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**The “Archaeology” of Social Relations and Its Paradoxes: The Origins of Modern
Humans in the Light of an Updated Theory of Historical Transformation of
Kinship Terminologies**

Introduction

The purpose of the present report is twofold. First, I will present some of the results of my doctoral research on the historical aspects of kinship terminologies, which I conducted at St. Petersburg State University and the Peter the Great Museum of Ethnology and Anthropology in 1992-1997. Second, I will attempt to interpret these results with the view that they cast an unusual light on human origins and the evolution of human cultures.

Traditionally the evolutionary theory of human origins has been built on the basis of evidence and interpretive schemas emanating from such “material” disciplines as archaeology, physical anthropology, paleontology and genetics. Such phenomena as fossils, physical characteristics and genes have so far been considered the only reliable source of information about the origins and development of modern humans (*Homo sapiens sapiens*). The dominant paradigm holds that modern humans appeared as the outcome of a progressive mutation of hypothetical ancient primates, through several intermediary hominid stages. Paleontology and archaeology suggest that the worldwide dispersal of proto-humans began about 100,000 years ago in East Africa. The emergence of anatomically modern humans historically preceded the formation, around 40,000-60,000 years ago, of behaviorally modern humans, the latter being characterized by fully developed language and culture (Klein, 1989). In this case, the failure of all the attempts to reconstruct the process by which the unavailability of language and culture was succeeded by their full and rapid development stands sharply against a neat and alluring theory of the humans’ anatomical progress.

Accordingly, noumenal entities such as language, kinship structures and mythology have been constantly underrated by evolutionists as independent sources of information about the *whole* process that have brought about the current diversity of humans. Apart from the problematic of human origins and the formation of modern biological and cultural diversity within the human species, culture is being gradually recuperated as a vital determinant of human behavior. As early as 1966, Clifford Geertz wrote that

“culture, rather than being added on, so to speak, to a finished or virtually finished animal, was ingredient, and centrally ingredient, in the production of that animal itself” (Geertz, 1973: 47).

Recently, within his theory of coevolution, one of the leading American evolutionists and the last chair of the Stanford University Anthropology Department, William Durham, has argued that human behavior is an organized interaction between two independent, equally important and simultaneously co-resident inheritance systems, biological and cultural (Durham, 1991). In a recent paper summarizing genetic, archaeological and linguistic evidence on the problem of human origins, Colin Renfrew complained that “no adequate consideration has as yet been given to kinship structures” (Renfrew, 1992: 470).

The Concept of Kinship and the Historical Significance of Kinship Terminological Systems

The dominant evolutionary theory of the origins of modern humans takes for granted that its basic operational category, namely kinship, can be exhaustively defined as having to do with descent, genealogy and procreation. Meanwhile the current condition of kinship theory is characterized by the progressive renouncing of the view according to which a biological connection constitutes the essential basis of kinship and the genealogical approach is capable of providing a systemic focus on this phenomenon. As it was expressed by David Schneider,

“The notion of a pure, pristine state of biological relationships “out there in reality” which is the same for all mankind is *sheer nonsense*.... If the assumption is that since kinship is merely the social recognition and misapprehension of biological facts, then that assumption ought to be discarded since it is ridiculous. It is silly in part because the mere existence of a network of biological ties *means nothing for the network of kinsmen by itself*” (Schneider, 1965: 97-99, italics added).

Reclaiming kinship as a cultural or social, rather than a biological, category has two important implications for the present discussion. First, every kinship system stops being seen as a mere execution of the apriori postulated, static and universal genealogical model but acquires the status of a continuously unfolding, diachronically organized configuration of symbols, categories, actions and practices. The temporal factor brings about the interpenetration and implosion of conceptual and physical as well as terminological and substantial parameters of kinship. A kinship system embodies the idea of chronotope (from Greek *chronos* “time” and *topos* “space”) suggested both by Einsteinian physics and Bakhtinian literary formalism. Paraphrasing Mikhail Bakhtin (Bakhtin, 1981(1937): 84), in a kinship system, time “takes on flesh”, while the genealogical relations become charged and responsive to time and history.

Second, in a manner contrary to the conventional understanding, kinship comes to be viewed not as synonymous with sameness or replication but as fundamentally related to the opposite category of diversity, variability, mutability. As Roy Wagner (Wagner, 1977) has shown, kin differentiation or the concatenation of interdictions embodied in conceptual categories and practical behavior allows the flow of relationship to establish itself in society. Resemblance and the sharing of a substance are therefore not the preordained invariants but an outcome or, I could say, a “surplus product” of mutability. Kinship has to do with biology not so much in terms of reflecting the replication of an inherited substance but in terms of the

progressive reduction of phenotypic (physical and behavioral) complexity.

In other words, kinship is not a matter of avoiding disjunctive categorization, as it appears to be to Joseph Greenberg (Greenberg, 1990 (1980): 320) but a transformative process whereby disjunctive categories become realized as conjunctive ones. It has been experimentally proven that disjunctive categories are more difficult to learn (Bruner *et al.* 1956: 1956). The chief reason seemingly is that a temporal delay occurs between the point at which a disjunctive category is constructed and the point at which the rationale underlying this construction is revealed. The complexity of a cognitive system can therefore be assessed by the number of disjunctive categories it is able to produce.

The implication of this understanding of kinship for a theory of human origins is the following: instead of searching for commonalities between *Homo sapiens* and other species, the main emphasis should be put on the differences that set humans asunder from the rest of the natural world. It is not unity that precedes difference but the contrary: differentiation gives rise to unity and the principles of mutability are absolutely older than those of inheritance. This necessarily implies that cultural evidence has a priority over biological or paleontological evidence in the discussion of the origins of modern humans. It also challenges the fundamental idea of the dominant evolutionary discourse that culture constitutes the “second inheritance system” (Durham, 1991). Culture instead is a primary mutability system.

Taking into account the cross-disciplinary significance of kinship phenomenon, kinship can be understood as involving several distinctive conceptual units. The *genotype* comprises a biologically inherited set of DNA molecules. The *phenotype* is an empirical, biological and behavioral set of features only partly determined by individual genotype (Lewontin, 1982: 18). All phenotypic traits *recognizable* by any pair of kinsmen as important for their relationship can be called *idenotype*. The idenotype requires interaction between at least two phenotypes and constitutes any particular and strictly individual relationship between two persons. For example, the word *father* is used by all members of a given language community but the actual content of it varies with each and every individual. The interaction between two phenotypes implies the workings of two basic kinship operations: the objectification of oneself and the identification with the other. A *kinship system* is a set of relations between the whole variety of idenotypes realized within a given community and the latter’s social institutions (rules of descent and marriage, corporate groupings, political apparatuses, economic organization etc.). A *kinship terminological system* reflects those aspects of the kinship system that ensure a meaningful communication. A kinship terminological system, as Dwight Read stressed (Read, 1984), is not mapped onto a genealogical space but possesses a logical structure of its own. Together with pronouns, personal names, ethnonyms and paronyms (names of body parts), kin terms form a class of *identitives*. Ego is not artificially inserted into the kinship terminological system but as the first person pronoun is intrinsically a part of this system.

In this context, *Homo sapiens* means not simply anatomically, or behaviorally modern humans but idenotypically modern humans, i.e. a population in which physical and behavioral differences are monitored and processed through the operations of self-objectification and identification. In my opinion, it is the idenotype and not the genotype that should be emphasized in an evolutionary theory of the origins of modern humans. The historical meaning of kinship lies in the

synchronization of the two polar levels of complexity, the idenotypical and the categorical. The reconstruction of an ancestral human idenotype means the reconstruction of an ancestral kinship terminological system. The complexity of kinship categorization will be the indicator of the complexity of the idenotype, and the most complex idenotype will be the absolutely oldest one.

Lewis H. Morgan was the first scholar who demonstrated that kinship terminologies warrant special attention as a tool for deep historical reconstructions. Among their distinctive qualities, he noted “permanency, systematic character and continuity of changes” (Lévi-Strauss, 1963: 300). Although Morgan is widely recognized as a pioneer in the study of social evolution, his initial interest was to use kinship terminologies as a source of information about genetic relationships between human groups and languages (Morgan, 1871: V-VI). As a continuation of this perspective, several studies on Oceania (Murdock, 1968), Siberia (Chlenov, 1978) and India (Dumont, 1953; Yalman, 1967; Trautmann, 1981) have indicated that the patterns of kin grouping are sensitive to large-scale ethnogenetic processes. Alternatively, since kinship terminologies form a distinctive, logically complete group in every human language and are composed of lexical units that are semantically closer to each other than to any other words, their developmental sequences represent a systematic exercise in historical semantics. The number of semantic distinctions employed by kinship terminological systems around the world is virtually innumerable, a fact that makes kinship typologies a no less vital part of historical linguistics than conventional phonological and morphological data.

The Historical Typology of Kinship Terminologies Updated

Laying the foundations of the historical study of kinship terminologies, Morgan defined two central principles of kin grouping, namely the bifurcation and merging of linear and collateral relatives. The subsequent contributions made by Rivers, Lowie, Kirchhoff, Murdock and Kryukov on the basis of a wealth of cross cultural evidence circumscribed the four basic types of kinship nomenclatures and organized them in a developmental sequence from the Bifurcate Merging system to the Bifurcate Collateral and Generation systems to the Lineal system. Since in fact many “Generation” systems lack generational unity (Kernan and Coult, 1965) and since the term itself does not reflect the underlying principle of grouping, I prefer to call this type of nomenclature “Incorporating”.

In this specific field of historical typology of kinship nomenclatures, static and genealogical models captivated the scholars’ attention much as they did in the general interpretations of the nature of kinship. Horizontal relations between siblings and cousins, parents and their siblings, one’s own children and the children of one’s siblings, maternal and paternal grandparents and their siblings overshadowed vertical and temporal relations between individuals of different age and generation, on the one hand, and the relations of parity (parallel and cross sex relations), on the other. Consequently an independent set of kinship terminological systems was either treated as odd and anomalous or forced into the straitjacket of a genealogical matrix. This set of terminological patterns is organized around the concept of generation and includes the Self-Reciprocal terminology, the Cross Generation (Crow and Omaha) terminology, the Sliding Generation terminology, and the Cumulative terminology.

In a Self-Reciprocal system, the speaker uses a single term for a pair of polar

categories (grandparent/grandchild, uncle/aunt/nephew/niece, parent/child). This principle is usually called the equivalence of alternate generations.

The Cross Generation pattern merges categories belonging to different generations without self-reciprocity. For instance, one of the major varieties of Crow uses one term for mother's brother and mother's brother's son and one term for mother (or mother's sister) and mother's brother's daughter. The Omaha model can be exemplified by a nomenclature that merges father and father's sister's son, father's sister and father's sister's daughter. Crow and Omaha override generational distinctions along either the patriline or the matriline, hence these patterns firmly correlate with unilateral (matrilateral in the case of Crow and patrilateral in the case of Omaha) descent (Lowie, 1930).

The Sliding Generation terminology occurring almost exclusively in Siberian languages establishes the *transitivity of relative age*: special generations are formed by means of merging the younger members of an ascending generation with the older members of a descending one.

The Cumulative model, which distinguishes Afroasiatic, North Caucasian, Kartvelian, Balto-Finnish and some Indo-European kinship nomenclatures, links the categories from different generations grammatically. It operates with several basic terms for mother, father, brother, sister, son and daughter and combines them in constructions literally glossed as "father's brother", "father's brother's son", "mother's brother", "mother's brother's son" etc.

My analysis of some 600 kinship nomenclatures demonstrates a remarkable feature of the Self-Reciprocal pattern, namely that only its full presence, gradual simplification or dissolution, and not its emergence out of other forms can be empirically attested. This regularity is an indisputable evidence of its primeval position among the other terminological variations of the generation concept. Nick Allen (Allen, 1986; Allen, 1989) rightly places the alternate generation equivalence systems at the root of his evolutionary schema of kinship terminologies. Allen limited his attention to the grandparent/grandchild equivalence and, according to his model of the ancestral social structure, the equation of alternate generations is coresident with the Bifurcate Merging pattern of horizontal grouping. Meanwhile a significant number of kinship nomenclatures establish self-reciprocity between other polar intergenerational relations. Father can be classified with son, father's brother - with brother's child, mother's brother - with sister's child, mother with daughter etc. Since kinship terminologies vary in the number of intergenerational self-reciprocal terms and the Self-Reciprocal model displays only the tendency for decomposition, I suggest that an ancestral type of kinship terminological system must have been characterized by the self-reciprocal designation of *all* intergenerational connections.

In this case, the horizontal arrangement of categories in the +1 and -1 generations will be necessarily of the Bifurcate Collateral type, with the father's brother/brother's child pair terminologically separated from the mother's brother/sister's child pair and the father/child pair. The transformation of the Bifurcate Collateral pattern associated with the intergenerational self-reciprocity was recorded by Morris Opler in the Southern Athabaskan kinship terminological systems (Opler, 1936). With the decomposition of the Self-Reciprocal terminology in the +1/-1 generations, the nomenclature assumes the Bifurcate Merging pattern.

The Crow and Omaha terminologies have been proven to be associated predominantly with the Bifurcate Merging horizontal pattern. It is easy to notice that

these asymmetrical systems are complementary to each other and their integration will produce a set of intergenerational self-reciprocal equations. Thus historically Crow and Omaha are the result of the dissecting of the symmetrical self-reciprocal terminologies. My data coming from the Dagestanian terminologies in Northern Caucasus further confirm the developmental model of Gertrude Dole (Dole, 1972) according to which Crow and Omaha historically precede the Cumulative terminology. As Dole argued, the Cumulative type is in turn succeeded by the Lineal pattern found in Indo-European nomenclatures. However the evolutionary sequence from Crow/Omaha to Cumulative is not the only possible avenue of change as far as the concept of generation is concerned. Kinship terminological systems of the Altaic languages demonstrate the copresence of Omaha and the Sliding Generation pattern in some languages and the full domination of the latter in others (particularly Bashkir and Tatar). Sliding Generation therefore can be placed in the same historical stage as Cumulative. If Crow is opposed to Omaha along the lines of matrilinearity /patrilinearity, the relative age transitivity principle of Sliding Generation is opposed to the Cumulative principle of relative filiation.

Turning now to the intragenerational differentiation, it should be stressed that, unlike the modern European system of two self-reciprocal terms *brother* and *sister*, many other kinship terminologies employ a sophisticated categorization of the sibling set. As Murdock demonstrated (Murdock, 1968), the most complex type operates with 6-8 terms that can be glossed as “elder brother (man speaking)”, “elder brother (woman speaking)”, “younger brother (man speaking)”, “younger brother (woman speaking)”, “elder sister (man speaking)” etc. Three other types, namely the Age-Sex type, the Skewed Age type and the Relative Sex type also display a fairly high level of differentiation.

Students of Austronesian languages and societies (Clark, 1975; Hage and Harary, 1996: 231-261) have come to the conclusion that a Proto-Austronesian sibling terminology had employed the categories of relative age and parity that were lost in many of the modern Austronesian languages. My observations on kinship terminologies make it possible to treat this tendency as a fairly general one: in the sibling set, the reduction of the number of terms and the decrease in their complexity prevails over the reverse process. There is also evidence that suggests that the complexity of sibling differentiation in terms of relative age and parity corresponds to a lack of distinctions between siblings and cousins. With the simplification of sibling nomenclature, the Incorporating type of grouping siblings and cousins tends to be replaced by the Bifurcate Merging type. This transformation, for instance, is recorded in the Snake River Shoshone nomenclature: new terms for cross cousins replaced the terms that were identical with sibling terms and the relative age distinctions were lost (Steward, 1938). Likewise, in the Teton Dakota kinship terminology, special cross cousin terms derived from affinal terms replaced an older mode of designation of cross cousins as siblings (Lesser, 1930: 567).

By piecing together the ancestral intergenerational pattern with the ancestral intragenerational pattern, we necessarily arrive at the ancestral type of kinship terminological system. Every pair of polar categories belonging to the $+/-2$ and $+/-1$ generations was designated by a self-reciprocal term, while the Ego generation was defined by the dyads of non-reciprocal terms arranged along the lines of relative age. Finally both the self-reciprocal intergenerational terms and non-reciprocal intragenerational terms were sensitive to the criterion of cross/parallel sex

differentiation. Horizontally the ancestral kinship terminological system was Bifurcate Collateral in the +1 generation and Incorporating in the Ego generation. Thus the ancestral Self-Reciprocal pattern eventually transforms into the Lineal pattern and intragenerational self-reciprocity, through the intermediary stages of divergence, first, into the Crow and Omaha types and then into the Sliding Generation and Cumulative types. The evolution of the generation-based types of nomenclature is seemingly a unidirectional process: Crow/Omaha cannot emerge prior to Self-Reciprocal, while Cumulative and Sliding Generation are of necessity subsequent to Crow/Omaha.

Implications of the Kinship History for the Problem of Human Origins

As can be now ascertained, the ancestral kinship matrix possessed a well-defined structure, a finite number of categories and the regularity of internal linkages. However it was not a genealogical but an *idenological* grid. Within the idenological grid, relations between people are conditioned not by an *external* system of reference but by the processes *generated* by these very relations. The genealogical matrix *simulates* time by the endless duplication of a set of horizontally organized conjunctive categories, while the idenological matrix *exists* in time by establishing a unity between diachronically separated categories. All ancient patterns of vertical kin grouping (intergenerational self-reciprocity, cross generation equations, relative age transitivity and parity) are the widely spread examples of disjunctive categorization. Symptomatically enough, componential analysis, which operates with Boolean class products (Lounsbury, 1968 (1964): 127), turned out to be inapplicable to these models (Elkins, 1968: 188). Genealogy is a map that can serve as a guide through a real landscape but it in no way determines it. It has a methodological but not an ontological priority: historical reconstructions of human origins start with genealogy but should arrive at the primacy of idenology.

The ancestral type of kinship terminological system is a matter of reconstruction. None of the extant kinship nomenclatures has fully preserved this proto-system, which is easily understandable, for nothing enjoys a complete stability. Nevertheless it is possible to circumscribe the population whose kinship terminologies provide the empirical basis for this reconstructed system and which therefore have diverged least of all from the ancestral human idenotype. Likewise it is possible to determine the homeland of the population that has diverged least from the ancestral human idenotype. It is from this territory that the dispersal of humans must have begun.

The distribution of the intergenerational Self-Reciprocal terminologies around the world displays stable regularities. Numerically the largest number of Self-Reciprocal varieties is reported for American Indian nomenclatures. In my sample, 324 languages show intergenerational Self-Reciprocal traits. These traits appear in 135 American Indian languages, in 80 languages of Oceania, 51 language of Australia, 12 languages of South and Southeast Asia, 43 African languages, and 3 languages of Northern Eurasia. More importantly, however, 15 American Indian kinship terminologies exhibit the strongest form of intergenerational Self-Reciprocity, namely the one that is marked by self-reciprocal terms for grandparents/grandchildren and parents' siblings/siblings' children differentiated also by parity and linearity. In the Old World, the strongest form of intergenerational reciprocity was reported only for 3 languages of Oceania and Australia and 1 language of Northern Eurasia.

The distribution of intragenerational kinship patterns yields a similar picture. Murdock's Complexly Differentiated type is exclusively found in 37 American Indian languages. The next most diverse pattern is reported for 6 families and 13 individual languages in the Americas, Austronesian family, Korean and Burushaski languages in Asia, Bantoid, Furian and Northern Khoisan languages in Africa. The Age-Sex and Relative Age types again demonstrate the highest frequency in America (Murdock, 1968: 5-7).

Besides the overall preponderance of ancestral terminological patterns, American Indian kinship terminological systems demonstrate the highest level of diversity. For instance, all the types of vertical kin groupings, including Sliding Generation and Cumulative that are otherwise characteristic of particular zones in the Old World, are found in America. In biology (Cavalli-Sforza and Cavalli-Sforza, 1995: 67) and linguistics (Dyen, 1965: 15; Dolgopolsky, 1987: 11-12), it is generally believed that the oldest population will display the greatest diversity. Following this argument, I hypothesize that the homeland of modern humans is in America, specifically in the broad area including the western part of the modern United States and modern Mexico. It is the populations speaking Uto-Aztecan, Penutian, Hokan, Kiowa-Tanoan, Keresioan and Oto-Manguean languages that demonstrate the closest approximation to the ancestral kinship terminological system. All the kinship terminology patterns in the Old World are actually derivative of American Indian systems.

Otherwise kinship evidence supports many of the contemporary interpretations of deep human history. For instance, a comparison with Renfrew's model (Renfrew, 1992) reveals that the populations engaged in "initial dispersals" (prior to 15,000 BP), namely the Australian, the Khoisan, the Nilo-Saharan and the Indo-Pacific groups, possess fairly ancient kinship patterns. Agricultural and nomadic dispersals (after 10,000 BP) involving Afroasiatic and Altaic populations correlate with the Sliding Generation and Cumulative kinship terminologies. The formation of the Proto-Indo-European population in Anatolia around 6,000 years BP and its later migration north and west underlie the transformation of the Cumulative type into the Lineal type. The classification of the Khoisans and the Ethiopians together, on the basis of genetic frequencies evidence (Cavalli-Sforza, et al. 1988), cannot be attested linguistically but finds support in kinship terminologies, for the nomenclature of Ethiopian Gurage lacks the Cumulative pattern of the Afroasiatic family and shares with the Khoisans the important feature of a modified intergenerational reciprocity.

It is worth mentioning that the kinship terminological systems of the Khoisans, who are believed to have separated from proto-humans first, possess many ancient traits but are totally derivative of Amerindian patterns. Kinship terminological systems in Oceania and Australia claim a far greater historical depth than African systems. In the Old World, the highest proximity to the ancestral human idenotype is displayed by Northern Australian groups considered also the most diverse linguistically in the Australian family (Ruhlen, 1991 (1987): 187) and by some of the Trans-New-Guinean-speaking groups¹. It seems that these areas were populated earlier than the time of

¹ The validity of kinship terminological systems as the sources of information about deep populational processes is further demonstrated by the fact that the degree of decomposition of the intergenerational self-reciprocity in the kinship nomenclatures of the non-Austronesian groups in Oceania is noticeably smaller than in the terminologies of the Austronesian-speaking "newcomers".

the Khoisans' coming to Africa. The Bering Strait is the most probable – but may be not the only – route that was taken by early humans on their way to the Old World. The kinship terminologies of Siberian peoples were significantly altered in the course of post-glacial migrations and nomadic intrusions but the Sami have retained a nomenclature typologically very similar to American Indian patterns.

My claim that American Indians constitute the earliest human population stands in sharp contradiction with the archaeological tradition that holds that the earliest traces of humans in America date back to no earlier than 10,000-12,000 BP. However this position is not indisputable. A group of American archaeologists have recently proposed an alternative paradigm according to which some findings on the American continent can be interpreted as extending the time depth of the human presence in America to 60,000-70,000 BP (Bryan, 1986). Despite the fact that most archaeologists reject any possibility of human presence in America before 12,000 BP, serious linguistic research conducted by Johanna Nichols (Nichols, 1990) showed that about 50,000 years were required to derive the 140 stocks of Greenberg's Amerind phylum from a single ancestral lineage. The unprecedented controversy between the Greenbergians and traditional historical linguists regarding the classification of American Indian languages can be mitigated by the conclusion that the unity of the Amerind is a matter not of 12,000 BP but of a much more remote date. Cavalli-Sforza's interpretation of the genetic evidence also suggests a temporal range for the peopling of the Americas as far greater than it is assumed by archaeologists, namely 15,000-35,000 BP (Cavalli-Sforza and Cavalli-Sforza, 1995: 122). Moreover a genetic study conducted among a group of Nootka Indians of the Pacific Northwest has shown that a latest date of the divergence of the community's 28 lineages is 41,000-78,000 BP (Ward *et al.* 1991).

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