAUSS & QUINN, *supra* note 34, at 90.

107. See *id.*

108. See *id.* at 90–91.

109. A related hypothetical is presented by Strauss and Quinn involving the reinforcement of negative stereotypes. See *id.* at 91.

110. See *id.* at 90–91.

111. See *id.* at 91.

for the children to discover that the original premise is false.¹¹² Exposure to certain experiences, inconsistent with an individual's expectations, can evoke powerful emotional responses that lead to a large-scale change in the existing racist cultural models.¹¹³

In addition, a negative cultural stereotypical representation of a social group in a widely-shared folk model has a detrimental affect on the group's members and can become a self-fulfilling prophecy. Psychological studies demonstrate that African-Americans perform less well than whites on verbal tests if they are told that the test is an indicator of intellectual ability.¹¹⁴ On the other hand, if this information is not provided, the black and white performance rates are the same.¹¹⁵ The obvious interpretation of this statistical finding is that African-Americans are less able to concentrate on the test because of their concern that their scores will confirm their negative stereotype (a stereotype which need not even be internalized) and that they will be judged accordingly.¹¹⁶ Indeed, the ensuing disparity in test scores reinforces the stereotype; those who are white and evaluate the results conclude that there must be an underlying truth to the old adage that blacks are by nature mentally inferior to whites.¹¹⁷

Along with self-reinforcement and self-fulfilling prophesies, one of the most important reasons for the strength and endurance of a natural kinds folk model has to do with the nature of connectionist-based reasoning. As previously stated, unlike serial symbolic reasoning, involving conscious deliberations and rule-based logical inferences, connectionist reasoning is largely unconscious and consists of the formation of strong associations between schematic units and the building of cultural models.¹¹⁸ Recall that new information, at odds with pre-existing knowledge constructs, is likely to be overlooked if there is no pre-existing schematic framework to receive the data.¹¹⁹ Hence, the teacher who is already predisposed to see blacks as mentally inferior to whites easily absorbs information about the spelling

112. *See id.*

113. *See id.* at 98-99 (claiming that, at times, experiences are powerful enough to induce a change, and that some experiences are very likely to modify stereotypes).

114. *See id.* at 92; *see also* Stephen J. Ceci et al., *Laboratory Versus Field Approaches to Cognition*, in *THE NATURE OF COGNITION*, 385, 398-99 (Robert J. Sternber ed., 1999).

115. *See* STRAUSS & QUINN, *supra* note 34, at 92; *see also* Ceci et al., *supra* note 114, at 399.

116. *See* STRAUSS & QUINN, *supra* note 34, at 92; *see also* Ceci et al., *supra* note 114, at 398-99.

117. *See* STRAUSS & QUINN, *supra* note 34, at 92.

118. *See supra* note 43 and accompanying text.

119. *See supra* notes 58-59 and accompanying text.

mistakes of one black student, but could be totally unaware of another black student in the class who has never made a mistake in spelling. Also recall that the implicit knowledge contained in cultural models tends to be unaffected by logical analysis because natural kind categories are unconsciously created and appear to be a part of nature's workings.¹²⁰ Demonstrable scientific evidence discounting race as a biological category and well-documented proof of the similarities between human beings¹²¹ affects only the surface level of cognition. This information does not reach the deep mental substrata where the taken-for-granted, self-evident knowledge contained within the model can be found. It is hardly surprising then, that sophisticated scholarly theories, as well as the formal laws and informal social norms aimed at abolishing racist ideas and practices, have been less than successful. Overcoming racism could well require finding a way to dislodge the cognitive biases in the minds of whites.¹²²

Still, a racist cultural model is not entirely immune from change. Knowledge acquired through serial symbolic processing changes more rapidly,¹²³ but even a schematic knowledge structure can break down over time. Old schemas are occasionally revised or rejected, and new ones are formed, if there is sufficient exposure to novel exper-

120. See *supra* note 90 and accompanying text.

121. See, e.g., Amy Gutmann, *Responding to Racial Injustice*, in K. ANTHONY APPIAH & AMY GUTMANN, *COLOR CONSCIOUS: THE POLITICAL MORALITY OF RACE* 114–15 (1996) (citing to various sources and stating that “[s]cientists calculate the average genetic difference between two randomly chosen individuals is .2 percent . . . of the total genetic material”).

122. Some scientists rely on implicit folk knowledge of natural kinds and, in addition to scientific knowledge, this older tradition of common sense interpretations of phenomena influences their choice of a research agenda. I suspect that the findings set forth in *The Bell Curve*, that there is a statistical correlation between genetics and intelligence which purportedly proves the innate intellectual inferiority of the black race, is one notorious example of how a natural kinds episteme can direct the selection of a topic and encourage the use of a result-driven methodology. See RICHARD J. HERRNSTEIN & CHARLES MURRAY, *THE BELL CURVE: INTELLIGENCE AND CLASS STRUCTURE IN AMERICAN LIFE* 269–70, 298 (1994). Surely, any theory claiming the existence of inherent cognitive differences amongst ethnic groups comes perilously close to a natural kinds philosophy. See Michael Stern, *A Dystopian Fable*, in *THE BELL CURVE DEBATE: HISTORY, DOCUMENTS, OPINIONS* 115, 117 (Russell Jacoby & Naomi Glauberman eds., 1995). The author states, “At the beginning of the Industrial Revolution . . . the Victorians began to wonder if the new urban poor . . . constituted a breed apart from ‘normal’ humanity. *The Bell Curve* really operates on this level.” *Id.* at 117. The popularity of this book, and the fact that one of its authors played a prominent role in public policy-making decisions concerning welfare reform, indicate the degree to which our culture remains committed to a race-based natural kinds ontology. See Horsburgh, *supra* note 7, at 565.

123. See *supra* note 61 and accompanying text.

iences that stimulate the growth of alternative constructs.¹²⁴ Change is also brought about when there is a sharp disjunction between perceptions and the knowledge classifications that have been schematized in the mind.¹²⁵ Similarly, a model can undergo a transformation when the actions taken in response to an interpretation of an event lead to unanticipated and undesirable consequences.¹²⁶ Furthermore, the affective content of an experience plays a motivating role in terms of either reinforcing or challenging a preconceived stereotype in a schematic construct.¹²⁷ The participation in or observation of some events or activities can so upset one's settled convictions about a social group that it arouses a strong emotional reaction which can accelerate the process by which a cultural schema is reformed.¹²⁸ Finally, it is possible to make a deliberate and conscious effort to revise one's previous opinion and adopt a more tolerant point of view.¹²⁹

Strauss and Quinn provide us with a relevant example of how a change in a schematic structure can occur.¹³⁰ Consider a woman who is a middle-class, white suburbanite and has had little experience with inner-city blacks.¹³¹ Alone in a strange city, she is approached by a black man in shabby clothes.¹³² Because the woman associates black males with violence, she becomes afraid and quickly runs down the street.¹³³ In point in fact, the man thought she looked lost and had stopped to ask if she needed directions.¹³⁴ If the woman had not fled but had waited to hear what the man had to say, the negative stereotype in her mind might have been overturned just by this powerful experience. While some individuals are more open to altering their preconceived ideas than others, at times, schema-inconsistent behavior can be so markedly distinct from cultural expectations that it evokes responses which block the activation of old associations and initiate the formation of new ones.¹³⁵ Fortunately, the mind is adapta-

124. See KERTZER, *supra* note 36, at 81-82; see also STRAUSS & QUINN, *supra* note 34, at 98-99 (stating "schema-inconsistent behavior" is markedly noticeable as well as memorable, and thus is very likely to initiate a change in a cultural stereotype).

125. See KERTZER, *supra* note 36, at 81-82.

126. See *id.*

127. See STRAUSS & QUINN, *supra* note 34, at 98-99.

128. See *id.* at 99.

129. See *id.* at 100-01.

130. See *id.* at 91, 99.

131. See *id.* at 91.

132. See *id.*

133. See *id.*

134. See *id.*

135. See *id.* at 98-99.

ble, and culture does not necessarily determine all that we think and know about the world; culture is not a "perceptual veil" between reality and experience, conditioning our understandings to such an extent that we are unable to rethink our habitual responses.¹³⁶

Conclusion

The fact that cultural forces do not preclude our possibilities for change gives us hope that we can build up new cultural models regarding the commonality of humankind that act as countervailing forces against the predisposition to derogatorily categorize specific groups of people. What is further needed is the formulation of a new experiential gestalt in the minds of whites: a schematic cluster in which units of information about certain prevailing social arrangements are labeled racist, notwithstanding the absence of intentionality on the part of those who are involved in the activities that are subject to scrutiny. In fact, the very endurance of existing schematic constructs augurs that the new more tolerant models about human beings that eventually take root in the mind will be sturdy enough to withstand the pressure of the past.

However, we need not passively await the emergence of a change in cultural models. Cognitive studies have informed us that models are experientially based, evolving out of recurrent social events and activities. Cognitive findings also have demonstrated that logical serial symbolic reasoning is not necessarily an effective or suitable tool to use in attempting to eliminate racist habits of thought. It seems clear, then, that a practice-based methodology, as opposed to a theoretical perspective or an analytical argument, is the appropriate strategy we should adopt to combat racism. Specifically, we should find ways to encourage frequent and regular interactions between blacks and whites so as to initiate the formation and reinforcement of more positive cultural models. This micro-centered approach focuses on the creation of concrete and localized forms of integration: the building of microsociological structures in which African-Americans and whites come together on an everyday basis to pursue common goals and interests in conveniently-located, informal settings. For example, we should encourage the growth of more integrated civic associations that are concerned with improving the community and providing various kinds of services. Organizing integrated fund-raising events for local charities and coalitions to press for the preservation of the

136. See D'ANDRADE, *supra* note 34, at 149.

environment, or historical sites and buildings, could also be effective in promoting contacts between social groups. These types of collective engagements where people participate in ordinary community-related projects can lead to significant changes in social attitudes. The silent voice of prejudice that finds expression in a folk model can be countered by actions more than words—actions that foster bonds of solidarity between human beings who, after all, share the very same architectural structure in their minds.

