

from our emotional self, and it is our emotional self that is normally triggered when we become aroused by anger, love or ideological values. Only when we succeed in detaching emotion from thought, have we created a situation without tension that allows us to reconsider and be flexible in our opinions.

Interestingly, our ability to detach thought and action from emotion has roots in our mammalian heritage. I became aware of this during my studies of the ontogeny of play behaviour. In 1949 I raised a baby badger. Once he was weaned, he lived freely under my barrack in the Viennese forest. In the evening he sought my company as a playmate. He would attack me and then retreat in mock fight. If an object caught his attention, he would catch and shake the object in mock hunting. He would freely shift to and fro from fight, to flight to hunting behaviors. Evidently he was not aroused by emotions of aggression or fear during these play sessions. It was then that I realized that higher mammals are able to decouple their emotions from behaviour patterns. They are thus able to experiment freely with their motor abilities as well as their environment, allowing them to explore, experiment and learn.

I later read in Wolfgang Köhler's account of his chimpanzee studies of how Sultan discovered how to put two sticks together to get a banana lying outside his cage. When first confronted with the task, he tried to use two short sticks, first one and then the other, in rapid succession, but of course in vain. Finally he threw a temper tantrum and turned his back on the scene. When his temper had cooled, he began to play with the sticks and then accidentally discovered how to put them together to form one long stick. Once he had done this, he remembered his old objective and got the banana that was now within reach of his longer stick.

Let us then stay cool when discussing subjects that are likely to arouse us emotionally, for we are going to discuss the hypothesis of racial differences in reproductive behaviour. I say cool, but not unengaged.

When gathering scientists from different branches of our discipline, we might ask the question, "What do we as scientists have in common?" For one thing, hopefully we have a concern for other people. We must remember though that our loyalties are graded. First come our family and kin, then closer related people of the same ethnic group and so on. Sociobiologists like Van der Berghe have discussed the phenomenon of ethnocentrism in the light of evolutionary theory and now we understand it at least in principle. Since it is genetic survival through survival of offspring which counts in evolution, ethnocentrism was a means of promoting the survival of our own genes. But from this it does not follow that we need to continue the ruthless ethnocentrism that has tainted most of human history up until now. We may not be able to love five billion people who are unknown to us, but we have every reason to foster a spirit of mutual tolerance and understanding since, as Hans Hass (1981) has expressed it: "Everything responsible for our human existence is due to a anonymous multitude of others who lived before us and whose achievements have been bestowed upon us as gifts."

We have created a concept of mankind in an attempt to foster a feeling of common heritage and thus to overcome the antagonism that leads to war. And since, amongst many other universally found behaviours, we share affiliative emotions, we are prepared to continue our struggle for survival in cooperative efforts. We have, however, to find ways to achieve this by respecting and appreciating cultural and racial diversity which requires social contracts as precautions against domination. To

do this we need as full as possible an understanding of human behaviour. So far, research in human ethology has concentrated on elucidating behaviors that are universally found in man. The result has been the discovery of an immense repertoire of shared behaviors. However, few human ethologists have looked for biologically based differences. If no such differences are found — fine — that makes it easier to grasp a feeling of common heritage. However, if differences do exist, only through an understanding of these can we attain mutual respect and peaceful co-existence. Differences, after all, have provided the pool of diversity essential to our evolution and, in humans, can either be used as the basis for antagonism or complementarity.

r/K Theory and Human Differences

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The issue that concerns me has little to do with the appropriateness of r/K theory to explain human differences, although I believe it is presumptuous to assume that the distribution of highly context dependent behavioral variables necessarily reflects the distribution of genotypes. But I do not want to argue that issue here. Rather, what concerns me most are the sociopolitical implications of the questions. Where is this leading us? And who is "us", white man?

If the question is simply the predictive potency of r/K theory, I believe that the welfare of the individuals who are being hurt by the supposed answers is more important than the question. Science is not done in a sociopolitical vacuum.

There is also an issue of "informed consent" in any human research where there is potential for harm to identified individuals. It is fairly clear what group is being harmed and, parenthetically, what group is benefitting by the press coverage of this issue. Scientists are not immune from sociopolitical responsibility.

The sociopolitical implications of an entire "race" of humans being of "low intelligence," "low altruism" and "low law abidingness" are so clear. I therefore believe that an organized scientific body needs to study the validity of the evidence and then issue a statement or a report. Unfortunately, academic debates in meetings and in newsletters don't get the same type of international press coverage as "racially inflammatory statements" by otherwise distinguished Professors.

The embers of another era are still smoldering. I suppose that some of us are more sensitive to this issue than others.

Human Ethology: r/K selection and the "New Racism"

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"Population differences exist in personality and sexual behaviour such that, in terms of restraint, Orientals > Whites > Blacks." Furthermore, "this ordering is predicted from an evolutionary theory of r/K reproductive strategies in which a tradeoff occurs between gamete production and parental care." These statements were made by J.P. Rushton in his article "Race differences in sexual behaviour: Testing an evolutionary

hypothesis" (Rushton, 1987, p. 529), and they illustrate the subject of a paper presented at the 10th International Congress of Human Ethology. The evolution-based explanation for these differences, according to Rushton, is the following one: Blacks are adapted to an unpredictable tropical environment; whites and orientals are adapted to a northern climate that is predictable over the long term (Rushton, 1988); the adaption is supposed to have caused a variety of genetic differences among the races.

In fact, this is a simple and appealing working hypothesis, but it is not a theory. It is a simple, testable, explanatory model, which, Rushton thinks, explains a wide variety of quite different variables: physical features, reproductive behaviour, sexual behaviour, criminal behaviour, and differences in intelligence and personality.

This hypothesis, or, more accurately, the data that have been cited to support it, has garnered considerable scientific and popular attention. Not because of the reported genetic differences among the races, however—there surely are such differences. The reason for the attention is that rank ordering the data the way Rushton does implies to the average person that differences in quality exist among the three populations. Rank ordering races places Rushton near Gobineau,¹ who suggested in his *Essai sur l'inégalité des races humaines* (originally published in 1853; first German translation 1898, next edition 1934, last edition 1940; Stuttgart: Fr.Frommanns) that there are genetically determined "traits of superiority" between races. Thus, the implied qualitative differences among the races take on a political dimension, because it is possible to use such differences as justification for nearly every type of racial discrimination. This political potential inherent in Rushton's ideas makes necessary the discussing of these ideas from two different perspectives: the scientific one and the political one. Rushton himself seems to be well aware of this problem when he writes: "However, fearfulness about injustice resulting from the overgeneralization of differences in group means to particular individuals should not keep us from vigorous research. The exploration of genetic variance within the human species, and the analysis of the causes of this variance, are of crucial importance to understanding man" (Rushton, 1988, p. 1021).

This letter is not guided by fearfulness. Its main concern is "vigorous research" and possible implications resulting from this research.

From a scientific perspective, Rushton's attempt to prove his hypothesis suffers from numerous methodological flaws. Although each point Rushton makes (see, for instance, Rushton, 1988) is elaborated in great detail, no actual data on variation are presented, except for penis length and penis diameter (indeed it is difficult to understand why penis length, brain size, and intelligence should be related to differences in reproductive strategies). In addition, all data that are presented come from other authors. Thus, Rushton's argumentation relies on hypotheses on means — and thus becomes a metahypothesis: it's a hypothesis about hypotheses on racial variations.

When we have a closer look at the evidence that is provided, we see that the argument becomes even weaker. As soon as the argumentation leaves the arena of physical anthropology and

moves on to psychology and sociology, possible intervening variables are almost completely neglected. Again Rushton tries to solve this problem by citing other authors, without presenting his own data: "Some of the observations can be explained in purely environmental terms. Chinese and Japanese, for example, typically come from traditional backgrounds where there are strong socializing pressures to conform, and restraint is generally valued. . . . Black males apparently learn early that assertive sexuality and sexual prowess are means of gaining status. . . ." (Rushton, 1987, p. 543) or "As we have implied, personality, sexuality, and culture are likely to interact in profound ways" (p. 546).

Instead of discussing these arguments thoroughly, Rushton, in his 1988 article, presents an impressive mass of counterevidence. This type of evidence then leads him to the conclusion: "That across populations brain size negatively correlates [our emphasis] with gamete production, and both covary with a suite of other attributes, provides compelling support for the r/K perspective" (Rushton, 1988, p. 545). Sorry, but we missed the correlation coefficient. This type of argumentation would imply empirical relations, which have not been shown. Doesn't Rushton know about the highly significant positive correlation between the disappearance of the white stork (which, in some fairy tales, is said to bring German babies) and the decrease of the birth rate in Germany? Correlations (although empirically demonstrated) do not necessarily reflect causal relationships.

Many of the racial differences that are evident through Rushton's literature review also could be explained in relation to differences in socioeconomic status (SES) or differences in culturally transmitted values of the populations. Remember that, with a few exceptions, most of the data come from one society (mainly the United States), where the populations that are being considered live under completely different socioeconomic conditions from one another. The almost complete neglect of possible intervening variables in Rushton's presentation of the literature is a serious mistake. In fact, we suggest the hypothesis that a similarity in socioeconomic conditions reduces (in most of the evidence presented) more statistical variance than a similarity in race does. Again, Rushton knows this: "We do know that considerable variability exists within each major group, as well as within numerous subdivisions" (p. 547). If variance exists, it should be presented.

Another astonishing point is that only large sample sizes are presented. Astonishment turns into surprise when we find only positive evidence — all evidence that is presented appears to be unquestioned "scientific fact." For the average reader, who may not be familiar with the primary sources, it is impossible to evaluate the vast amount of indirect evidence Rushton presents. An average reader (even with a scientific background) is not able to distinguish between facts and factoids.² This is the major problem. Rushton himself acknowledges: "While many studies finding an absence of differences have necessarily been omitted, I am unaware of any major study demonstrating results opposite to those reported here" (Rushton, 1988, p. 1017). So, another question arises: What are "major studies"?

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- 1 Gobineau in his theories mainly used arguments on a cultural and historical level, but he hypothesized that "blood" might play a role. In the beginning of the 20th century, his pupils introduced modern biological and genetic arguments into the theory.
 - 2 Norman Mailer created the term "factoids" for "facts" that exist only through their appearance in printed media. (N. Mailer [1973]: *Marilyn*, Grosset & Dunlap, New York.)

The causal interpretation of a nonexistent correlation coefficient is a venial mistake — together with the combining of data for “litter size” and for physical, psychological, and sociological traits taken from different sources, it is a serious error. This proof proves practically nothing. Scientific standards nowadays demand that the same individuals have to show all differences at the same time.

The only way to get around these methodological problems is by the rigorous presentation of data, where the source of the data, the sample sizes, and the variances all are presented in tabular form. Only in this way can the reader get an impression of the weight of the arguments.

There is only one way (and only one) to prove the hypothesis: by the presenting of empirical data. Such a presentation means a comparison of mongoloid, caucasoid, and negroid populations who live under different environmental conditions but who have the same socioeconomic background. This is a simple 3 races by 3 environmental conditions design, controlled for socioeconomic status. This proof, of course, is the responsibility of Rushton.

From the perspective of science, the r/K theory applied to human races would be much sounder if it were reformulated back to its point of origin: humans, although genetically different, all have the potential of reacting to different environments (climatic, SES, or whatever) with different reproductive strategies. By using the r/K theory taken from behavioural ecology to explain the data Rushton presents, we might be able to explain the evolutionary success of the species *Homo sapiens* without prematurely concluding the mechanisms.

Despite the above issues Rushton's critics would have been much more moderate if the statements had not carried such serious political implications. H.P. Eysenck, in his talk at the 10th International Congress of Human Ethology, drew parallels between Rushton, Einstein, and Galileo Galilei. Eysenck stated that everybody, including Galileo and Rushton, should have the right to express his or her scientific ideas. This notion is basically correct. On the other hand, Eysenck assumes that Einstein did not know how his findings would be used for the construction of the atomic bomb and believes that Einstein was, therefore, not responsible for the “misuse” of his ideas and that this premise also applies to Rushton. This notion is basically wrong. A scientist indeed is responsible for what he says or publishes, like anybody else in our society. The misuse of scientific ideas does not remain “potential.” More than 50 years ago, Gobineau's ideas led to a human disaster in Europe. Racial laws and discrimination were neither new nor unique to the Germany of this period; even in 1913, Géza von Hoffman reviewed in his book *Die Rassenhygiene in den Vereinigten Staaten von Amerika* (München: Lehmann) the racial laws of various states of the United States, laws that followed ideas comparable to Gobineau's.

In contrast to the discovery of nuclear fission, which was completely new, history has shown with painful consequences to humankind how ideas about rank orders of races can be used for the political justification of injustice. Those physical anthropologists in the Third Reich who used the ideas of the inequality of races, and thus laid the groundwork for racial discrimination and the holocaust in this period, rightfully have been held morally responsible for their influence. In addition, anybody who thinks that in a democratic society potential ideological explosives will be defused by democratic processes is wrong, because the comparison between three races could be only the beginning. Ethologists like Eibl-Eibesfeldt (1989)

have shown how demagogic processes use humankind's tendency for the justification of ostracism. Given this background, the Rushton statements have great demagogic potential. In addition, these statements and the methods employed to prove them can be used to vindicate nearly every ethnic conflict and (feminists, watch out) even gender differences (Orientals>Anglo-Saxon [males>females]>Italians>Arabs>Blacks). These problems are known to Rushton: “*Fortunately a more enlightened research climate for the study of racial variation may be occurring, at least as indicated by the increasing popular interest . . . and the willingness of front rank journals to consider their differences*” (Rushton, 1988a, p. 1038). Public interest and articles in front rank journals indeed may create the factoids mentioned above. Because Rushton moves on highly sensitive ground, we wish he would see his responsibility more clearly and adjust his scientific methods and argumentation. It is a pity that Rushton's work in the area of r/K selection has these shortcomings, for his work on genetic similarity theory is sound and promising (Rushton et al., 1984).

Last, but not least, from the political perspective there are severe implications for human ethology (at least in continental Europe). Human ethology should never play the role that physical anthropology played in the past, namely, delivering (even involuntarily) arguments for fascist ideology. Thus, it is the responsibility of every human ethologist to prevent the misuse of the ideas he or she produces.

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Comment on J.P. Rushton's Work on r/K Differences in Man

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Given the fundamental importance of the r/K distinction to Rushton's work, there is singularly little on how the environments of the various races might have differed and the functional effects of these differences, though alternative explanations are sometimes discussed (e.g. Rushton & Bogaert 1988). For example, if the theory is correct, physical and ecological differences within groups, for example between the Dinka and the Pygmies, might be expected to be accompanied by behavioural and psychological differences similar to those between groups.