

# NewScientist

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## Born prejudiced

*We know ethnic prejudice is wrong, so how come it's still rife, asks Mark Buchanan*

Mark Buchanan

In 1992, during the war between Serbia and Croatia, The Washington Post ran an interview with a Croatian farmer named Adem, who had a horrific story to tell. Over the previous year, Adem said, discourse between local Serbs and Croats had deteriorated, as individual identities dissolved into a menacing fog of "us" versus "them". Then group animosity turned into something far worse. Serbs from a neighbouring village abruptly rounded up 35 men from Adem's village and slit their throats. The summer before, the killers had helped their victims harvest their crops.

Earlier this year a small group of Z-list celebrities caused an international incident during the filming of the UK version of the reality TV show, *Big Brother*. The seemingly racist comments made by Jade Goody and her cronies to Bollywood film star Shilpa Shetty provoked thousands of shocked viewers to write letters of complaint. There was a media frenzy. Questions were asked in Parliament. Even the Chancellor of the Exchequer, Gordon Brown, who happened to be on a visit to India, felt he had to comment on the affair.

Two very different stories; one common theme. Proof, if it were needed, that the human tendency to judge others in the crudest terms - race, religion, ethnicity, or any arbitrary marker - has not been consigned to the history books, no matter how much we might wish it were so. Somewhat disturbingly, scientists now suggest that this is not really surprising because such prejudice is part of human nature.

If they are correct, then the roots of group animosity and hatred run very deep indeed, which may be depressing news for those trying to make a difference in ethnic or sectarian hotspots from Darfur and Iraq to inner cities and football terraces. Yet researchers also insist that facing up to our authentic nature is the only way to gain real insight into the forces that drive group conflict, and to learn how we might manage and defuse such urges. "We shouldn't treat prejudice as pathological just because it offends us," says anthropologist Francisco Gil-White. "If we aim to transcend ethnic strife, we would be wise to understand the role that perfectly normal human psychology plays in producing it."

Psychologists have long known of our proclivity to form "in groups" based on crude markers, ranging from skin colour to clothing styles. Think of inner-city gangs, Italian football supporters, or any "cool" group of stylish teenagers. "Our minds seem to be organised in a way that makes breaking the human world into distinct groups almost automatic," says psychologist Lawrence Hirschfeld of the University of Michigan, Ann Arbor. Many experiments confirm this, and show that we tend to favour our own group, even when that group is just an arbitrary collection of individuals.

In 1970, for example, a team of researchers led by psychologist Henri Tajfel of the University of Bristol, UK, randomly divided teenage boys from the same school into two groups, and gave every boy the chance to allocate points to two other boys, one from each group. This could be done in different ways - some increasing the combined total for both recipients, and others increasing the difference between the two. The boys consistently chose options of the latter kind, favouring recipients from their own group.

Experiments like these are enough to convince Tajfel and others that if you put people into different groups, call them red and blue, north and south, or whatever, a bias towards one's own group will automatically emerge.

This in itself does not make us racist. In fact it may not be such a bad thing: research published last year suggests at least one useful function of our groupist tendencies. Political scientists Ross Hammond of the Brookings Institute in Washington DC and Robert Axelrod of the University of Michigan have discovered, perhaps surprisingly, that it can promote cooperation (*Journal of Conflict Resolution*, vol 50, p 926). Taking their cue from Tajfel's finding that in-group favouritism emerges with minimal prompting, Hammond and Axelrod decided to try to emulate this in a simple computer model. Imagine a population of individuals, interacting in pairs at random, and engaging in some activity where both would benefit from cooperation, but each was also tempted to cheat - getting more for themselves at the other's expense. With no insight into the likely behaviour of others, individuals in such a world would have no way - besides pure guesswork - to maximise the outcome of their interactions. But add one simple element, colour, and everything changes.

People in Hammond and Axelrod's world come in four colours, assigned randomly at birth. When interacting with others, they might now adopt one of several basic strategies. An individual might act randomly, as before, ignoring colour - which would make sense as the colours say nothing about how an individual is likely to behave. Alternatively, a person might always cooperate or always cheat, regardless of the other's colour. Another option would be to follow a groupist "ethnocentric" strategy - cooperating with anyone of the same colour, but always trying to cheat those of another colour. Finally, agents might be anti-groupist - only cooperating with someone of another colour. The researchers randomly assigned one of these strategies to each agent. They also gave all agents the ability to learn from one another, so that any strategy that did well would tend to be copied and so spread.

What happened then, they discovered, was that agents of each particular colour began to gather together. At first, a few groupist agents of the same colour might find themselves together by chance. Within such a group, cooperative interactions lead to good outcomes, causing others nearby to copy their strategy, swelling the group. In the model, Hammond and Axelrod found that strongly ethnocentric groups of different colours came to fill the world, at the expense of others. Anyone who did not follow the groupist strategy tended to suffer. Even someone ignoring colour - and remember colour initially signified nothing about an agent's behaviour - would also get wiped out. In short, once people begin to act on colour, it comes to matter. What's more, it turns out that the overall level of cooperation is higher in this world where there is in-group favouritism than in a world where agents are colourless. "Ethnocentrism is actually a mechanism for generating cooperation, and one that does not demand much in the way of cognitive ability," says Hammond.

Axelrod and Hammond are well aware that their model is a far cry from the complexities of real-world racism. Still, it is interesting that colour prejudice emerges even though colour has no intrinsic significance. Modern genetics has dispelled the naive notion that racial divisions reflect real biological differences. We know that the genetic variation between individuals within one racial or ethnic group is generally much larger than the average difference between such groups. As in the virtual world, race and ethnicity are arbitrary markers that have acquired meaning. But you won't get far telling Blacks and Hispanics in the racially charged areas of Los Angeles that their differences are just "superficial" cultural constructs. "Race doesn't matter because it is real," says historian Niall Ferguson of Harvard University, "but because people conceive it to be real."

What's more, this misconception seems to be deeply ingrained in our psyche. For example, Hirschfeld found that by the age of 3 most children already attribute significance to skin colour. In 1993, he showed

a group of children a drawing of a chubby black child dressed up as a policeman, followed by photos of several adults, each of whom had two of the three traits: being black, chubby and dressed as a policeman. Asked to decide which person was the boy as a grown-up, most children chose a black adult even though he was either not overweight or minus a police uniform. "Kids appear to believe," says Hirschfeld, "that race is more important than other physical differences in determining what sort of person one is."

More recent brain imaging studies suggest that even adults who claim not to be racist register skin colour automatically and unconsciously. In 2000, a team led by social psychologist Allan Hart of Amherst College in Massachusetts found that when white and black subjects viewed faces of the other race both showed increased activity in the amygdala - a brain region involved in grasping the emotional significance of stimuli. Yet consciously, these subjects reported feeling no emotional difference on seeing the different faces. In another study of white subjects, in the same year, neuroscientist Elizabeth Phelps of New York University and colleagues found that those individuals whose amygdala lit up most strongly also scored highest on a standard test for racial prejudice.

Does this mean that our species has evolved to see the world in terms of black and white? Not necessarily. After all, our ancestors would not normally have met people whose skin was a different colour from their own: neighbouring ethnic groups would have looked pretty much alike. So, it's possible that our tendency to classify people by colour might simply be a modern vice, learned early and reinforced throughout our lives - even, paradoxically, by anti-racist messages. That seems unlikely, however, when you consider our attitudes to ethnicity. In fieldwork among Torguud Mongols and Kazakhs, neighbouring ethnic groups living in central Asia, Gil-White investigated ideas of ethnic identity to find out whether people link it more with nurture (a child being brought up within a group) or nature (the ethnicity of biological parents). The majority of both groups saw ethnicity as a hidden but powerful biological factor, unaffected by someone being adopted into another group. "They perceive the underlying nature as some kind of substance that lies inside and causes the members of an ethnic group to behave the way they do," he says. Like race, ethnicity has no biological significance, yet this is exactly how we perceive it.

Many researchers now believe that we have evolved a tendency to divide the world along ethnic lines. For example, anthropologist Rob Boyd from the University of California, Los Angeles, argues that our ancestors, given the rich social context of human life, would have needed skills for perceiving the important groups to which individuals belonged. Being attuned to ethnic differences would have allowed individuals to identify others who shared the same social norms - people with whom it would have been easiest to interact because of shared expectations. It would have paid to attend to cultural differences such as styles of clothing, scarification or manner of greeting, that marked one group out from another. In the modern world, colour is simply mistaken as one such marker.

That might explain why we tend to divide the world into groups and why we use ethnic differences and skin colour as markers to help us do this. It even gives a rationale for in-group favouritism. But what about out-group animosity? Is prejudice part of the whole evolved package? Gil-White believes it is. He argues that within any group of people sharing social norms, anyone who violates those will attract moral opprobrium - it is considered "bad" to flout the rules and benefit at the expense of the group. This response is then easily transferred to people from other ethnic groups. "We're tempted to treat others, who are conforming to their local norms, as violating our own local norms, and we take offence accordingly," says Gil-White. As a result we may be unconsciously inclined to see people from other ethnic groups not simply as different, but as cheats, morally corrupt, bad people.

Natural but not nice

"I think all this work refutes those naive enough to believe that if it weren't for bad socialising, we would

all be nice tolerant people who accept cultural and ethnic differences easily," says Daniel Chirot, professor of international studies at the University of Washington, Seattle. That may sound disturbing, but being biologically primed for racism does not make it inevitable. For a start, what is natural and biological needn't be considered moral or legal. "The sexual attraction that a grown man feels for a 15-year-old female is perfectly natural," Gil-White points out. But most societies forbid such relations, and all but a very few men can control their urges.

Besides, if ethnocentrism is an evolved adaptation to facilitate smooth social interactions, it is a rather crude one. A far better way to decide who can be trusted and who cannot is to assess an individual's character and personality rather than to rely on meaningless markers. In today's world, that is what most of us do, most of the time. It is only when it becomes difficult to judge individuals that people may instinctively revert to the more primitive mechanism. Hammond and Axelrod argue that this is most likely to happen under harsh social or economic conditions, which may explain why ethnic divisions seem to be exaggerated when societies break down, as a consequence of war, for example. "To me this makes perfect sense," says Chirot. "Especially in times of crisis we tend to fall back on those with whom we are most familiar, who are most like us."

Knowing all this, it may be possible to find ways to curb our unacceptable tendencies. Indeed, experiments show how little it can take to begin breaking down prejudice. Psychologist Susan Fiske from Princeton University and colleagues got students to view photos of individuals from a range of social groups, while using functional MRI to monitor activity in their medial prefrontal cortex (mPFC), a brain region known to light up in response to socially significant stimuli. The researchers were shocked to discover that photos of people belonging to "extreme" out-groups, such as drug addicts, stimulated no activity in this region at all, suggesting that the viewers considered them to be less than human. "It is just what you see with homeless people or beggars in the street," says Fiske, "people treat them like piles of garbage." In new experiments, however, she was able to reverse this response. After replicating the earlier results, the researchers asked simple, personal questions about the people in the pictures, such as, "What kind of vegetable do you think this beggar would like?" Just one such question was enough to significantly raise activity in the mPFC. "The question has the effect of making the person back into a person," says Fiske, "and the prejudiced response is much weaker."

It would appear then that we have a strong tendency to see others as individuals, which can begin to erode our groupist instincts with very little prompting. Perhaps this is why, as Chirot points out, ethnocentrism does not always lead to violence. It might also explain why in every case of mass ethnic violence it has taken massive propaganda on the part of specific political figures or parties to stir passions to levels where violence breaks out.

If the seeds of racism are in our nature, so too are the seeds of tolerance and empathy. By better understanding what sorts of situations and environments are conducive to both, we may be able to promote our better nature.

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