

BIOLOGIST E.O. WILSON ON WHY HUMANS, LIKE ANTS, NEED A TRIBE

BY E. O. WILSON ON 4/2/12 AT 1:15 AM EDT

Have you ever wondered why, in the ongoing presidential campaign, we so strongly hear the pipes calling us to arms? Why the religious among us bristle at any challenge to the creation story they believe? Or even why team sports evoke such intense loyalty, joy, and despair? The answer is that everyone, no exception, must have a tribe, an alliance with which to jockey for power and territory, to demonize the enemy, to organize rallies and raise flags.

And so it has ever been. In ancient history and prehistory, tribes gave visceral comfort and pride from familiar fellowship, and a way to defend the group enthusiastically against rival groups. It gave people a name in addition to their own and social meaning in a chaotic world. It made the environment less disorienting and dangerous. Human nature has not changed. Modern groups are psychologically equivalent to the tribes of ancient history. As such, these groups are directly descended from the bands of primitive humans and prehumans.

The drive to join is deeply ingrained, a result of a complicated evolution that has led our species to a condition that biologists call *eusociality*. “Eu-,” of course, is a prefix meaning pleasant or good: euphony is something that sounds wonderful; eugenics is the attempt to improve the gene pool. And the eusocial group contains multiple generations whose members perform altruistic acts, sometimes against their own personal interests, to benefit their group. Eusociality is an outgrowth of a new way of understanding evolution, which blends traditionally popular individual selection (based on individuals competing against each other) with group selection (based on competition among groups). Individual selection tends to favor selfish behavior. Group selection favors altruistic behavior and is responsible for the origin of the most advanced level of social behavior, that attained by ants, bees, termites—and humans. Among eusocial insects, the impulse to support the group at the expense of the individual is largely instinctual. But to play the game the human way required a complicated mix of closely calibrated altruism, cooperation, competition, domination, reciprocity, defection, and deceit. Humans had to feel empathy for others, to measure the emotions of friend and enemy alike, to judge the intentions of all of them, and to plan a strategy for personal social interactions.

As a result, the human brain became simultaneously highly intelligent and intensely social. It had to build mental scenarios of personal relationships rapidly, both short term and long term. Its memories had to travel far into the past to summon old scenarios and far into the future to imagine the consequences of every relationship. Ruling on the alternative plans of action were the amygdala and other emotion-controlling centers of the brain and autonomic nervous system. Thus was born the human condition, selfish at one time, selfless at another, and the two impulses often conflicted.

Today, the social world of each modern human is not a single tribe but rather a system of interlocking tribes, among which it is often difficult to find a single compass. People savor the company of like-minded friends, and they yearn to be in one of the best—a combat Marine regiment, perhaps, an elite college, the executive committee of a company, a religious sect, a fraternity, a garden club—any collectivity that can be compared favorably with other, competing groups of the same category.

Their thirst for group membership and superiority of their group can be satisfied even with symbolic victory by their warriors in clashes on ritualized battlefields: that is, in sports. Like the cheerful and well-dressed citizens of Washington, D.C., who came out to witness the First Battle of Bull Run during the Civil War, they anticipate the experience with relish. The fans are lifted by seeing the uniforms, symbols, and battle gear of the team, the championship cups and banners on display, the dancing seminude maidens appropriately called cheerleaders. When the Boston Celtics defeated the Los Angeles Lakers for the National Basketball Association championship on a June night in 1984, the mantra was “Celts Supreme!” The social psychologist Roger Brown, who witnessed the aftermath, commented, “The fans burst out of the Garden and nearby bars, practically break dancing in the air, stogies lit, arms uplifted, voices screaming. The hood of a car was flattened, about thirty people jubilantly piled aboard, and the driver—a fan—smiled happily ...It did not seem to me that those fans were just sympathizing or empathizing with their team. They personally were flying high. On that night each fan’s self-esteem felt supreme; a social identity did a lot for many personal identities.”

Experiments conducted over many years by social psychologists have revealed how swiftly and decisively people divide into groups and then discriminate in favor of the one to which they belong. Even when the experimenters created the groups arbitrarily, prejudice quickly established itself. Whether groups played for pennies or were divided by their preference for some abstract painter over another, the participants always ranked the out-group below the in-group. They judged their “opponents” to be less likable, less fair, less trustworthy, less competent. The prejudices asserted themselves even when the subjects were told the in-groups and out-groups had been chosen arbitrarily.

The tendency to form groups, and then to favor in-group members, has the earmarks of instinct. That may not be intuitive: some could argue that in-group bias is conditioned, not instinctual, that we affiliate with family members and play with neighboring children because we're taught to. But the ease with which we fall into those affiliations points to the likelihood that we are already inclined that way—what psychologists call “prepared learning,” the inborn propensity to learn something swiftly and decisively. And indeed, cognitive psychologists have found that newborn infants are most sensitive to the first sounds they hear, to their mother's face, and to the sounds of their native language. Later they look preferentially at persons who previously spoke their native language within their hearing. Similarly, preschool children tend to select native-language speakers as friends.

The elementary drive to form and take deep pleasure from in-group membership easily translates at a higher level into tribalism. People are prone to ethnocentrism. It is an uncomfortable fact that even when given a guilt-free choice, individuals prefer the company of others of the same race, nation, clan, and religion. They trust them more, relax with them better in business and social events, and prefer them more often than not as marriage partners. They are quicker to anger at evidence that an out-group is behaving unfairly or receiving undeserved rewards. And they grow hostile to any out-group encroaching upon the territory or resources of their in-group.

When in experiments black and white Americans were flashed pictures of the other race, their amygdalas, the brain's center of fear and anger, were activated so quickly and subtly that the centers of the brain were unaware of the response. The subject, in effect, could not help himself. When, on the other hand, appropriate contexts were added—say, the approaching African-American was a doctor and the white his patient—two other sites of the brain integrated with the higher learning centers, the cingulate cortex and the dorsolateral prefrontal cortex, lit up, silencing input through the amygdala. Thus different parts of the brain have evolved by group selection to create groupishness, as well as to mediate this hardwired propensity.

When the amygdala rules the action, however, there is little or no guilt in the pleasure experienced from watching violent sporting events and war films in which the story unwinds to a satisfying destruction of the enemy. The horrors make the fascination. War is the strong life; it is life *in extremis*. Literature and history are strewn with accounts of what happens at the extreme, as in the following from Judges 12: 5–6 in the Old Testament: the Gileadites captured the fords of the Jordan leading to Ephraim, and whenever a survivor of Ephraim said, “Let me go over,” the men of Gilead asked him, “Are you an Ephraimite?” If he replied, “No,” they said, “All right, say ‘Shibboleth.’?” If he said “Sibboleth,” because he could not pronounce the word correctly, they seized him and killed him at the fords of the Jordan. Forty-two thousand Ephraimites were killed at that time.

Research has shown that tribal aggressiveness goes well back beyond Neolithic times. And there is a good chance that it could be a much older heritage, dating beyond the split 6 million years ago between the lines leading to modern chimpanzees and to humans, respectively.

The patterns of collective violence in which young chimp males engage are remarkably similar to those of young human males. Aside from constantly vying for status, both for themselves and for their gangs, they tend to avoid open mass confrontations with rival troops, instead relying on surprise attacks. The purpose of raids made by the male gangs on neighboring communities is evidently to kill or drive out its members and acquire new territory. The entirety of such conquest under fully natural conditions has been witnessed by John Mitani and his collaborators in Uganda's Kibale National Park. The chimp war, conducted over 10 years, was eerily humanlike. Every 10 to 14 days, patrols of up to 20 males penetrated enemy territory, moving quietly in single file, scanning the terrain from ground to the treetops, and halting cautiously at every surrounding noise. If they encountered a force larger than their own, the invaders broke rank and ran back to their own territory. When they encountered a lone male, however, they pummeled and bit him to death. When a female was encountered, they usually let her go. (This latter tolerance was not a display of gallantry. If she carried an infant, they took it from her and killed and ate it.) Finally, after such constant pressure for so long, the invading gangs simply annexed the enemy territory, adding 22 percent to the land owned by their own community.

Our bloody nature, it can now be argued in the context of modern biology, is ingrained because group-versus-group was a principal driving force that made us what we are. In prehistory, group selection lifted the hominids to heights of solidarity, to genius, to enterprise. And to fear. Each tribe knew with justification that if it was not armed and ready, its very existence was imperiled. Throughout history, the escalation of a large part of technology has had combat as its central purpose. Today, public support is best fired up by appeal to the emotions of deadly combat, over which the amygdala is grandmaster. We find ourselves in the battle to stem an oil spill, the fight to tame inflation, the war against cancer. Wherever there is an enemy, animate or inanimate, there must be a victory.

Any excuse for a real war will do, so long as it is seen as necessary to protect the tribe. The remembrance of past horrors has no effect. It should not be thought that war, often accompanied by genocide, is a cultural artifact of a few societies. Nor has it been an aberration of history, a result of the growing pains of our species' maturation. Wars and genocide have been universal and eternal, respecting no particular time or culture. Overall, big wars have been replaced around the world by small wars of the kind and magnitude more typical of hunter-gatherer and primitively agricultural societies. Civilized societies have tried to eliminate torture, execution, and the murder of civilians, but those fighting little wars do not comply.

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