One Factor Magic: A Discussion of Murdock's Theory of Social Evolution

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In the last decade Murdock's *Social Structure* had a varying impact on anthropological studies. Some of its terminology has become part and parcel of the technical anthropological vocabulary, while other aspects of his work such as the use of the Human Relations Area Files, or the feasibility of subjecting such data to statistical procedures have not been generally accepted[1].

In the present paper it is not our aim to enter these areas of discussion. Our intention is rather to question those sections of Murdock's work which are pertinent to the theory of human social organization. These sections contain Murdock's theory of social evolution and its application to historical reconstruction. This theory shows how parts of the social structure are functionally interrelated and how these relationships can be used to demonstrate a certain sequence of change among the component parts of the structure.

Goode (1959:182) characterizes the theoretical approach which Murdock uses as one in which the researcher sets up a hypothetically closed system and attempts to find interrelationships among its important variables. Underlying this approach is the assumption that no one variable is *primary,* but rather that any change in one of them brings about a predictable degree of change in the others. With this brief characterization of Murdock's theoretical approach in mind, let us now turn to his conception of social evolution.

Murdock first notes that "...the various aspects of social organization admit of only a very few, relatively obvious, alternative variations" (p. 200).

[1] See, KÖBBEN, A.J. (1952).

The reason for this has been explained earlier:

> Where there are no practical limits to the variety of responses which people can make in particular situations, cultural forms can vary endlessly... The situation is quite different where there are practical limitations to the variety of responses which people can make. Under such conditions cultural similarities will appear in many different places, irrespective of historical contacts... (p. 115).

And also:

> While kinship terms themselves show unlimited variability, the methods of classifying them do not. With regard to each of the nine criteria of classification, for example, there are only two alternatives; a people can choose only to recognize or to ignore generation, sex, affinity, etc., in assigning a kinship term to a particular relative. There are also limited numbers of possible or practicable marriage forms... preferential marriages... rules of descent... family forms..., and so on (pp. 115, 116).

Given the fact that in this sense limited variation in social organization exists, Murdock is then faced with the problem of explaining these similarities. His solution lies in the realm of what may be called the 'closed system' approach since it excludes limited variation among external factors from consideration in his analysis. Offering his reason for choosing this method he claims that he

> ...is unable to conceive of any single external factor capable of producing similar effects in remote and diverse geographical areas among peoples of contrasting levels of culture while at the same time allowing for wide differentiations among tribes with demonstrably close historical connections (p. 200).

However by limiting the sources for change in social organization to factors within this system itself and by expecting these factors to account for similar forms of social organization in remote areas and for dissimilar forms of social organization in closely related areas, Murdock is well on the road towards what we have called one-factor magic. It is interesting to watch this intellectual perambulation take place, and luckily Murdock, in his own words, has allowed us an intimate glimpse into just how the attraction of single factor causation pulls anthropologists into its snare. He says that

> We must look for some aspect of social organization which acts as a filter, which is capable of responding in only a limited number of ways but by each of them to a number of quite diverse external stimuli. Such a structural feature must, in addition, be peculiarly sensitive to outside influences and at the same time be itself especially competent to effect compensatory readjustments elsewhere in the system... The *one* (italics ours) aspect of social organization that is peculiarly vulnerable to external influences is the rule of residence (pp. 200-201).

Once the magical factor has been singled out, the evolution of kinship organization can be visualized as a consistent result of changes in residence patterns. Thus Murdock can now claim that

> It is in respect to residence that changes in economy, technology, property, government, or religion, *first* (italics ours) alter the structural relationships of related individuals to one another, giving an impetus to subsequent modifications in forms of the family, in consanguinal kin groups, and in kinship terminology (p. 202).

The skeptic may well wonder at this point whether some other less simple explanation could be advanced to describe the same evolution. Indeed Murdock has anticipated criticism and argues that the burden of proof must be taken by his critics since his evidence (including his deductive reasoning) lead him to conclude that social evolution must be explained by reference to components within kinship organization itself and primarily the residence rule among these components. His justification for taking this position is his "specific disproof in Chapter 8 that historical connections significantly affect the forms of social organization" (p. X). This disproof consists of the following amply documented argument:

> The scattering and almost random distribution of the traits of social organization, which is equally characteristic of remote or unrelated and of contiguous or related peoples, renders practically *useless* (italics ours) all historical interpretations based upon expectations of diffusion (p. 196).

Yet Murdock himself describes how such phenomena as Christianity, Islam, or the introduction of cattle, are all conditions which may lead to certain changes in residence rule, and subsequently, in social organization. Thus although various

aspects of social organization have probably not diffused as such, conditions intimately related to this aspects certainly have.

The puzzling almost random spread of kinship systems around the world does not necessarily disprove diffusionist explanations. It may also be due to the fact that kinship has been isolated from its context, that in other words its relation ship to the total social organization is not taken into account.

So far it has been emphasized that there are two closely related techniques in Murdock's work which predetermined the form and content of his theory of social evolution. Firstly, his attempt to use the "closed system" approach necessitates that any possible determinant of change which is outside the boundaries of his isolate (i.e. kinship organization) is kept separate from his discussion of changes taking place within the isolated area of study. Secondly, the complexity of social evolution is simplified by making all external factors operate through only one internal component of the isolate, namely the residence rule, which in turn sets off a series of changes within the kinship organization.

In order to test whether there is any validity in the temporal pre-eminence given in theory to the residence rule, it must be shown that no changes in kinship organization can take place without the occurrance of a *prior* change in the residence pattern. Luckily Murdock provides us with ample material to substantiate this point. He claims (p. 203) that factors promoting monogamy such as Christianity, or widespread poverty, or a change in the sexual division of labour, *also* favour neolocal residence. In other words a change in marriage rule certainly *does not follow* a change in residence rule! On the same page he tells us that conditions favourable to the development of the nuclear family and to the disintegration of clans and other large aggregates of kinsmen, are *also* responsible for a change in favour of neolocal residence. Again a change within the kinship organization admittedly *does not follow* changes in the residence rule.

Neolocal residence is held to be favoured by a modification of inheritance rules such as the replacement of primogeniture by the division of an estate (p. 204). Again this illustration

contradicts the primacy Murdock attributes to the residence rule in the process of internal adjustment to changed conditions.

Turning now to Murdock's discussion of factors favoring bilocal residence we find similar contradictions. Where the theory should call for a listing of "external" factors which cause changes in residence rule and subsequent changes in kinship organization, we notice instead statements such as the following:

> Differentiation in the status of children according to order of birth and primogeniture without regard to sex seems especially conducive to bilocal residence (p. 204).

And again,

> Anything which lessens the strength of unilinear bonds favours bilocal residence, provided that kinship ties in general are not weakened (p. 204).

Similar inconsistencies turn up in the author's discussion of factors promoting matrilocal and patrilocal residence rules. Thus for example:

> A relatively high status of women, which favours bilocal residence, is also conducive to marilocal residence... But whereas it is a women's comparative equality with man in property and other rights that promotes bilocal residence, it is her superiority to him, especially in production and in ownership of the principal instrument thereof — land — that favours matrilocal residence (p. 205).

And also,

> It (polygyny) is, however, particularly congenial to patrilocal residence, where women are isolated from their kinsmen and tend to be economically and socially inferior to men. Hence anything which favours polygyny likewise favours the development of patrilocal residence, e.g. Mohammedanism may have such an effect (p. 206).

From these quotations it appears that changes in residence rules do *not* necessarily precede other changes in social organization. Certain "external" factors may logically and empirically result in shifts and variations in descent rules, in the economic system, or even in marriage preferences. In other words these aspects of social organization, as shown by Murdock himself, seem to have as much "filtering" power in initiating chain reactions as the magical factor of residence rule. Despite this difficulty the

author goes on to discuss the effects brought about by changes in the residence rule. Everything is now turned upside down, for what had previously been discussed as causes which result in residence rule change, are now treated as effects of this change. The following excerpts illustrate this paradox:

> The shift to neolocal residence *results* (italics ours) in the emergence of the isolated nuclear family (p. 208).

Compare the above quotation with the following:

> The development of neolocal residence, in societies following other rules, appears to be favoured by any influence which tends to isolate or to emphasize the individual or the nuclear family (p. 203).

In other words, whatever favours the nuclear family, favors neolocal residence, favours the nuclear family, etc., etc! Circular reasoning is also evident in the following:

> A change to neolocal residence from any form of unilocal residence has a disruptive *effect* (italics ours) upon existing unilinear groupings (p. 208).

Compare this with:

> Since... any influence which tends to undermine or inhibit large local aggregation of kinsmen will create conditions favourable to neolocal residence (p. 203).

The reader is referred to Chapter 8 of *Social Structure* for more of these circular statements. The above quotations however clearly illustrate how Murdock substantiates his theory of social evolution. Much of what is attributed to the cause of a certain residence rule is also shown to be the result of that same rule. All this is quite natural when we consider that *Social Structure* is a correlational study which attempts to obtain sets of concomitant co-variants among the elements of kinship organization. However it is one thing to establish a relationship between variables such that a change in one brings about a predictable change in the other, and quite another thing to establish priority or causal connection.

It should be noted in passing that Murdock (1959) has recently retreated somewhat from a total reliance on one-factor causation. In an article on the evolution of social organization he says that he now believes that the "choice between the two

bilateral systems, Types 1 and 2, may be initially determined not by factors immediately affecting residence in marriage, but by shifts in property systems" (1959:140). He still however feels that residence rules are the primary determinants of unilineal kinship systems and are secondary or derivative in the evolution of bilateral organizations. This retreat is therefore far from being a route. Murdock still adheres to a "closed system" approach and continues to connect many aspects of kinship organization to non-kinship factors through the causal aegis of the residence rule.

Although Murdock's approach suggests interesting and empirically verifiable interrelations among the elements of kinship organization, it has not, in our opinion given us much insight into the actual mechanism of social evolution. Consider in brief his reconstruction of the evolution of kinship organization. Eleven major types are distinguished on the basis of certain criteria. Each is again subdivided on the basis of residence rules, giving a total of forty-seven types of kinship systems. It is then argued on the basis of correlations previously established, that certain types can only give rise to a limited number of other types. For example bi-Eskimo can only change into normal Hawaiian, matri-Eskimo to matri-Yuman, matri-Fox or normal-Nankanse. However if these rules are applied literally for all types, it does not take too many changes before all the forty-seven types have changed into only seven[2]! It must be assumed

[2] The following table indicates what happens if Murdock's rules of change from chapter 8 of *Social Structure* are applied to his forty-seven types in a regular progression.

Table of Murdock's Kinship Types
and the Changes Which They Go Through in Time

Type	I	II	III	IV	V	VI	VII
Normal Eskimo	1	?					
Bi-Eskimo	1B	2	?				
Matri-Eskimo	1M	3M,9,4M.	10,11.	11	?		
Patri-Eskimo	1P	3,4,5.	4P,6,7,8.	6,7,8.	7,8.	8	?
Normal Hawaiian	2	?					
Neo-Hawaiian	2N	1	?				

Matri-Hawaiian	2M	3M,4M,9.	10,11.	11	?		
Patri-Hawaiian	2P	3,4,5.	4P,6,7,8.	6,7,8.	7,8.	8	?
Normal Yuman	3	6	7,8.	8	?		
Bi-Yuman	3B	2	?				
Matri-Yuman	3M	10	11	?			
Neo-Yuman	3N	1	?				
Normal Fox	4	4P,7,8.	6,7,8.	7,8.	8	?	
Bi-Fox	4B	2	?				
Matri-Fox	4M	11	?				
Neo-Fox	4N	1	?				
Patri-Fox	4P	6,7,8.	7,8.	8	?		
Normal Guinea	5	6,7,8.	7,8.	8	?		
Bi-Guinea	5B	2	?				
Neo-Guinea	5N	1	?				
Normal Dakota	6	7,8.	8	?			
Bi-Dakota	6B	3B	2	?			
Neo-Dakota	6N	3N	1	?			
Normal Sudanese	7	8	?				
Bi-Sudanese	7B	4B	2	?			
Neo-Sudanese	7N	4N	1	?			
Normal Omaha	8	?					
Bi-Omaha	8B	4B	2	?			
Neo-Omaha	8N	4N	1	?			
Normal Nankanse	9	?					
Avuncu-Nankanse	9A	?					
Bi-Nankanse	9B	2	?				
Duo Nankanse	9D	5	6,7,8.	7,8.	8	8	?
Neo-Nankanse	9N	1	?				
Patri-Nankanse	9P	1P,2P,9D.	3,4,5.	6,4P,7,8.	6,7,8.	7,8.	8
Normal Iroquois	10	11	?				
Avuncu-Iroquois	10A	11A	?				
Bi-Iroquois	10B	3B	2				
Duo-Iroquois	10D	6	7,8.	8	?		
Neo-Iroquois	10N	3N	1	?			
Patri-Iroquois	10P	10D,3.	6	7,8.	8	?	
Normal Crow	11	?					
Avuncu-Crow	11A	?					
Bi-Crow	11B	4B	2	?			
Duo-Crow	11D	4P,7,8.	6,7,8.	7,8.	8	?	
Neo-Crow	11N	4N	1	?			
Patri-Crow	11P	4	4P,7,8.	6,7,8.	7,8.	8	?

The possibilities of change are as follows:

From 1B to 2; from 1M to 3M, 4M, or 9; from 1P to 3, 4, or 5 (p. 228).
From 2M to 3M, 4M, or 9; from 2N to 1; from 2P to 3, 4, or 5 (p. 230).

that these seven types have somehow the power to regenerate the original forty-seven but Murdock does not show us how this is done. Yet he claims that this classification of kinship organization may be regarded as a maze in which a society can start at any given point and arrive at any other point (p. 221).

It is our opinion that the study of social évolution is a promising field of inquiry. Indeed among contemporary anthropologists Murdock has made a major contribution in reorienting research interest back into this field. However in terms of theory construction in the field of social evolution our discussion has directed attention to several important points. The study of social evolution, and for that matter social change in general, should not be oriented towards the treatment of certain easily selected aspects of social organisation which are analysed as a 'closed system.' The limited variability of social structure may well reflect our present state of descriptive methodology and in no way justifies any attempt to construct a theory of social evolution based on the proven interrelationships of component parts in the 'closed system.'[3]

The discussion has documented our position concerning the correlational method used in conjunction with a 'closed system' approach. Correlations which are concomitant cannot be utilized for the establishment of temporal priorities which have occurred

From 3 to 6; from 3B to 2; from 3M to 10; from 3N to 1 (p. 232).
From 4 to 4P, 7, or 8; from 4B to 2; from 4M to 11; from 4N to 1; from 4P to 6, 7, or 8 (p. 234).
From 5, to 6, 7, or 8; from 5B to 2; from 5N to 1 (p. 235).
From 6 to 7 or 8; from 6B to 3B; from 6N to 3N (p. 237).
From 7 to 8; from 7B to 4B; from 7N to 4N (p. 239).
From 8B to 4B; from 8N to 4N (p. 240).
From 9B to 2; from 9D to 5; from 9N to 1; from 9P to 1P, 2P or 9D (p. 242).
From 10 to 11; from 10A to 11A; from 10B to 3B; from 10N to 3N; from 10D to 6; from 10P to 10D or 3 (p. 244).
From 11B to 4B; from 11N to 4N; from 11P to 4; from 11D to 4P, 7 or 8 (p. 247).

Column I represents the forty-seven types which Murdock distinguishes. Column II represents those types which can be arrived at by applying the rules of change. Column III represents those types which emerge if the rules of change are applied to the types in column II. This operation has been repeated for columns IV, V and VI. It should be noted that no possibilities of change are given for types 1, 2, 8, 9, 9A, 11 and 11A.

in man's social evolution. This is due to the fact that such correlations are reversible in their effects on one another and with such data evolution becomes a 'chicken and egg' question which cannot be resolved. Furthermore, if such a method is employed and social evolution is the research goal, then the researcher is easily tempted to arbitrarily choose one primary component in the 'closed system' which responds to outside influences first, then causes chain reactions of changes to occur within the system. In the study of social evolution temporal priority of causal factors cannot be assumer, they must be demonstrated, and if evolution is multilinear they must be irreversible.

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[3] In a recent article, Hsu (1959) has commented on the pitfalls facing anthropologists who attempt to do comparative analysis on certain segments of social organization, such as kinship, which are easily available.