

For years scientists have

debated this question. On one side are those who hold that the human infant is largely a blank slate, waiting to be written on. According to them, the kind of person a baby becomes is determined almost entirely by environment. The most famous statement of this position came from the American psychologist John B. Watson (1878–1958). "Give me a dozen healthy infants," Watson wrote, "... and my own specific world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—a doctor, lawyer, artist, merchant, chief, yes even a beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and the race of his ancestors" (Watson, 1925/1970, p. 104).

On the opposite side of this issue are those who argue that many human behaviors have strong biological roots. According to this view, experience can modify these behaviors somewhat, but it seldom can change them completely. The most recent version of this perspective comes from a group of scientists known as *sociobiologists*. Sociobiologists hold that just as humans have evolved certain physical characteristics that give them a survival advantage (such as a large brain and very deft fingers), so have they also evolved certain behavioral traits that help them survive and flourish. One example sociobiologists cite is the avoidance of incest, which is prohibited in virtually every human society (E. O. Wilson, 1978). Sociobiologists reason that because inbreeding tends to produce inferior offspring, natural selection has favored people who avoid sexual relations with close kin. The transmission of this avoidance behavior through thousands of generations has resulted in making the incest taboo a cultural universal. This universally shared element of culture, sociobiologists claim, is an instinct based on genes (the unit of heredity).

But most sociologists reject the more extreme claims of sociobiologists. Many point to the fact that the boundaries of incest taboos vary widely among societies. First cousins can legally marry in some societies but not in others. Another objection is the rapid way in which social behavior can change, sometimes transforming itself completely from one generation to the next. For example, under the influence of Christian missionaries, some Polynesian peoples gave up their uninhibited sexual ways and took up premarital chastity. How could this happen if sexual mores were largely genetically based? It is more reasonable to assume that such social behaviors are *created* by people and passed on in their culture because they help them adapt to environmental situations and to human biology. Environmental pressures, in short, tend to encourage different forms of human social action.

Does this mean that genes play no role whatsoever in the development of our social behavior? No, of course not. It simply means that genes never completely dictate how humans act toward one another. Rather, genes enable a range of *possible* responses on which the environment works to help determine which of many potential behaviors will ultimately be adopted. In the following section we take a closer look at this critical interaction of genes and environment.

The Interaction of Heredity and Environment

The best examples of how genetic potential interacts with environment to give rise to human social behavior can be seen in the development not of *shared* behavior patterns but rather of the *distinctive* styles of social interaction that each of us possesses, our so-called personalities. People come into the world with behavioral predispositions—known as *temperaments*—which many researchers think are largely genetic in origin (Smolak, 1986). From the first days of life, babies differ in their activity levels, "soothability," "talkativeness," attention spans, fearfulness in new situations, and frequencies of positive and negative emotions (Bates, 1987; Rothbart, 1986).

These behavioral predispositions do not dictate what a child becomes. In fact, as a general rule, these patterns of infant temperament do not remain stable as a baby grows older, suggesting that many environmental influences subsequently act upon them (Belsky, Fish, and Isabella, 1991). Some of these environmental influences stem from the traits of the adults who care for a child. For instance, confident, easygoing parents will help to make a fussy baby calmer by being patient and soothing in their caregiving style. In contrast, parents who are anxious and under a great deal of stress will probably do just the opposite. At the same time, an infant's own behavior influences the behavior of adults. The "talkative," cheerful infant, for example, tends to elicit positive attention from others, whereas the cranky, easily distracted baby may not. The result is a complex interplay of genes and environment that gives rise to a child's characteristic ways of responding. Figure 5.1 gives another good example of how environment interacts with inherited potential to give rise to a person's level of intelligence, as measured by IQ tests.

A similar interaction of genes and environment occurs in the development of *shared* patterns of social behavior—that is, in the development of culture. For example, humans have a biological potential for developing a complex spoken system of communication (we have the vocal ap-

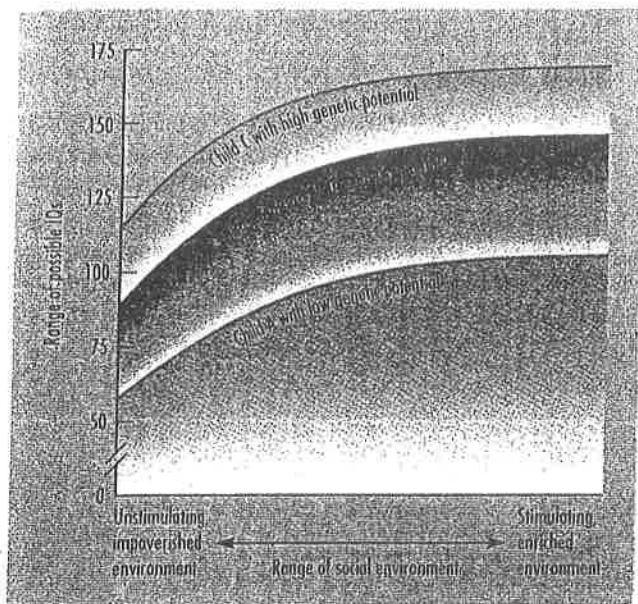


FIGURE 5.1 / The Interaction of Inherited Potential and Social Environment

Although inherited potential establishes the range of socialization, social environment greatly affects the extent to which inherited potential can be realized. This is particularly true for child "C," who has the greatest potential range of the three children in the figure above. With an impoverished environment, a child "C" might develop less than a child "A" who has an advantageous environment.

paratus to produce a wide variety of speech sounds and the large, highly developed brains required to create a language's vocabulary and syntax). However, the particular language that a people develop is by no means innate. It depends on various aspects of the world in which they live. (For instance, Americans wouldn't have coined such words as *transistor* and *tomography* if our society had not developed into a very technologically advanced one.)

Similarly, humans seem endowed with a biological tendency to form "pecking orders" of some kind, but the particular hierarchy of positions they establish is largely shaped by their social structure, power relations, and culture. For instance, the legacy of slavery left the United States with a racist culture that included a rigid division between dominant whites and subordinate blacks in the late nineteenth century. Those in power encouraged even the lowest-status whites to think they were better than blacks. But there was also a hierarchy among whites. As the most recent immigrants at that time, the Irish generally found themselves at the bottom of the white group.

Another example of the heredity–environment connection can be seen in marriage customs. Humans seem to have a biological inclination to form mating pairs of some kind. However, the specific norms that surround these unions depend on social forces. (The practice of polyandry, for instance, in which one woman is simultaneously married to two or more men, tends to occur in societies where, for one reason or another, men significantly outnumber women.)

Genes, then, never rigidly determine how people behave. Instead, what we inherit at birth is a set of developmental *possibilities*, all of which are then shaped by the world in which we live. Human patterns of social behavior are not inborn and fixed. They are constantly open to change through environmental influences. It is these environmental influences on behavior that sociologists study and that are central to the process of socialization.

Socialization through the Life Course

Socialization is particularly important during childhood. Without it at this early stage of life, we would not become social beings. No social scientists would raise an infant without socialization—that is, in total isolation from other people—just to find out what kind of person that child would become. Some people, however, suffer extreme neglect, spending their early years almost completely alone. These people provide dramatic natural evidence about the importance of childhood socialization (Curtiss, 1977).

One such person was Anna, the illegitimate and unwanted child of a farmer's daughter (K. Davis, 1949). After trying unsuccessfully to place her in a foster home or an institution, Anna's mother confined her to a windowless room in the attic. She fed the child enough milk to keep her alive, but rarely talked to her and never cuddled or played with her. This appalling neglect continued for five years. When social workers discovered Anna, she was so apathetic they thought she was deaf, mentally retarded, or both. She did not walk or talk. She didn't know how to dress or feed herself, or even how to chew. She never laughed or cried. Observers felt that there was something inhuman about her. And there was. Anna's socialization did not begin until the age of six, when she was placed in a foster home. With care and attention, she slowly began to talk, walk, run, and play with other children. She also began learning how to take care of herself. In other words, she began to develop human interests and abilities.