

ON HUMAN NATURE

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David Landis Fick, *Narcissus*, 1977

The Stranger

The infant at birth is barely a social creature. You can tickle and coo and bounce and sing and make yourself look ridiculous with all sorts of funny faces, and the baby will go on taking its own counsel, a little Eastern philosopher serenely detached from you. Yet by the third or fourth month, the same baby will be a lively companion, smiling back at your silly face and gazing into your eyes with those prolonged soupy looks that make life and diapers seem worthwhile. And still another profound change in sociability is coming. Frequently, it is first noticed by grandparents, who nowadays may see the baby for only a few days several times a year. The grandmother who visits at four or five months and again at nine or ten may be in for an unpleasant surprise: the baby who gazed and grinned and giggled a few months earlier now turns and squirms away, crying.

Fear of strangers, stranger anxiety, and eight-months anxiety are some of the names given to the result of this metamorphosis. In some infants, there is overt fear—immediate gaze aversion, withdrawal, and crying; in others, it is closer to wariness. But every child becomes more discriminating. Its circle of trust, which once opened broadly, encompassing virtually everyone, has steadily narrowed.

People who are not well known or, at least, not remembered may, despite past intimacies, become personae non gratae.

Twenty years later, the circle of trust may have broadened somewhat, but it is unlikely ever to regain its former scope. Firmly ensconced in the adult's repertoire of social responses will be xenophobia—the fear, or even contempt of strangers. Whether drawn along the axis of race, religion, or politics, the “we-they” dichotomy is a fundamental part of us. We partition society into insiders and outsiders, as if our minds insisted on dividing everything by two. Like the eight-month-old infant, we experience these polar categories so deeply that we resist, at least unconsciously, every rational attempt to perceive the world as complexly as it deserves. The psychoanalyst Erik Erikson coined the term *pseudospeciation* to cover this ubiquitous piece of stubbornness. It is as if we rejected out of hand the notion of unity of the species, setting up in its place a thousand egregious dichotomies, reflecting one another harshly and repetitively, like images in a vast hall of mirrors.

If it seems natural that humans should so categorize the world, we need to look back on the time when they didn't. Something has changed in the baby's

mind during the seventh, eighth, or ninth month. According to one older, psychoanalytic idea, eight-months anxiety is evoked by a fantasy that the stranger might replace the mother. This theory seems to have little to recommend it, but it is true that at around eight months, when the fear of strangers is activated, so is the fear of separation. Signs of attachment to the mother (or other primary caretaker) become manifest, and her departure evokes protest in infants who would not have been fazed when they were younger and more socially serene. Notwithstanding individual variation, the percentage of infants who cry when the mother leaves, or who show distress when a stranger appears, rises in all populations between six and twelve months of age.

What seems to be happening—as indicated by other changes in behavior—is a metamorphosis in the emotional landscape; once flat and dull, it now becomes dramatically uneven. Among other changes, the familiar acquires a more positive affective valence, and the strange acquires a more negative one. The fearful face that emerges during the second half-year of life as a frequent reaction to strangers varies little across cultures: the corners of the mouth are retracted and turned downward; the brows are raised

and straightened as the skin between them is furrowed; the eyes widen.

The only facial expression often mistaken for fear is that of surprise. This is one among many bits of evidence that there may be a continuum from attention, through surprise, to fear. Low-level electrical stimulation of the amygdala in the brain of a cat produces attentiveness, whereas turning up the current at exactly the same site produces fear. And a great deal of evidence from the study of infants indicates that a stimulus partly but not completely different from familiar stimuli can elicit attention (as indicated by prolonged visual fixation, heart rate deceleration, and other signs) in some situations and fear (crying and withdrawal) in others not very different. The suggestion is that our brains, even in infancy, are set up to notice discrepancy and to focus on it until it is assimilated—absorbed into a framework in which it begins to make sense, to take its place among the already known. If the focusing does not produce assimilation, something may be wrong, and we had better shift gears from attention to fear. This may be the basis of all our learning about the world.

Why does such discrimination not appear until six to nine months after birth? Neurology offers some clues. The brain doubles in volume during the first year of life, reaching about sixty percent of its adult size. Dendrites form and branch, axons grow, connections among neurons appear in ever expanding numbers, and myelination—through which a tight fatty sheath forms around the axon, greatly improving the conductive properties of the nerve—occurs. Two of the more important pathways that begin to myelinate during the second half-year of life are the fornix and the mamillothalamic tract—parts of the limbic system, which plays a major role in the mediation of emotions. One widely accepted notion is that the fornix—a massive bundle of fibers, about the size of the optic nerve—reports discrepancy from the hippocampus, where perceptual mismatches are detected, to the hypothalamus, which may be the seat of our emotions. There we assign a valence, an emotional significance, to the discrepancy. So, just as the infant is metamorphosing into a complex and rather intense emotional creature, the brain is changing in ways that could plausibly underlie this development.

It is a sad irony that *discrimination* means both sophisticated detection of variety in the world and injurious distinguishing among human beings. Studies of prejudice among children show that awareness of racial and other ethnic differences begins in nursery school and increases steadily with age. It can sometimes be mitigated—through racial intermingling,

among other experiences—but never abolished. By adolescence, racial awareness is intense, and the tendency to remain with one's "own kind" is pronounced. The desire, during young adulthood and thereafter, to avoid association with people different from oneself occurs in all populations, in all social classes, in all countries. What was once fear is now closer to contempt, but the behavioral response of avoidance is similar, and the possibility of an underlying continuum of emotion—and of neurological substrate—is real.

During my years in Africa, I was struck deeply by the ubiquity of prejudice. The !Kung San—racially quite different from the neighboring Bantu peoples, who are larger and darker skinned—were objects of utter contempt. "Bloody Bushman" was one of the milder epithets. Discrimination, of course, does not require marked racial differences. The !Kung were contemptuous of neighboring groups of !Kung with slightly different accents. And as I traveled through Africa, I found that what appeared to be strictly political conflicts almost always concealed ethnic ones. Today, in Zimbabwe, the conflict between Robert Mugabe and Joshua Nkomo, the leading political figures, is a conflict between the Shona and the Ndebele, ancient tribal rivals. In Uganda, beneath the political complexities, the real struggles are tribal, among the Ganda, the Acholi, and the Lango, who have been hostile toward one another for many generations.

It is no different outside Africa: Sikhs, Muslims, and Hindus in India; Sunni and Shi'ite Muslims in much of the Middle East; Jews and Arabs in Israel; Catholics and Protestants in Ireland; blacks and whites in America. Ethnocentrism—the belief that your group is better than the other guy's—was not invented by the Greeks with their barbarians or by the Jews with their Gentiles or by the Christians with their heathens but independently, again and again, by every population in the world.

The universality of ethnocentrism gives it the aspect of a genetically based trait, and it has been hypothesized as such by many observers. Apart from the universality itself—always suggestive of a biological predisposition—there is little evidence one way or the other. Studies of infant twins suggest substantial genetic influence on the development and intensity of fear, but the links between this phenomenon and xenophobia in adults are conjectural.

Still, one can conceive of evolutionary scenarios in which the genetic roots of ethnocentrism would be adaptive (though, as always in these just-so stories, adaptation must be seen as selectively biased

but morally neutral—sensitive to the calculus of survival and reproduction but numb to accompanying questions of right and wrong). Throughout our history, the attention-surprise-fear continuum must have served well as a mechanism for warily assimilating the new. For infants especially, flight to the mother at the sight or sound of something strange but *not* readily assimilated must have been an effective protection against predation. It is possible that this is the whole adaptive story—that the adult form of xenophobia is simply an epiphenomenon of the infant adaptation, that the advantages in infancy may have outweighed any disadvantages of adult intolerance.

But it is equally possible that the adult form was independently adaptive and, with a kind of morbid elegance, made use of an existing neurological mechanism well suited to its expression. As protohumans evolved, with their increasing sense of group identity and their willingness to behave, in concert, in ways specifically damaging to outsiders (one can see such tribal hostility even among chimpanzees), xenophobic responses must have grown in value on the evolutionary marketplace. Xenophobia in adjacent groups would have been mutually reinforcing, both in the short run (by eliciting hostile responses) and in the long run (by favoring the natural selection of underlying genetic dispositions). Increasingly, the risks inherent in dividing the world into "us" and "them" would have become preferable to the risks accompanying compromise. Add to this the general human tendency to perceive the world—inanimate, social, or spiritual—in terms of dualities, and you have a cognitive infrastructure on which ethnocentrism can readily build.

Sadly, the fear of strangers is not completely unfounded. When two enemies fear one another enough, they begin to behave in ways that threaten, and then it is difficult to separate the real from the imagined threat. In each society, the most articulate among the fearful, the most vigorous among the contemptuous, legitimize their counterparts in the other. Nationalism—which Toynbee called new wine in the old bottles of tribalism—becomes the norm. Patriotism, not in the subtle version of knowledgeable national pride but in the crude version of bigotry, comes to be viewed as virtuous. And the limbic system's circuitry of fear and "discrimination," first activated at eight months of age, ignites now with the strange spark of international hatred, becoming the fuse of absolute disaster. ●

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