Foreword

This book presents a fascinating and compelling example of application of network analysis to kinship. Although this is one of the most complicated topics in anthropology, the objective of the authors is to find simple principles governing protean social processes that generate the complexity that is observed ethnographically. The research is done on the border of the two academic fields: network analysis and ethnography. In doing so, the authors have engaged in an intense and novel collaboration. Having developed a new set of methods for this kind of study, one of their goals is to provide the means for others to use this hybrid approach to ethnography and history. The fruitfulness of their results augurs that further applications of this approach will be not only worthwhile but transformative to anthropology itself.

The authors present a detailed and thoughtful introduction into network analysis, which is one of the most promising of academic fields today, and has been found to have broad applications across disciplines. A person with no previous knowledge of this approach has the chance to learn about powerful tools and opportunities of network analysis and about self-organizing properties of various types of networks. This book makes it possible for one to learn how to analyze networks in terms of their navigability, searchability, and inner cohesion. White and Johansen spell out difference between micro and macro levels of the networks and describe the modes of interaction between them, constituting a form of theoretical explanation that applies to networks both in general and in the specific case of kinship studies. At the same time, the theoretical principles discussed in the introduction are amply illustrated with the ethnographic case of a clan of Turkish nomads. The chapter on problems of analysis, focused on both Middle Eastern ethnography and kinship in general, and the chapter on ethnographic background show how the ethnographic context itself poses some basic problems whose solution requires a theoretical and analytic foundation of network conceptualizations of social process, organization, and structure.

The kinship structure of the Turkish nomad group studied by Johansen is subjected to a number of rigorous empirical tests as to whether it represents a small world, which is a network with intensive local clustering and short distance between its elements (in this case members of the larger clan that forms the local society). The concept of navigability along strong ties of trust and reciprocity in a small world

provides a valuable framework for analysis of the functioning of such social systems. The navigable strong-tie system that is discovered in the nomad group is organized primarily by hereditary links among men but marriage ties turn out to be the major means of connecting various segments within the clan and between clans. Thus, the women are found to be active agents of network development.

Societies with circumnavigable strong-tie networks are very different from European societies in which it is only the combination of weak and strong ties that allows people to navigate and search, through personal networks, the "small world" of society at large. In European societies, strong-tie networks at the societal level do not constitute a single small world but break up into discrete clusters, proverbialized by an Iranian mullah as "spider-web networks" that are ephemeral when compared to those that are navigable based on trusted ties.

White, working with Johansen's data, employs sophisticated statistical methods to show that degree of consanguinity is an excellent predictor of marriage probabilities, starting from the first cousin level and working outwards. The probability distribution exhibits distance decay in the frequency of marriage; hence, a power-law is said to govern marriage preferences because distance decay reflects the distribution of orientations to partner selection. Distance decay of marriage frequency with consanguinity is linked to a measurable concept of social cohesion of which consanguinity is only a part. It also reflects, on the one hand, the high value of marriage alliances between the segments of the clan. On the other hand, many marriages are exogamous and imply more distant ties with other clans. The statistical tail of the power-law preference gradient for marriages is not truncated like that of the bell curve but extended, counterintiutively, so that less frequent and distant ties are just as important as close ties because of their effect in creating the basis for long-distance cohesion even if the density of long-distance ties is low. The idea here, from scaling laws found in studies of self-organization in other domains, is that if at any level the size of the social unit and network were multiplied (by two, ten, or a hundred, for example), the tails of the marriage preference distribution would extend to a multiple of the distance. This type of network, then, has a potential for self-scaling as a navigable small world at any level of territorial population size.

Self-scaling in this context also conveys the idea that taking a clan as a unit of study for a small locality-based society is consistent with a kind of Chinese-doll model of local groups that are embedded in successively larger groups such that some of the properties of the larger and smaller social networks of these units replicate one another. This is a revolutionary idea for social anthropology when carried out on the basis of a com-

bination of empirical research and mathematical modeling of how such properties replicate at different levels of organization. The approach to marriage preferences through probability distributions, distribution theory, and scaling laws is also revolutionary for anthropological treatments of marriages, which have relied on oversimplified ideas about rules, strategies, and preferred types of marriage.

Other principles of simplicity discovered in this study of ethnographic complexity are the defining features and dynamics of an endo-conical clan structure and a preference gradient in which people with fewer siblings are more likely to emigrate while emigration for those with more siblings is less likely. The larger sets of siblings in the nomad group tend to constitute the loosely ranked endo-conical clan, with its preference gradient for endogamy and its flexibility as to whether first-born or second-born sons, for example, elect not to emigrate but at an appropriate time take the role of local sublineage leadership.

Further, the study shows that bi-parental rather than just patrilineal descent membership of an individual within the clan is a good predictor of one's social position. The demographic consequence that is significant is that bi-partial members of the clan—those with clan ancestors and endogamous marriages on both sides of their family tree and thus with more cohesion within the clan—are much less likely than others to exit from nomadism and settle in a town or village.

The book is rife with hypotheses about the effects of cohesion, defined as a network or structural variable, and most of these hypotheses are supported when tested empirically. Thus, other principles that identify simplicity in complex interactions derive from structural cohesion as an important predictor of social behaviors such as marriage, migration, leadership, and group or alliance formation.

This study is important not only because the kin organization of this Turkish community is typical for the Middle East and might have developed under the Arabic influence. It also shows universality of the principles of organization that apply to a class of consanguinity-oriented societies as contrasted, for example, to societies that lack the importance of kinship structures altogether. What this book represents is the first working out of a new theory of complexity—which is really an enormous simplification of principles—that defines a few simple types of kinship systems, including a type of consanguineal complexity found in the Middle East and a type of affinal complexity exemplified in Europe.

The reader finds new perspectives on ethnographic explanation and complexity theory, which finds in complicated things some rather simple principles but whose discovery and verification require strong analytic tools. Ethnographers, in fact, are often so puzzled with overwhelming

complexity of even "simplest" human societies that some thinkers suggest to deny any search of regularities. Each community presents a multi-level network with various social, economic, political and cultural dimensions. The thoughtful use of network analysis can provide ethnographers with powerful tools for making sense out of these complexities and finding regularities of social life, simple in principle but without too great simplification of cultural phenomena because, in part, the principles involved are also ones that explain how diversity is generated.

This book is important not only for Anthropology but also for Turkology and Middle Eastern studies. The applied value of the study cannot be overestimated because kin structures still play important social and sometimes political role in many societies. In some modern Middle Eastern countries, including former Soviet Central Asia, dictatorships or even democracies disguise domination of some clan groups over others. As White and Johansen point out, kin ties are one of the major institutions in clan oriented groups and they influence significantly the functioning of a whole range of important social institutions from trade networks to large territorial communities.

This brilliant and pioneer study establishes methodology that will be demanded in Anthropology, History, Political and Legal Sciences, and Economics. There is reason to believe that it marks the beginning of a whole new stage in the study of dynamic social processes both at present and in the past and not only in the Middle East. It shows, for example, how little of the important information from such sources as genealogies has been extracted to date. We have an enormous amount of data on genealogies for all the parts of the world: Eurasia, Tropical Africa, Oceania, and the Americas. For most parts of Eurasia, genealogical data cover many centuries and, occasionally, even millennia. As this book suggests, we can reconstruct a much wider range of structural characteristics of respective social systems than has been imagined, including analysis of dynamic processes that can be reconstructed with the use of appropriate methods. This book, then, opens a very novel and promising perspective within social sciences in general, and Social Anthropology / Social History in particular.

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