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Review

The concept of alternative strategies and its relevance to psychiatry and clinical psychology

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Abstract

The intent of this article is to introduce the evolutionary concept of alternative strategies into the fields of psychiatry and clinical psychology. In behavioral ecology, the term alternative strategies refers to the presence of two or more discrete behavioral variants among adults of one sex and one population when those variants serve the same functional end. Often discrete behavioral variants are associated with specific morphological, physiological, and life-history characters. The concept of alternative strategies has been applied to human behavior to explain the origin of some behavioral syndromes that are currently classified as mental disorders or emotional dysfunctions. Antisocial personality could represent a high-risk strategy of social defection associated with resource acquisition and reproduction. Insecure attachment could represent an evolved psychological mechanism that used the quality of parental care received during childhood as a cue for optimizing adult reproductive strategies. Since a major contribution of evolutionary theory is the insight that individual differences are core biological features of any animal species, including *Homo sapiens*, the application of the concept of alternative strategies to psychiatry and clinical psychology can be a powerful antidote to the growing tendency to medicalize human diversity.

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That all men are equal is a proposition which, in ordinary times, no sane individual has ever given his assent

Aldous Huxley

1. Introduction

The history of medicine shows that decisions about whether a condition or behavior is best conceived of as a disease or as indicative of health are not made in a social vacuum. In the past, the importation of biases and prejudices into medical classifications of disease has had disastrous consequences for various social groups. For this reason, the study of individual differences requires vigilant and critical conceptual attention. The present and the future of medical research are not immune to the risk of erroneous medicalization. We are rapidly approaching a postgenomic era in which we will know the entire human genome sequence. However, as noted by Plomin [1]: 'There is no single human genome sequence—we each have a unique genome.' (p. 910). Human genome sequencing will reveal thousands of genetic variations among individuals and this will have a tremendous impact on those clinical sciences that are concerned with the study of individual differences. Given the high societal expectations of human molecular genetics, any trait, condition, or behavior associated with a genetic variation is in danger of being construed as a manifestation of disease: 'As more and more genetic variations among individuals are discovered, there will be a rush to label many of these variations as diseaseassociated.' [2, p. 807].

Evolutionary theory, with its appreciation for biological diversity, can contribute to strengthen the theoretical framework for the study of individual differences in clinical sciences. The intent of this article is to introduce the evolutionary concept of alternative strategies into the fields of psychiatry and clinical psychology. The central body of the article will discuss how alternative strategies are described and classified in behavioral ecology, will give some examples of alternative strategies in non-human primates, and will present data suggesting that two behavioral syndromes that are currently classified as mental disorders or emotional dysfunctions (i.e. antisocial personality and insecure attachment) could be alternative strategies. The paper begins with a brief discussion of how medicine and evolutionary biology differ in their conceptualizations of individual variability and concludes with

some reflections about the diagnostic and therapeutic implications of the re-classification of clinical syndromes as alternative strategies.

2. Individual differences in medicine and evolutionary biology

In ordinary medical usage 'normal' has two meanings: 'that which is common' and 'that which is compatible with health'. The fact that the two meanings are often confused reflects the tendency to equate statistical normality with biological normality. The origin of this way of thinking dates back to the Platonic and Aristotelian notion of the 'ideal' to which actual organisms are imperfect approximations [3]. According to typological thinking, homogeneity in a population is the natural state and variation is the result of some sort of interference. A type is postulated for all organisms of a given kind, and deviation from that type requires special explanation. Sir Henry Cohen's [4] definition of disease as 'a quantitative deviation from the normal' (in which by normal he meant the statistical norm) exemplifies the statistical approach to individual differences. Most biological traits are assumed to fall into a normal distribution, with most of the cases in the middle and a few at the extremes. These extremes, which constitute only a small percentage of the total population, are arbitrarily lopped off and labeled 'abnormal' or 'pathological' and the far larger percentage clustering around the middle is arbitrarily called 'normal'. For example, what most clinicians do when they receive a laboratory report is to look up the normal range for the tests in question, where the normal range is traditionally calculated in such a way that it includes 95% of the results found in a random and unbiased sample selected from the general population.

Of course, in medicine, statistical abnormality is not the only criterion of morbidity. Other independent criteria, such impaired function and presence of organic lesion, are commonly applied before deciding that a statistically deviant feature is a manifestation of disease. If an epidemiologist found that 60% of the persons in a society are afflicted with diabetes, no one would be likely to assert that these persons are healthy just because most of them have it. In addition, medicine acknowledges the existence of deviations from the norm which are neutral, like great height, or positively beneficial, like superior intelligence. However, the relevant point here is that medicine subscribes to the pre-Darwinian way of thought that attributes no adaptive significance to individual differences and that

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