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Kruglyak L, Daly MJ, Reeve-Daly MP, Lander ES (1996) Parametric and nonparametric linkage analysis: a unified multipoint approach. Am J Hum Genet 58:1347–1363

Lander E, Kruglyak L (1995) Genetic dissection of complex traits: guidelines for interpreting and reporting linkage results. Nat Genet 11:241–247

——— (1996) Letter to the editor. Nat Genet 12:357-358

Morton NE (1955) Sequential tests for the detection of linkage. Am J Hum Genet 7:277–318

Ott J (1991) Analysis of human genetic linkage, rev ed. Johns Hopkins University Press, Baltimore

Risch N (1990) Linkage strategies for genetically complex traits. II.

The power of affected relative pairs. Am J Hum Genet 46:229–241
Robbins H (1956) An empirical Bayes approach to statistics. In: Neyman L (ed) Proceedings of the Third Berkeley Symposium on Mathe

man J (ed) Proceedings of the Third Berkeley Symposium on Mathematical Statistics and Probability. University of California Press, Berkeley

Smith CAB (1959) Some comments on the statistical methods used in linkage investigations. Am J Hum Genet 11:289–304

——— (1963) Testing for heterogeneity of recombination fraction values in human genetics. Ann Hum Genet 27:175–182

Stuart A, Ord JK (1991) Kendall 's advanced theory of statistics. Vol 2, 5th ed. Oxford University Press, New York

Thomson G (1994) Identifying complex disease genes: progress and paradigms. Nat Genet 8:108–110

Whittemore AS (1996) Genome scanning for linkage: an overview. Am I Hum Genet 59:704–716

Whittemore AS, Halpern J (1994) A class of tests for linkage using affected pedigree members. Biometrics 50:118–127

Witte JS, Elston RC, Schork NJ (1996) Letter to the editor. Nat Genet 12:355–356

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Culture, Kinship and Genes: Towards Cross-Cultural Genetics. Edited by Angus Clarke and Evelyn Parsons. New York: St. Martin's Press, 1997. Pp. 272. \$69.95.

This book consists of a collection of papers, from a 1994 conference in Wales, written by social scientists and health professionals interested in the impact of genetics on different cultural groups. A slim volume, it reads easily and is convenient for dipping into at leisure. There are many useful references at the end of each chapter, enabling further reading if desired. The book introduces clinical, biological, anthropological, social, and political ideas on the issues surrounding culture and kinship, with respect to genetics and counseling; it is the first publication to unite such a diverse spectrum of perspectives.

The book challenges many common Western assumptions about culture and the ethics of medical care. Unfortunately, the messages relevant to the clinician are often accompanied by complex—and, at times, angry—academic discussions. Culture is discussed mostly with reference to different ethnic groups in the United Kingdom and Africa, although the debates relevant to the United Kingdom could easily apply to any Western society. There is a brief mention of cultural groups that have formed as a result of social circumstances (e.g., people with learning disabilities could be termed a "cultural grouping"), but there is no mention of other types of culture, such

as "deaf culture" or "gay culture," apart from one reference, in the editor's introduction, to deafness. One of the most poignant themes of the book is that, because rational thought is independent of race and class, clinicians who confront psychosocial difficulties in patients from different ethnic groups need to discount cultural stereotypes. Such clinicians need to acquire an understanding and respect for patients from different cultural backgrounds; the practical result of such an approach is that the patients' problems are not automatically assumed to be related to their culture.

The book opens with an insight into the different types of kinship patterns used by ethnic groups in the United Kingdom today (the European "egocentric" kinship and the Mediterranean, patrilineal, and Afro-Caribbean kinships), providing a sound basis for subsequent chapters. The discussion then turns to the various definitions of terms such as "culture," "ethnicity," "race," "society," and "relatedness." As author Helen Macbeth contends, "it is ironic that this discipline [anthropology] is centrally concerned with something that it fails to define adequately" (p. 54). Although these semantic issues are never settled, many other themes emerge as the debate continues throughout the rest of the book.

Many authors show that, although consanguinity is often blamed for disease, the networks that develop within consanguineous families can be useful for genetic counselors. There is practical information on how services for consanguineous families can be set up for the benefit of patients. Authors Sue Proctor and Iain Smith demonstrate that, despite the effect of consanguinity on increasing the risk of certain genetic conditions, it was not the main factor associated with adverse birth outcome for babies from 1,500 consanguineous Pakistani parents in Bradford, U.K. Other, more prominent factors included the mother being unable to speak English and subsequently not being directly involved in antenatal care, a problem that could be avoided if more health professionals spoke Asian languages and were better attuned to Asian culture. This example is representative of many other circumstances where the quality of care could be improved by improving cultural awareness within the medical community.

This book gives a fascinating account of how culture influences the perception of genetic disorders in the black population of southern Africa. Authors Jennifer Kromberg and Trefor Jenkins identify interesting cultural phenomena, such as belief in fate, which leads to the view that, if a child with a genetic condition is to be born, the situation cannot be altered, even by accepting prenatal diagnosis and selectively terminating the pregnancy. The authors also suggest that, when mothers want to learn *why* their child is disabled, they will consult the traditional healer rather than the Western clinician. Another point, related to language, is that there are no words for "gene" or "chromosome" in local Bantu languages. This issue also arises in genetic counseling for deafness, in which the same sign-language term for "genetics" is sometimes wrongly used also to describe "gene," "chromosome," and "DNA."

Practical issues for pedigree taking within Africa are highlighted, such as the problems encountered when the names of relationships in families are unexpected; for instance, the client's mother's older sister may be called the client's older mother, instead of aunt, or her younger sister may be called a younger mother. This particular situation also can be found 290 Book Reviews

in other ethnic groups who might be seen for genetic counseling within Western society, and it is a reminder that the validity of a pedigree is always questionable unless all relationships can be confirmed.

Author Charlie Davison raises issues that are later developed in a chapter in *The Troubled Helix*, edited by Theresa Marteau and Martin Richards (Cambridge: Cambridge University Press, 1996). The repeated points highlight Western cultural idiosyncrasies, such as the fact that families often interrelate several characteristics that run through the family (e.g., temperament and personality, as well as traits more generally accepted to be genetic). *The Troubled Helix* covers a much broader spectrum relating to social and psychological implications of genetics, among which the debate about culture is only briefly touched on.

There is criticism throughout the book that clinical geneticists are not open to altering their perspective of culture. Author Ursula Sharma wonders how anthropological insight into ethnicity could be relevant to geneticists, and she suggests that simply expecting definitions of ethnic groups to *explain* or *predict* behavior could lead to "victim blaming." Instead, ethnicity should be accepted and seen "as one of a variety of factors that together produce the plurality of identifiable patterns of dispositions, constraints, and choices seen in the complex urban culture of contemporary Britain" (p. 78).

In the final section of the book, author Chris Goodey makes the point that culture refers not only to people of different ethnic background but also to communities of like-minded, like-bodied people forced together by society. For example, people with learning disabilities associated with genetic conditions (e.g., Down syndrome) could be part of a cultural grouping; those members of the community of deaf people who identify with what they call the "deaf culture" may serve as another example of a cultural grouping.

In the last chapter, author Evelyn Parsons offers a neat summary of the book and asks "Does genetics impose itself on society, or does culture shape genetics in a process of interaction?" (p. 252). Parsons discusses this conundrum in detail, providing evidence to support both views but ultimately allowing readers to make up their own minds. However, since many policy makers probably see genetics as a science based on the opposition of "good genes" versus "bad genes," they may not consider that genetics could be molded to serve society and culture, instead of the reverse. Unless social scientists can exert more influence on the thinking behind Western medicine, genetics may continue, in Parsons's words, to "impose itself" on society.

The title, *Culture*, *Kinship and Genes: Towards Cross-Cultural Genetics*, does indeed fit the text of this book. Much of the work has been published as individual papers elsewhere, but no other text brings together such a wide collection of perspectives on the central issues of culture with respect to genetics. The book can be read on different levels; it can be used for simple information and advice for improvement of services for different ethnic groups, and it recounts a complex academic debate about the interaction between culture and genetics. There is a much-needed insight into the positive side of cultural traits such as consanguinity, and there is a reminder of the value of treating patients as unique individuals rather than as stereotyped products of particular cultures. I would

recommend this book not just to academic anthropologists but also to genetic-counseling students with an interest in different cultural populations and to practicing clinicians or counselors who work with ethnic minority groups.

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The Centromere. By K. H. Andy Choo. Oxford: Oxford University Press, 1998. Pp. 320. \$85.00 (cloth); \$41.95 (paper).

The centromere, the specialized chromosomal domain that directs the movements of the chromosomes in mitosis, is different things to different people: the primary constriction of the mitotic chromosome, the origin from which recombination distances are measured, a DNA sequence, a specialized type of heterochromatin, a regulator of sister-chromatid pairing, a structure that attaches the chromosome to the ends of growing or shrinking microtubules, or a signaling device that monitors chromosomal alignment and tells the cell when it is safe to segregate either sister chromatids in mitosis or homologues in meiosis. In this book, K. H. Andy Choo covers most of these aspects of centromere structure and function, in an up-to-date and comprehensive fashion. This is a significant book that will stand as a very useful introduction to this interesting chromosomal substructure.

The book is organized into eight chapters. After a general introduction of terms and processes, Dr. Choo presents two chapters on the centromeres of budding and fission yeast. These are excellent and provide a fine introduction to the literature. I have only two quibbles to raise with these chapters. First, they tend to overstate the degree of homology between human and yeast centromere proteins. Second, in the chapter dealing with *Schizosaccharomyces pombe*, Dr. Choo has completely omitted any reference to the Yanagida lab's nomenclature for the organization of the *S. pombe* centromere DNA sequences. The latter should definitely be given the highest priority for correction in subsequent editions—it will leave readers confused when they attempt to read the many important papers from the Yanagida lab and is very unfair to one of the most influential and productive pioneers in centromere

Chapter 4 describes the organization of the higher-eukaryotic centromere, together with a number of other interesting points, including order within the nucleus, position effect, and holocentric chromosomes. This is a useful introduction, well written and well referenced, with the exception of the some-