

Genetic Similarity Theory and the Roots of Ethnic Conflict

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In response to the jointly established American and Canadian Psychological Associations' (APA/CPA) "Initiative on Ethnopolitical Warfare," the author discusses his Genetic Similarity Theory of ethnic nationalism. He shows that genes influence why people tend to marry and associate with others like themselves. The important pull of genetic similarity can be felt in small groups and even large ones (national and international). The reason people seek genetic similarity and fear and avoid dissimilarity is to be found in the sociobiology of altruism. Altruism to genetically-similar others (extended kin) is an evolutionary mechanism which evolved in order to help replicate similar genes. Xenophobia is to be perceived as the obverse concomitant of human altruism, and ethnic nationalism as a force inherent in human nature.

Key Words: Genetic Similarity Theory, altruism, ethnic nationalism, xenophobia, sociobiology.

The politics of ethnic identity are increasingly replacing the politics of class as the major threat to the stability of nations. In the decades since World War II many have hoped that economic and educational development would gradually reduce interest in local nationalisms and promote the growth of more universalistic societies. However, As Connor (1994) points out, there is now a growing lack of faith that education, modernization, and enhanced communication are sufficient to lead to the assimilation of communal groups into "new nations." There are few examples of significant assimilation taking place since the advent of the age of nationalism and the principle of self-determination of nations. This suggests that the world will face continuing upheavals as an unending chain of peoples rise to ethnic self-consciousness.

Although ethnic struggles are widespread in the world today,

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most explanations seem shallow. The rise of nationalism in the former Soviet Union and eastern Europe seems to defy explanation. Only weak accounts are given for the conflict between Tutsis and Hutus in Rwanda, Hindus and Muslims in India, Croats and Serbs in the former Yugoslavia, or Blacks and Whites in the U.S. Experts also fail to consider any downside to current U.S. immigration policies.

With ethnopolitical conflicts ravaging societies in many different regions, the American Psychological Association (APA) and the Canadian Psychological Association (CPA) recently established a joint "Initiative on Ethnopolitical Warfare" to investigate the psychological causes of this most vicious of the grim visages of war (APA/CPA, 1997). Psychological analyses of the causes of ethnic strife have generally been neglected relative to analyses of the better known and measured political, cultural, economic, historical, and religious factors. Psychological explanation is made especially difficult since the rival groups construct very different histories of the conflict, and all parties see themselves as victims whose story has not been told.

In *Race, Evolution, and Behavior*, this author explains Genetic Similarity Theory. Genetic likeness is the glue that holds most personal relationships together. Genetic similarity is the biological basis for ethnic nationalism.

People naturally choose those who are genetically similar to themselves – as spouses, friends, associates, and even political leaders. Similarity is nature's sign that a stranger is a friend, not a foe. It indicates compatibility in goals and temperament as well. It is natural that genetically — and racially — similar people feel strong ties to their group.

Genetic Similarity Theory explains why patriotism is almost always seen as a virtue and an extension of family loyalty. Group members have 'ties of blood' to each other that make them 'special' and different from outsiders. The need to identify and to be with one's own kind is a big part of human nature.

Ethnic consciousness is rooted in the biology of altruism and mutual reciprocity. It enables a person to replicate his genes more effectively because fellow ethnics carry copies of the same genes and therefore benefit from ethnic favoritism. Ethnic nationalism and xenophobia are thus in their way concomitants of altruism.

Ethnic identity and ethnic favoritism are strategies that have

Expanding one gene pool is sometimes done at the expense of other gene pools. History shows how peoples and cultures displace one another and fight for dominance. To understand why, we need to know about altruism in other species.

Evolution of Altruism

Altruism (behavior carried out to benefit another at a cost to the individual) has long posed a problem for theories of human nature. Animals show altruism through parental care, warning calls, common defense, rescue behavior, and food sharing. Altruism involves sacrifice. Sometimes the altruist dies. For example, when bees sting intruders while defending their hive, the entire stinger is torn from the bee's body. Stinging an intruder is an act of altruistic self-sacrifice.

Charles Darwin saw that altruism was a problem for his theory of evolution. How could altruism evolve through "survival of the fittest" if altruism means self-sacrifice? If the most altruistic members of a group sacrifice themselves for others, they will have fewer offspring to pass on the genes that made them altruistic. Altruism should not evolve, but selfishness should.

The problem of altruism was solved by *kin-selection* theory. It states that evolution is about *inclusive fitness*, not just individual fitness. It is the genes that survive and are passed on. Some of these same genes will be found in siblings, nephews, cousins, and grand-children as well as in offspring. Siblings share 50%, cousins about 12% of their genes. So when an altruist sacrifices its life for its kin, it ensures the survival of their common genes.

I have proposed Genetic Similarity Theory to go beyond "kin" and explain why people help spouses, friends, neighbors, and fellow ethnics. (See the 1989 issue of *Behavioral and Brain Sciences* for a summary and debate, as well as my 1995 book.) Genetic Similarity Theory explains assortative mating, or why "like mates with like," which kin-selection theory cannot. Assortative mating is not just found in humans. It occurs in insects, birds, monkeys and apes. It is even found in plants. Preferring similar partners requires being able to detect degrees of genetic similarity in others.

There is dramatic evidence that many animal species do detect genetic similarity. A guard bee blocks the nest to prevent intruders from entering. When bees of 14 degrees of genetic closeness to the guard are tested as intruders, only the more genetically similar

intruders get through.

In frogs, tadpoles are separated before hatching and reared in isolation. When the tadpoles' siblings are placed at one end of the tank and their non-siblings in the other, the tadpoles move to their sibling's end of the tank.

Squirrels produce litters that contain both siblings and half-siblings. Even though they have the same mother, share the same womb, and inhabit the same nest, full-siblings fight less often than do half-siblings. Full siblings also come to each other's aid more often.

Choosing Similarity

Choosing husbands and wives and best friends and social partners are some of the biggest decisions we make. They affect our social life and our reproductive success. There is a strong tendency to choose similarity. Friends of either sex, as well as mates, resemble each other in many ways. Similarity is greatest on demographic variables (about 0.80), next most on social attitudes (about 0.60), then on IQ scores (about 0.40), and least on physical and personality traits (about 0.20).

Evolution has also set an upper limit on "like marrying like" – incest avoidance. Too close genetic similarity between mates increases the number of harmful genes. The best mate is one who is genetically similar but not a close relative.

Blood tests show that human mates and friends are genetically close. In one study, couples who produce a child together were 52% similar, but random couples were only 43% similar. In another study, best friends were 54% similar to each other on these blood tests, while random pairs were only 48% similar.

Spouses

But how can we know for sure that social partners are drawn to each other because they are able to assess genetic similarity? The answer is clear, but technical. Both spouses and best friends pick each other based on the most heritable traits, not the most obvious ones.

While almost all traits are inherited, some are more heritable than others. Here are some heritabilities: for physical traits, 80% for finger length vs. 50% for bicep size; for intelligence, 80% for the general factor vs. less than 50% for specific abilities; for personality, 41% for liking to read vs. 20% for having many hobbies; and for

attitudes, 51% for agreement with the death penalty vs. 25% for agreement with Bible truth.

Partners are most alike on the most heritable items. Spouses resemble each other on average about 0.15 on physical traits. The range of values around 0.15 shows spouses are more similar on some traits than on others. The big point is that spousal similarity and heritability vary together. The more heritable a trait, the more spouses resemble each other on that trait. Spouses have chosen each other on the basis of genetic similarity.

These results cannot be explained by culture theories. Genetic Similarity Theory and Culture Theory of mate choice make opposite claims. Culture Theory claims that similarities between spouses will be greater on items that spouses are able to grow similar on because of shared experiences (e.g., calf and neck size, after shared diets and exercise). Genetic Similarity Theory, on the other hand, claims the similarities will be greater on items that are more heritable (e.g., wrist size and middle finger length, not easily changed).

Spouses resemble each other more on mental ability tests with high heritability than on tests with low heritability. Again, the results support Genetic Similarity Theory, not Culture Theory. Culture Theory wrongly predicts that similarity will be greater on tests easily modified through shared experience (e.g., reading together and building vocabulary).

The same results are found for personality traits. Similarity is directly related to heritability. Spouses choose their partners based on genetic similarity.

Family Members

Identical twins work harder for their twin than do fraternal twins. Identicals also show more physical attachment and express more affection. They also show greater loss when one twin dies. This makes sense because identicals are genetically more similar to each other than are fraternal. Happiness in a marriage is predicted by the genetic similarity of the partners. The items that best predict a good marriage have the highest heritability. Parents grieve more for children who resemble their side of the family.

Best Friends

Friends also choose each other based on genetic similarity.

Similarity between friends is greater on the more heritable items. This again supports Genetic Similarity Theory, not Culture Theory.

Ethnic Identity

The pull of genetic similarity does not stop at family and friends. Group members move into ethnic neighborhoods, and join in clubs and societies. Since people of the same ethnic group are genetically more similar to each other than to members of other groups, they favor members of their own group over outsiders.

Even very young children often show a clear preference for their own ethnic heritage. In fact, the process of making racial groupings results from a natural tendency to classify people into "kinds." Children quickly begin to sort people into "basic kinds" by sex, age, size, and occupation. Experiments show that at an early age children clearly expect race to run in families. Very early in life, a child knows which race it belongs to, and which ones it doesn't.

Culture actually builds on genetic similarity. Patriotism is preached by using kinship terms. Countries are called the "motherland" or the "fatherland." Unions and churches call their members "brothers" and "sisters."

Identity is a powerful force in human affairs. Ethnic favoritism and ethnic nationalism can lead to forms of self-sacrificing altruism. This explains why ethnic insults can so easily set off a riot.

Gene Wars and Culture Wars

Genes often have effects that extend beyond the body. In non-human animals, forms of culture like beaver dams and ant hills are handed down from parent to offspring. Analogously, genes incline people to learn those ideas that increase their genetic fitness. Nationalism, religion, and class interests are to some extent cultural 'houses' that shelter people and help to replicate their genes.

Often a dominant group attempts to weaken other groups by promoting ideas that work to the dominant group's advantage and to the other group's disadvantage. People can be coerced into working for other groups. Some cultures benefit one gene pool more than its rivals. This forms a basis for culture wars. "Culture wars" are really undeclared "gene wars."

Cultures do arise which are "lethal" to the gene pools adopting

them. For example, the Shakers were a religious sect that considered sex to be so sinful that it imposed celibacy upon even its married members. This idea was nonetheless successful in replicating itself through several generations. New adherents were recruited largely via adoptions. The member's genes, of course, failed to replicate.

Adopting some cultures can be considered a form of *unilateral genetic disarmament*. This would be the case if some groups chose multi-culturalism and genetic amalgamation while their competitors maintained a cultural purity. The gene pool for the first groups would cease to exist while those for the other groups would expand.

The gene pool affects how easily an ideology is adopted. The ideology then affects relative gene frequencies. Some genes thrive better in some cultures than they do in others. Religious, political, and class conflicts become heated because they affect genetic fitness. Karl Marx did not take his analysis far enough: Ideology may be the servant of economic interest, but genetic interest is master of both.

Campus and Religious Crusades

Over the last 50 years, American universities have been laboratories of changing norms, 'racial' and 'religious' quotas, and ethnic rivalry. This situation is even more tense in other countries. In Africa, the Kenyan government has warned lecturers and administrators at the University of Nairobi to stop giving higher marks to students of their own tribe. In Sri Lanka, members of the Tamil minority have to be given police protection.

This author first noticed the ethnic cultures at American universities when he spent six months at the University of California, Berkeley. The contrast with my mostly White Anglo-Saxon Protestant (WASP) home base at the university of Western Ontario was striking. Not only did ethnic groups sit together, but they often banded together for political action. Black newspapers on campus wrote about the plight of blacks in London, England, 7,000 miles away, and about the case of child murders in Atlanta. Jewish student newspapers, on the other hand, wrote about Israel, and dissident Jews in Russia, and appealed for money to help airlift the Ethiopian Jews to Israel. (Many now live in Israel and have become a 'tribe' of their own.) The Chicanos wrote about bilingualism and how to make it easier to immigrate to the U.S. from Mexico and Central America. Group membership clearly influences which issues we think are

important and what position we take.

Modern scientific testing shows that these examples of 'religious,' 'class,' and 'linguistic' groups are linked to genes. Genetic Similarity Theory predicts that many classic divides will turn out to be genetic.

Studies by Professor Bonne-Tamir of Tel Aviv University show that Jews are genetically alike even though they have been scattered around the world for two millennia. Jews from Iraq share more genes with Jews from Poland than either group shares with the non-Jewish groups they lived with for centuries. This is also true of Jewish immigrants to Israel from Germany and the former Soviet Union and even Libya. (The Ethiopian Jews, however, are not genetically 'Jewish').

Jews, Japanese, East Indians, Africans, and all other 'gene pools' tend to adopt ideologies that work in their genetic self-interest. These ethnic goals are rarely presented as pure genetic self-interest. Instead they are typically masked by high ethical terms, no matter how obvious to opponents. Just think of the competing claims of the Arabs and the Israelis, the Afrikaaners and the Bantus. Rival groups write their own very different history of the conflict and they see themselves as victims whose story needs to be told.

We must examine the genetic consequences of political action and find out who benefits and who loses. Political issues are explosive when survival and reproduction are at stake. Consider the growth of right-wing Christian fundamentalism. It represents a reaction to the moral breakdown of society. Because of trends in the mass media and educational system, many religious people believe they now live in a hostile culture. The issue on which they are most politically active is abortion. If estimates of genetic similarity could be obtained, I predict that fundamentalists are close to each other and to the basic Anglo-Saxon gene pool. I also predict that 'Liberals' who are pro-choice on abortion are genetically more distant from the WASP average. What percentage of the estimated 30 million women having legal abortions in the United States since 1973 were Anglo-Saxon?

Global Politics

In a 1986 article in *Politics and the Life Sciences* I predicted that the role of genetic similarity in geopolitics would increase in the U.S. and U.S.S.R. Both superpowers had large ethnic minorities with high

birth rates. The ruling groups could not maintain their positions. One reason the Soviet Union invaded Afghanistan was to suppress Moslem fundamentalism. The Muslim minorities in the U.S.S.R. had the highest birth rates and had displaced the dominant Russians in many areas. Today, the southern republics are free nations and the U.S.S.R. is no more.

Although I was not the only one making these predictions, most Soviet experts were stunned by how fast the U.S.S.R. and Eastern Europe broke up along ethnic lines. However, I take little comfort from the confirmation of these forecasts about the late U.S.S.R. In Europe and North America, power shifts and turmoil can be expected from the contrasting birth rates of Whites and non-Whites.

In 1950, the population of the United States was 88% White, 10% Black, and 2% Other. Today the population is 71% White and 29% non-White. By the year 2050, Whites will be only 49%, and simply the largest minority group. Canada, Australia, and Western Europe have policies similar to the U.S.A. In Canada, non-Whites will triple in number over the next 20 years to 7.1 million people, one in five Canadians. Japan, however, has a minority population of less than 1%, allows no immigration, and will remain ethnically unchanged for the time being. China, a new superpower, has policies similar to Japan's.

Back to the Future

Attempts to suppress ethnic feelings regularly fail because such feelings are part of human nature. Of course, genetic similarity is only one of many influences that operate in politics. Ethnic relations are complex and never caused by just one factor. Fellow ethnics do not always stick together, and conflict between groups is not inevitable. Genetic similarity influences social behavior in small groups and even in large ones, both national and international.

In his classic statement on the rights of people to govern themselves, John Stuart Mill (1951, p. 486) proposed that: "Where the sentiment of nationality exists in any force, there is a *prima facie* case for uniting all the members of the nationality under the same government, and a government to themselves apart One hardly knows what any division of the human race should be free to do if not to determine with which of the various collective bodies they choose to associate themselves." Sociobiology now tells us why J. S.

Mill was right – ethnic nepotism is an extension of an underlying genetic imperative.

Ethnic identity is based on genetic similarity. It may sometimes be hidden, but it cannot be eradicated. Better it should be understood. As economic opportunities grow and environments become more equal, people become freer to choose those cultures that are maximally compatible with their innate preferences. The world is currently witnessing a revival of ethnic nationalism despite the technologically-pressured trend toward globalization and universality. Genetic Similarity Theory explains why.

References

- APA/CPA (1997). *Ethnopolitical warfare: origins, intervention, and prevention. A joint presidential initiative of the presidents-elect of the American Psychological Association and the Canadian Psychological Association*. Washington, DC: American Psychological Association.
- Connor, W. (1994). *Ethnonationalism: The quest for understanding*. Princeton: Princeton University Press.
- Mill, J. S. (1951). Representative government. In J. S. Mill *Utilitarianism, Liberty, and Representative Government*. New York: Dutton.
- Rushton, J. P. (1986). Gene-culture co-evolution and genetic similarity theory: Implications for ideology, ethnic nepotism, and geopolitics. *Politics and the Life Sciences*, 4, 144-148.
- Rushton, J. P. (1989). Genetic similarity, human altruism, and group selection. *Behavioral and Brain Sciences*, 12, 503-559.
- Rushton, J. P. (1995). *Race, evolution, and behavior*. New Brunswick, NJ: Transaction.