7-1971

Towards a Generative Model of Nomadism

Brian Spooner

University of Pennsylvania, spooner@sas.upenn.edu

Follow this and additional works at: http://repository.upenn.edu/anthro_papers

Part of the [Anthropology Commons](#)

Recommended Citation

Spooner, B. (1971). Towards a Generative Model of Nomadism. *Anthropological Quarterly*, 44 (3), 198-210. <https://doi.org/10.2307/3316939>

This paper is posted at ScholarlyCommons. http://repository.upenn.edu/anthro_papers/67

For more information, please contact libraryrepository@pobox.upenn.edu.

Towards a Generative Model of Nomadism

Abstract

The anthropological study of nomadism should be approached via cultural ecology and by the generative method. A preliminary generative model is presented, consisting of a series of seven rules. The first five are derived from the literature and are concerned with group formation. The last two are proposed by the writer with a view to making the articulation between group formation, social ecology and social organisation.

Disciplines

Anthropology | Social and Behavioral Sciences

TOWARDS A GENERATIVE MODEL OF NOMADISM

BRIAN SPOONER

University of Pennsylvania

The anthropological study of nomadism should be approached via cultural ecology and by the generative method. A preliminary generative model is presented, consisting of a series of seven rules. The first five are derived from the literature and are concerned with group formation. The last two are proposed by the writer with a view to making the articulation between group formation, social ecology and social organisation.

The purpose of this paper is to take a further step towards valid generalization about nomadism in the context of cultural anthropology: specifically, to propose and explore in a preliminary manner the application of the following two rules:

1. *that the geographical location of nomadic groups is due to exogenous factors.* That is, nomads do not choose their habitats.

2. *cultures (and societies) seek to eliminate chaos.*¹ Societies and cultures are ethnoscientifically derived concepts and systems, which are by definition ordered, and which pattern empirical events and relationships. The degree to which they approximate empirical social reality varies. Where the minimal social groupings of a society are relatively unstable, the cultural ideology will be relatively stable, and vice versa. Instead of the classical distinction between culture and nature, this offers a cultural insistence—represented in the native model of the society—on order in contrast to statistical reality, which appears chaotic, and unstable.

Such a discussion requires before anything else a definition of the subject. For this purpose, therefore, I define nomads somewhat arbitrarily, but not, I hope, without some logical justification, as social groups with no permanent habitation, because interest in fixed residence—an essentially non-nomadic trait—

¹ Not, of course, chaos in nature, but chaos as it appears in nature, i.e., unpredictability, cf. Lévi-Strauss (1969:32): "The prime role of culture is to insure the group's existence as a group, and consequently, in this domain as in all others, to replace change by organization" and Lewontin (1968: 203ff).

unavoidably constitutes a significant factor both of social organization and of the relationship of the group with its total environment, and thus gives rise to situations such as obtain among the Jie and the Karimojong, where the division of labor is reflected in the spatial distribution of the population and the seasonal movements: i.e. more women stay behind and cultivate; more men move back and forth with the herds (Gulliver 1955: 16ff.). I take no account, therefore in this paper of, for instance, the Jie, the Karimojong, the Nuer, as they are described by Gulliver, Dyson-Hudson, and Evans-Pritchard. This radically reduces the number of societies south of the Sahara, and of the Islamic area, which may be considered. However, the value of the generative approach lies in the fact that the model may be applied to the study of any society insofar as it is nomadic—though it must, of course be worked out with reference to groups which are totally nomadic.

Secondly, and with a view to etymology, I define nomads as pastoral nomads, though I predict that the rules I wish to write may without too much modification be rewritten to comprehend other societies without fixed residence, e.g. hunter/gatherers. "Pastoral" and "pastoralism" pertain exclusively to direct or indirect subsistence from the products of domesticated animals (primary products would be meat, blood, milk, hair, wool, hides, and secondary products—butter, cheese, ghee, cloth, rugs; by indirect subsistence I mean subsistence *via* a market economy).

The underlying thesis of the paper is that nomads do not constitute a useful category for anthropological attention unless approached from an ecological point of view. A group of people may be induced by considerations of total social and political environment to make the nomadic adaptation to a particular habitat. This adaptation to physical environment generates many of the other aspects of their culture and organization. It is a simple and not entirely new thesis, but has not to my knowledge been attempted before in more than a preliminary manner.² I start from the position that nomadism is a component of the culture of certain groups of people but not necessarily of whole societies or even whole communities, and my aim is to make valid

² cf. Rubel (1969). Leach (1961) and Barth (1966) have been the main general advocates of the approach.

generalizing statements in the form of generative rules which may be applied to any group of pastoral nomads. My own ethnographic experience has been among the Baluch in southeast Persia and other minor groups in eastern Persia, southwest Afghanistan and western West Pakistan.³ First, by way of introduction I must summarize briefly what I take as given, most of which has appeared or will appear elsewhere (cf. bibliography). Since my own work has been on the Iranian plateau I am particularly conscious of the significance of a Great Tradition—in this case, of Islam—and the historical and historiographical perspective which the existence of such a tradition allows in anthropological research. The force of Islam as a cultural tradition and an ideology has been such that it has constituted the idiom for all cultural expression throughout a very large proportion of presently existing nomadic groups, and therefore constitutes a constant which is not ecological. Since Islam as a cultural framework and the life and institutions of the city in the Islamic area are inseparably linked, there has historically been a tendency for the prosperous nomadic groups to ape the institutions of the city within that area, and it is of course well known (cf. e.g., Ibn Khaldun 1958; Spooner 1969; Barth 1961) that historically there has been much demographic and political interaction and interexchange between nomadic confederacies, villages and cities in the Islamic area.

Although the light of history illuminates much of the social processes of the last 1300 years in these circumstances, it also throws distorting shadows, since the history was in no case written by nomads. This type of historical information did not start with Islam. For the central part of the Islamic area, from Iran to Egypt, the historical period began some three millenia earlier and we also know more about the prehistoric period for this area than any other part of the world. This includes the

³ This paper also owes much to my close association with other ethnographers who have worked with nomads elsewhere in and around the Iranian plateau, especially William Irons, P. C. Salzman, Nina and Warren Swidler, and Nancy and Richard Tapper. For other nomadic groups I have used mainly the *oeuvres* of Asad, Barth, Cunnison, Dyson-Hudson, Ekvall, Kopytoff, Lewis, Paine, Peters, and Stenning. Secondarily, there is also of course the variety of travelogs, theses and papers, published and unpublished, containing less detailed or less anthropological information on other groups from Siberia to south Africa.

actual domestication of the animals which form the economic and ecological base of pastoral nomadism. I do not wish to appear to exaggerate either the quantity or the quality of data from these earlier periods, but merely at this stage to make the point that they should be included in any generalizing discussion.

Pastoralism generally is considered to be secondary to agriculture on the evolutionary scale. It has been suggested that the domestication of milch animals occurred at a particular stage of the evolution of agriculture, when the pressure of population on resources caused the reduction of the fallow period to only a few years—a situation that favored the spread of grasses (cf. Boserup 1965; Smith and Young 1971), and there are also other reasons for suggesting that pastoralism and therefore nomadism appeared much later than agriculture, and secondary to it. We know that there was pastoral nomadism in the hinterlands of both the Mesopotamian river system and the Nile which impinged on the settled agricultural civilizations, and that groups of these nomads were from time to time absorbed into the settled society. It is well to remember that historical and ethnographic evidence together suggest that there has never been a totally pastoral society, but that non-pastoral products have always been an important part of the diet of pastoralists, and activities associated with acquiring them have figured largely in their annual cycle and division of labor.

The present distribution of nomads is straightforward: from the Bering Strait to the Mauretanian coast and from the Siberian tundra to east Africa (with pockets further south and south west). Throughout this vast arid zone, wherever water and soil conditions do not allow the permanent settlement of agricultural communities with traditional technologies, probably all available natural pasture is liable to exploitation at one season or another by one or another group of pastoral nomads. The details of ecological adaptation vary of course enormously throughout the area according to whether climatic conditions favor the use of cattle, sheep, goats, camels, or reindeer, whether subsistence preferences, market facilities, the level of affluence or other cultural values favor the production of milk, cheese, ghee or whole animals for meat or transport. A particularly important distinction is between groups which place greatest emphasis on the production of

a regular daily supply of food, and those for whom the production of marketable surpluses is more important (Dyson-Hudson 1969:76). One of the main problems in symposia on nomads has been that of bridging the gap among African, Islamic and reindeer nomads (and among anthropologists specialized in the study of each), and the Dyson-Hudsons' distinction may prove to be a useful criterion in this context. Most African nomads are primarily interested in the regular production of a daily supply of food, from both pastoral and other sources; most Middle Eastern nomads lay greater emphasis on the production of a marketable surplus of pastoral products, which they then trade for the greater part of their non-pastoral needs. Many of the most obvious typological distinctions between African and Islamic nomads, *viz.* huts *vs.* tents, cattle *vs.* sheep, and other aspects of material culture and values, may be hoped to fall into context when studied from a generative, ecological perspective. However, such is the ideological gap between Africanists and other area specialists within anthropology that really significant advances in the general treatment of nomadism may not be possible until, for example, the Africanist works with the Bedouin, and the Islamicist with the Lapps.

The stage was set for the ecological study of nomadism in 1955 when Gulliver wrote: "To a certain extent any study of the Turkana is also an ecological study" (Gulliver 1955:16). Sixteen years later we can write the following rules (though they will undoubtedly require modification):

1. According to the behavioral characteristics of particular types of domestic animals, and local climatic and environmental conditions, *for any given herding situation there is an optimum size of herd or flock*, which if maintained will maximize both production and efficiency of herding (Swidler 1969; Hafez 1969). All pastoralists are conscious of the range of this optimum size and seek to keep the herd in which they have an interest within these limits.

2. According to the same combination of factors, plus consideration of any non-pastoral resources which may be exploited, there will be a definite number of tasks to be coped with by the members of the herding group. These will be distributed accord-

ing to individual access rights and cultural conceptions of the division of labor, and *will thus determine the optimum numerical composition of the herding group*, and also an optimum distribution of age and sex differences within the group. All pastoralists are conscious of the optimum composition of their particular herding group, and seek to attain it and keep to it.

3. Since animals are owned individually, or are controlled by individual family heads; and individual holdings fluctuate independently; and the age and sex distribution of the herding group is continually changing because of the developmental cycle and the formation of marriage alliances; therefore, it follows from 1 and 2 above that there will be continual pressure to make changes in the composition of the herding group in order to maintain the total herd size and the composition of the group within the limits of the optimum. The result is a continual reshuffling process (Swidler 1969). Therefore, *individual herding groups*—the minimal social and subsistence groupings of a nomadic society—are *essentially unstable*. This is the basic ecological factor in the social organization of nomadic groups. The average rate of reshuffling, or the degree of instability, depends on the number of individuals or families which must cooperate in any given situation.

4. Thus far, we have been concerned with the minimal herding unit. *The native model of the society* (e.g. genealogy among the Bedouin in Peters 1960) *does not define the minimal herding unit*, except where it is assigns to it a term (e.g., the Kazak *aul*, Hudson 1964:24) which does not articulate predictably with the larger system.

5. All major movements of herding groups are related to seasonal variation in climate and environment. Such seasonal variations invariably require larger concentrations of people and animals at one pole of the annual cycle than others. This requirement is met by the amalgamation of minimal herding groups. These amalgamations—and not the minimal groups—constitute the lowest level of social organization in the native model of the society. *The native model is concerned ideologically with the relationships between groupings at this level and above*. Any explicit or institutionalized political organization or roles also start at this level, and are not found below it.

So far none of these rules is new, though they have not before been put together in this form or sequence. They are derived from particular ethnographic contexts, much of which has not been published in detail. Most of the published monographs on pastoral nomads do not present data which would allow direct collation with this model. However, neither do they answer the question of the articulation of the formation of minimal subsistence groupings with the larger native model of the society. The model proposed here attempts an answer to this problem. A detailed investigation of its viability in the context of the total literature on nomadic societies requires more space than is available here, and will be attempted in a future publication.

I now discuss briefly the two additional rules I propose:

6. *The geographical location of nomadic groups is due primarily to exogenous factors.* Under this rule I wish to emphasize the role of factors of social ecology not only in the nomadic adaptation itself, but in the process which leads to the nomadic adaptation to marginal environments. It is too often forgotten that nomads—as well as groups subsisting in other ways from marginal environments—could with few exceptions apply either the same or more advanced technologies to the exploitation of more lush neighboring environments. As part of their adaptation they have developed a group ideology which claims, often aggressively, that their particular arid environment, and the technology they use to exploit it, produce the best life. The ideology is part of the native model of the society only.

The only attention I have noticed given in the literature to exogenous reasons for the siting of nomadic activities is in Stenning (1957), where he even reserves the terms migration and migratory drift for displacements of nomadic groups for reasons which derive largely from their relationships with their neighbors. The western Sudan and the Fulani provide an ideal situation for the investigation of these processes. Hundreds of miles of displacement east or west require comparatively little change in the north-south pattern of seasonal movements, and are presumably more easily accomplished. And the Fulani may be displaced, both individually and in groups, over vast distances and still remain Fulani. Barth's (1956) study of Swat should also

be mentioned in this context, because of his treatment of the nomads in the valley.

The habitat of nomads—which may be an extensive area, or just a niche in an area which is also occupied by non-nomads—is always marginal, at least in relation to the habitat of their non-nomadic neighbors. This marginality is characterized not only by the relative poverty, but also the unpredictability of the resources, e.g. rainfall is not only low or unfavorably distributed through the seasons, but varies greatly from year to year. For this reason, efficient use of the resources, and reasonable distribution of access to them throughout the population demands a relatively high degree of flexibility in social organization. At the same time it means that security of access to a particular set of resources is less important than the maintenance of a network of relationships which would secure options to switch from one set of resources to another as conditions required. Such flexibility cannot be maintained except at the expense of a high degree of competition, which leads to a strong demarcation between cooperating (generally affinal, i.e., matrilineal) relationships between one group and a number of others, and hostile (generally “feuding” or distant agnatic) relationships between one group and the rest with which it comes into contact. For obvious reasons there is a tendency for the friendly relations which a group enjoys to be with relatively distant groups, who are more likely to be of help in bad years, rather than with close neighbors with whom there is more immediate competition and rivalry (cf. Peters 1967).

Nomads who live in relatively close contact with non-nomads compete also with *them*, and this competition takes ideological, political and cultural forms. In these conditions, while the ideologies and political systems, and the nomadic groupings and agricultural settlements, maintain their identities, individuals move back and forth between the two, and there is considerable cultural interchange. The cultural identity of a group is maintained in its ideology, but individuals may change group affiliation, and subsistence technology, and identity and ideology (cf. Barth 1961 and Spooner 1969). It would be interesting to know whether Karimojong, as individuals or as groups, ever turn into Jie or Pokot, and by what processes. Against the background of the literature on nomads elsewhere it would be surprising (and, in

itself, require investigation) if these identities were as absolute as the people no doubt represent them. It should perhaps be mentioned that Barth (1964) has constructed an interesting model of change of identity without movement of population, which derives from his work in northern West Pakistan, and appears to have parallels elsewhere in the Iranian area.

Nomadic *societies* are defined ethnoscientifically. In view of this approach the relevant social universe for the study of a nomadic society is not likely to be coterminous with that society—though ethnographers still tend to define their universe of study in terms of native identities. The question of how to determine a valid social universe for the study of any particular problem has received very little attention in anthropology. In the case of nomads it is crucial because of the essentially mobility—and relative instability—of nomadic groups and individuals, and the universal institutionalized provisions for the assimilation of aliens, and must therefore be drawn wider than it traditionally has been. For nomads are either a part-society incapable of being culturally independent, or where this is not the case and they are economically and ecologically self-sufficient through use of other non-pastoral resources (as with many of the cattle and reindeer herders), then at the very least their relations with their neighbors are a major factor in keeping them where they are—in the habitat to which they are for the time being adapted. Therefore, it is to a large degree their social ecology which determines which physical environment they will adapt to.

7. *Cultures and societies seek to eliminate chaos.* All social groupings evolve rules which pattern social relations within them and minimize chaos. This is simply a definition of the process of forming a society and a culture. This ideal patterning of relations is used by individuals predictively, and tends to develop the force of an ideology which allows individuals to minimize chaos in day to day relationships by interpreting those relationships in a non-statistical way (though it does not of course preclude manipulation of the system).

It would seem to be a feature of the social organization of nomadic groups that the native model does not define the minimal grouping (see above, paragraph 4). For instance, the herding units Peters talks about among the Bedouin (1960) only

combine in the bad season to form together the minimal unit of the native model.⁴ But this grouping remains an unhomogenized amalgamation of the smaller subsistence groupings, which do not show up on the agnatic genealogy (the native model) because they are formed of matrilocally related agnates. Above the level of this minimal grouping there are a range of social-organizational idioms, each of which allow groups of nomads to conceive of their societies as definite patterns of relationships: e.g., genealogy, lineage, noble and/or client and/or slave, patronymic groupings with dynastic families, contract.

A problem, generally avoided in the comparative study of nomads, is how to interpret the endogamous marriage preference of the Bedouin when practically all non-Middle Eastern nomads are exogamous. Part of the answer may be found in the extreme degree of corporateness of the grouping which ostensibly practices preferential patrilineal parallel cousin marriage among the Bedouin. But it must be remembered that endogamy among the Bedouin is a value, and scarcely even "preferential" in anthropological terms (cf. Lévi-Strauss 1969:xxx-xxxv). Father's brother's daughter marriage among the Bedouin may be characterized as first preference. I think the apparent anomaly of the Bedouin case may be accounted for if the distinction between the native model, the mechanical model and the statistical or empirical situation is kept clearly in mind. The mechanical model of the society would show simply cousin marriage (MBD and FBD). FBD marriage is an integral part of the native model simply because this is strictly within the idiom of the agnatic genealogy. And it is in this idiom because of the importance of the B-B and F-S relationships in the subsistence and inheritance processes. This is of course still by no means a complete explanation of all the differences of social organization between the Bedouin and, say, the Karimojong. My intention here is only to suggest the possibilities of the approach.⁵

⁴ If this is in fact what Peters' "tertiary section" is, for he does not give us the vernacular term. Confusion between native and analytical terminology is another common failing in the literature.

⁵ There is, of course, a whole literature on FBD marriage in the Middle East. The various interpretations which have been advanced are conveniently summarized in Khuri (1970). While all of them are of interest, none is sufficiently comprehensive. For instance, the most recent (Khuri 1970) discusses it in the context of Lebanese suburban social structure, and takes no account of the Bedouin context, where it is, supposedly, primary.

Conclusion

Nomadism is an extreme form of adaptation which generates extreme degrees of instability of minimal social groupings and requires a high degree of fluidity of social organization. There are, however, no forms of social organization or other cultural features which are either found in all nomadic societies or found exclusively in them. Careful study of them should, therefore, enable us to extrapolate and understand general social processes which are much harder to see in more stable societies. I do not claim that this model, as developed so far, is either definitive or comprehensive, but it may not be too early to suggest some possible implications:

1. The relationship between locality and descent may be an important dimension of the native model, but is seldom very close at other levels of analysis. W. Swidler has noticed among the Brahui that herding groups that settle become real descent groups (1969). The fact among certain settled communities derives from the ideology among nomads. Some concept of descent is the most common principle in native models of social organization. A major problem in the analysis of any society is the articulation of the descent idiom with the distribution of culturally relevant resources. The perspective of the model allows a more realistic approach to the relative importance of descent in settled and nomadic societies.

2. Anthropological "general knowledge" about lineage organization is a sophistication of this descent principle as it is found in the native models of certain African societies. Most of this writing begs the basic question of the articulation between lineage organization and segmentation on the one hand, and the composition and re-composition of minimal subsistence groupings on the other. A re-evaluation of the literature is urgently needed, which would make explicit the different levels of analytical model which are involved.

REFERENCES CITED

ASAD, TALAL

1970—The Kababish Arabs: power, authority and consent in a nomadic tribe. London.

- BARTH, F.**
 1956—Ecologic relationships of ethnic groups in Swat. *American Anthropologist* 58:1079-1089.
 1961—Nomads of south Persia. London: George Allen & Unwin.
 1964—Ethnic processes on the Pathan-Baluch boundary. In *Indo-Iranica*. G. Redard, ed., Wiesbaden.
 1966—Models of social organisation. Royal Anthropological Institute, Occasional Papers 23.
- BOSERUP, E.**
 1965—The conditions of agricultural growth. Chicago.
- CUNNISON, IAN**
 1966—Baggara Arabs. Oxford: Clarendon Press.
- DYSON-HUDSON, N.**
 1966—Karimojong politics. Oxford: Clarendon Press.
- DYSON-HUDSON, N. and V. R.**
 1969—Subsistence herding in Uganda. *Scientific American*, February 1969: 76-89.
- EKVALL, ROBERT B.**
 1968—Fields on the hoof; nexus of Tibetan nomadic pastoralism. Holt, Rinehart and Winston.
- GULLIVER, P. H.**
 1955—The family herds. London: Routledge & Keegan Paul.
- HAFEZ, E. S. E.**
 1962—The behavior of domestic animals. Baltimore, 2nd ed. 1969.
- HUDSON, ALFRED E.**
 1938—Kazak social structure. Yalc. HRAF 1964.
- JACOBS, ALAN H.**
 1965—African pastoralists: some general remarks. *Anthropological Quarterly* 38:144-54.
- IBN KHALDUN**
 1958—The Muqaddimah, trans. F. Rosenthal, Bollingen.
- KHURI, FUAD I.**
 1970—Parallel cousin marriage reconsidered. *Man* 5:4:597-618.
- KOPYTOFF, I.**
 1957—Culture areas and subsistence ecology of aboriginal Siberia. Unpublished M.A. thesis, University of Pennsylvania.
- LEACH, E. R.**
 1961—Rethinking anthropology. London: Athlone Press.
- LEVI-STRAUSS, C.**
 1969—The elementary structures of kinship. Boston: Beacon Press.
- LEWIS, I. M.**
 1961—A pastoral democracy. London: Oxford Univ. Press.
- LEWONTIN, R. C.**
 1968—The concept of evolution. *International Encyclopedia of the Social Sciences*.
- PAINE, ROBERT**
 1970—Lappish decisions, partnerships, information management and sanctions—a nomadic pastoral adaptation. *Ethnology* 9/1:52-67.
- PETERS, EMRYS**
 1960—The proliferation of segments in the lineage of the Bedouin in Cyrenaica. *Journal of the Royal Anthropological Institute* 90.
 1967—Some structural aspects of the feud among the camel-herding Bedouin of Cyrenaica. *Africa* 37/3:261-282.
- RUBEL, PAULA G.**
 1969—Herd composition and social structure: on building models of nomadic pastoral societies. *Man* 4:2:268-273.
- SALZMAN, P. C. and BRIAN SPOONER eds.**
 In press. Nomads of the Iranian Plateau.

SMITH, P. E. L. and T. CUYLER YOUNG, JR.

- 1971—The evolution of early agriculture and culture in greater Mesopotamia. In *Population growth: anthropological implications*. Brian Spooner, ed., in press.

SPOONER, BRIAN

- 1969—The status of nomadism as a cultural phenomenon. Paper delivered in symposium on Nomads at A.A.A. annual meetings in New Orleans, November 1969, revised version in press.
—Nomadism. In preparation.

STENNING, DERRICK J.

- 1957—Transhumance, migratory drift, migration; patterns of pastoral Fulani nomadism. *Journal of the Royal Anthropological Institute* 87:2.

SWEET, LOUISE E.

- 1965—Camel pastoralism in north Arabia and the minimal camping unit. Man, culture and animals. *American Association for the Advancement of Science* 78. Anthony Leeds and Andrew P. Vayda, eds., Washington, D. C.

SWIDLER, W. W.

- 1969—Some demographic factors regulating the formation of flocks and camps among the Brahui of Baluchistan. Paper delivered at symposium on Nomads at annual meetings of A.A.A. in New Orleans, November 1969, revised version in press.