THE UNIVERSITY of EDINBURGH

Edinburgh Research Explorer

Unity vs. Interdisciplinarity

OPEN ACCESS

Unity versus Interdisciplinarity

A Future for Anthropology

by Alan Barnard

This paper explores the failure of anthropology, at least since the 1970s, to look at the big picture: what the four fields can contribute to each other. It focuses on kinship as a key example, on other aspects of sociality, and on language and symbolic thought. I argue that an understanding of humanity as a whole, and especially hunter-gatherers, is important for grasping the nature of the human species. Cultural or social anthropology progressed to a large extent through kinship studies, and it is here also that we should look. The transformation of a Ju/'hoan kinship structure to a Khoe one is used as one key example. The deeper history of language itself is another. After these examples, I return to general issues, including the ways in which the diverse branches of anthropology, especially social anthropology and linguistic anthropology, serve to enlighten each other.

My main point in this paper is very simple. All kinship systems possess similar attributes, the explanation of which requires input from the entire range of anthropological sciences. I include here prehistoric archaeology, biological anthropology, anthropological linguistics, and social or cultural anthropology too. Related fields are implicated as well: evolutionary psychology, cognitive science, and so on. That is why a unified science of anthropology is useful, once we step beyond ethnographic and human biological understandings toward fully evolutionary ones. Of course, the timescale is often very different between evolutionary anthropology and kinship studies. This is especially true where evolution implies changes over millennia and kinship assumes social change over just a few centuries. This paper will touch on both.

Let me take up general issues first, before returning to my kinship examples and then to wider issues once again. If there seems to be an emphasis on social or cultural anthropology and on linguistic anthropology, that is because these are the fields I know best. The interplay between them, at any level of evolutionary development, could equally apply to the other fields as well.

The Four-Field Approach and Understanding Prehistory

I use the words "prehistory" and "prehistorian" in a very broad sense, to include not only archaeologists but also anatomists, neuroscientists, geneticists, primatologists, linguists, and social anthropologists who have a theoretical interest in prehistory. Even to think about such issues entails a way of thinking that is largely foreign to anthropology today. It is nevertheless both necessary for anthropologists to do this and interesting for the future of the discipline as a unified science.

I have not always been in favor of a four-field approach, but in recent years I have come to the conclusion that such an approach is best. Otherwise, it is too easy for biological anthropologists to retreat into concerns that leave them out of touch with the richness of cultural diversity in the world and for social (or cultural) anthropologists to remain ignorant of advances in palaeoanatomy, neuroscience, genetics, and many other fields that directly affect our perception of what it means to be human. This is, after all, what anthropology in its widest sense is meant to be all about. In particular, such an approach is necessary to reunite anthropology with its past as well as to stave off encroachment by social sciences with different understandings of humanity. Of all the social sciences, only anthropology is in a position to see the bigger picture, and only with an eye to human biology is it in a position to effect the changes in understanding that are needed.

Human evolution has existed for far longer than humanity as we know it. Humans have evolved through revolutionary changes in social life, and these have both biological and cultural foundations. How many cultural revolutions were there? I would say three, four, maybe five or six, throughout prehistory from *Australopithecus* to *Homo sapiens sapiens*. Most certainly were both biological and cultural. And at least one, if we include the Neolithic, was cultural alone. Only by seeing human evolution from such a broad perspective can we begin to understand the parts of anthropology that are my main interest at present: notably, kinship and language. I see

Alan Barnard is Professor Emeritus in the Department of Social Anthropology at the University of Edinburgh (15a George Square, Edinburgh, Scotland EH8 9LD, United Kingdom [a.barnard@ed.ac.uk]). This paper was submitted 18 IV 15, accepted 05 I 16, and electronically published 31 V 16.

these as ultimately interrelated and related, too, to the acquisition of symbolic thought and even the evolution of religious ideologies (see Ellis 2011; Wilson 2011).

Yet the steps entailed in this evolution are complicated. Broadly, prehistorians (and especially the archaeologists among them) fall into two camps. Either they believe in one really big revolution, or they believe in no revolutions at all. The actual number of revolutions does not matter as much as the idea of searching for such revolutionary changes in society, or for cultural advances, or, for that matter, for the debates that can emerge from seeking them. An example of an advocate of the "one-revolution" view is the social anthropologist Chris Knight. The clearest examples of the "no-revolution" view are from archaeology. In particular, Sally McBrearty and Alison Brooks, in a paper published in the *Journal of Human Evolution* (McBrearty and Brooks 2000), argue that both the fossil record and the stone-tool evidence point to a gradual development of *H. sapiens* and the *H. sapiens* brain.

Knight, in *Blood Relations* (1991) and in many articles since (see, e.g., Knight 2010; Knight, Power, and Watts 1995), has argued on the basis of cultural evidence that there was one revolution. This was a revolution of the sort that McBrearty and Brooks refer to as "the revolution that wasn't." Its date has changed through the years, but basically, to Knight it is a revolutionary overthrow of patriarchy and of hierarchy in general, which is now believed to have occurred perhaps 130,000 years ago. It may have been earlier, or it may have been later, but from about that (very approximate) date we have modern humans and modern, symbolic culture, with at least primitive language. Language is important here, since it marks the ability of humans to formulate religious ideas. In Knight's view, the earliest symbolism preceded language, and language followed from symbolic thought. The first symbolic revolution, according to Knight, was one of deliberate menstrual synchrony and the control of male authority by this female act. Clearly, Knight's vision comes from social anthropology, but it has implications for other anthropological sciences too.

Archaeologist Clive Gamble's book *Settling the Earth* (2013) deals in part with the ubiquitousness of three-stage theory. It is also a book that combines a biological interest in brain expansion with a sociohistorical interest in population increase and dispersal. In an earlier book, *Origins and Revolutions*, Gamble (2007) argues that neither the symbolic revolution nor the Neolithic revolution really occurred. Instead, he sees human cultural evolution, or rather material cultural evolution, in terms of a gradual shift from an emphasis on implements (e.g., stone axes) to an emphasis on containers. According to Gamble, such items of material culture have been important symbolically and apparently also in terms of identity, that is, through the ability to carry more things. Gamble has already crossed the boundaries that conventionally separate different branches of anthropology. Yet he has done so by venturing into areas where few have the expertise to pull such ideas together. Particularly in a yet earlier book, *Timewalkers* (1993), he explores these by asking questions such as "How many species?" (53), "Why Africa?" (74), "Where and how does speciation take place?" (74), "Can you force hominids to change their ways?" (89), "What is hunting?" (117), and "What happened to the Neanderthals?" (144). The style may be rhetorical, but these questions hint at difficult but real issues that anthropologists rarely seem keen either to examine or to debate.

So we have revolutionaries, such as Knight, and we have gradualists, such as McBrearty, Brooks, and Gamble. My own model lies roughly, if I can put it this way, in between. I do believe in revolutions but would emphasize their plurality. I accept the idea of a punctuated equilibrium, with a degree of gradualism too. Nineteenth-century polymath John Ferguson McLennan explained it this way; his main concern here is with whether individuals or groups make up societies:

> All the evidence we have goes to show that men were from the beginning gregarious. The geological record distinctly exhibits them in groups—naked hunters or feeders upon shell fish leading a precarious life of squalid misery. This testimony is confirmed by all history. We hear nothing in the most ancient times of individuals except as being members of groups. The history of property is the history of the development of proprietary rights *inside* groups, which were at first the only owners, and of all other personal rights—even including the right in offspring—it may be said that their history is that of the gradual assertion of the claims of individuals against the traditional rights of groups. (McLennan 1970 [1865]:162)

In other words, the first property owners were not individuals, but groups. Ownership progressed through "history," or what would soon (following Lubbock 1865) be known as "prehistory." We have an ever-increasing assertion of rights by the individual against the group. There does remain, though, the question of rights not merely in material things or in people but also in knowledge. I-language aside (language for thought, as opposed to for communication), language could only ever be the property of a group. After knowledge of how to make artifacts comes a means to transmit this knowledge, in other words, language for communication. A recognition of "ownership" is also implied here, and both ownership and the socialist and individualist tendencies that define it result from increasing group size, changes in the ability to communicate over distance, global migrations, and the expansion (and collapse) of kinship structures.

In short, most everything is implicated, and material, social, and kin relations are interrelated. This is the premise I started with when I began to think about the origins of language, and what led eventually to the conclusion that several leaps were necessary in the evolution of language.

The Coevolution of Kinship and Language

Social and cultural evolution rest in the development of kinship, and possibly its future does as well (see Lévi-Strauss 1966). My own theory of the coevolution of kinship and language was presented in two earlier papers (Barnard 2008, 2009). Let me outline the theory very briefly, but without all the arguments for it or all the biological or linguistic technicalities. The biological and social basis of humanity lies in *Homo sapiens* hunter-gatherer society as this existed at the dawn of language and of symbolic thought. It is, of course, from the earliest symbolic representations that human society in general evolved, and understanding this evolution is crucial to knowing the nature of humanity.

It is known that with increasing neocortex size came changes in cognitive abilities and an increase in the optimal, and actual, size of social groups (Aiello and Dunbar 1993). The size of neocortex, and in fact of the brain as a whole, correlates quite exactly with observed group size for all primates, though certainly with caveats for *Homo sapiens*. *Homo sapiens*'s "natural" group size is, or should be, about 150—known sometimes as "Dunbar's number." We would assume that fossil hominins fitted these patterns, although the presence of language, of course, enables humans to form larger units than might otherwise have been the case. According to Robin Dunbar's (2003) calculations, we would expect australopithecines to have lived in groups of 65 or 70, *Homo habilis* in groups of 75 or 80, *Homo erectus* perhaps 110, *Homo heidelbergensis* or so-called archaic *H. sapiens* 120 or 130, with modern *H. sapiens* about 150. Of course, other physical factors also play a part: ecological relations, for example.

My notion of three kinship revolutions is based essentially on linguist Derek Bickerton's (Calvin and Bickerton 2000:129, 136–137) notion of three stages of language: protolanguage, rudimentary language, and full language (see fig. 1). These map neatly onto three stages in the evolution of social and especially kinship structures. Protokinship involved the sharing of food, sharing of ideas, and sharing of techniques of toolmaking within groups. Rudimentary kinship involved exchanges, possibly of people as well as things, between groups. And full kinship involved the evolution of more precise rules for sharing and exchange.

In earlier books and papers, Bickerton (e.g., 1990:177–181) had argued against a gradual development of language and instead for a catastrophic birth of language. This coincided with the "cognitive explosion" that I refer to as the "symbolic revolution." Yet his later model (with neuroscientist William Calvin) suggests the three phases described here. Protolanguage contains words and phrases but as yet no sentences. The later simple sentences and the rudimentary-language phase that characterizes their formation are products of protolanguage plus a specific knowledge of such things as who is grooming whom or who is in dispute with whom. Full language entails complex syntax, including, for example,

grammatical agreement between subject and verb. It is probable that in the first instance some form of linguistic communication was signed rather than spoken (Arbib 2012; Corballis 2002) and that from this language as we know it eventually emerged.

What I have called the "signifying revolution" marks a stage at which hominins are capable of using words and therefore classifying things. I see this as a phase very loosely reminiscent of Lewis Henry Morgan's (1871:448–466) notion of the earliest human society and the developments toward what is today called the "Hawaiian" classification. For Morgan, the earliest societies were characterized by promiscuous sexual intercourse, with later refinements including the cohabitation of brothers and sisters, the sharing of spouses in common, and ultimately the "Hawaiian" form of classification. I have suggested that this revolution occurred at an early time of the genus *Homo*. At first, there may have been an incest taboo, or there may not have been one. We do not know for certain when the incest taboo emerged. Relationship terms to distinguish legitimate from illegitimate mates or terms to indicate generation or collateral distance may have been yet to evolve. Yet the recognition of various relationships should logically follow from the earliest use of protolanguage. The ability to classify is one step away from the ability to name; it would thus accompany the early use of common nouns. This could indeed mark a very early use of language, and the development of relationship terminologies and therefore of an incest taboo may be implicated.

If the first phase of language and kinship is perhaps at least vaguely reminiscent of Morgan's era of primitive promiscuity, the second phase, following what I have called the "syntactic revolution," for me resembles McLennan's (1970 [1865]) theory of the dawn of exogamy. McLennan believed that a shortage of food led to female infanticide, which in turn led to a shortage of women and then to polyandry as the norm. Each woman would be married to more than one man, and therefore the genitor of any child would be difficult to determine. Descent was matrilineal, but this changed when men adopted the practice of bride capture. They began to steal wives from other tribes and thus gained control of their own wives and families. The battles that ensued led, in turn, to a desire for peace. Peace came as an exchange of women that replaced the practice of bride capture, and this led in turn to patrilineality and patriarchy. At least, this is how McLennan saw it. The details of an actual transition here are lost in time, although there does remain an implicit concern with property and with groups.

Nevertheless, the signifying revolution brought the recognition of categories such as mother (and possibly father), brother, sister, son, daughter, and mate. The syntactic revolution brought much more. With rudimentary syntax comes the ability to formulate complex kin descriptions and therefore perhaps the recognition of mothers' brothers and mothers' sisters. If Dunbar (2003) is right that *H. heidelbergensis* group size had increased to 120, we could certainly imagine

Early *Homo*   **Early *Homo sapiens***   ***Homo sapiens sapiens***

SIGNIFYING   **SYNTACTIC**   **SYMBOLIC**   **NEOLITHIC**
REVOLUTION   **REVOLUTION**   **REVOLUTION**   **REVOLUTION**

| proto-language | → | rudimentary language | → | true language | |
| proto-kinship | → | rudimentary kinship | → | true kinship (elementary structures) | → | true kinship (complex structures) |

Words, symbolic   *Sentences; us/them*   *Full syntax; fully-*   *Increasing division of*
communication;   *kinship; incest*   *developed kinship*   *labour; breakdown of*
inclusive kinship;   *avoidance; exogamy;*   *systems; universal kin*   *elementary structures*
main links within   *increasingly, links*   *categorization; explicit*   *of kinship*
small groups;   *between larger*   *rules of sharing,*
sharing   *groups; barter and*   *exchange and kin*
                            exchange   *behavior*

Morganian model   **McLennanist model**   **Lévi-Straussian model**
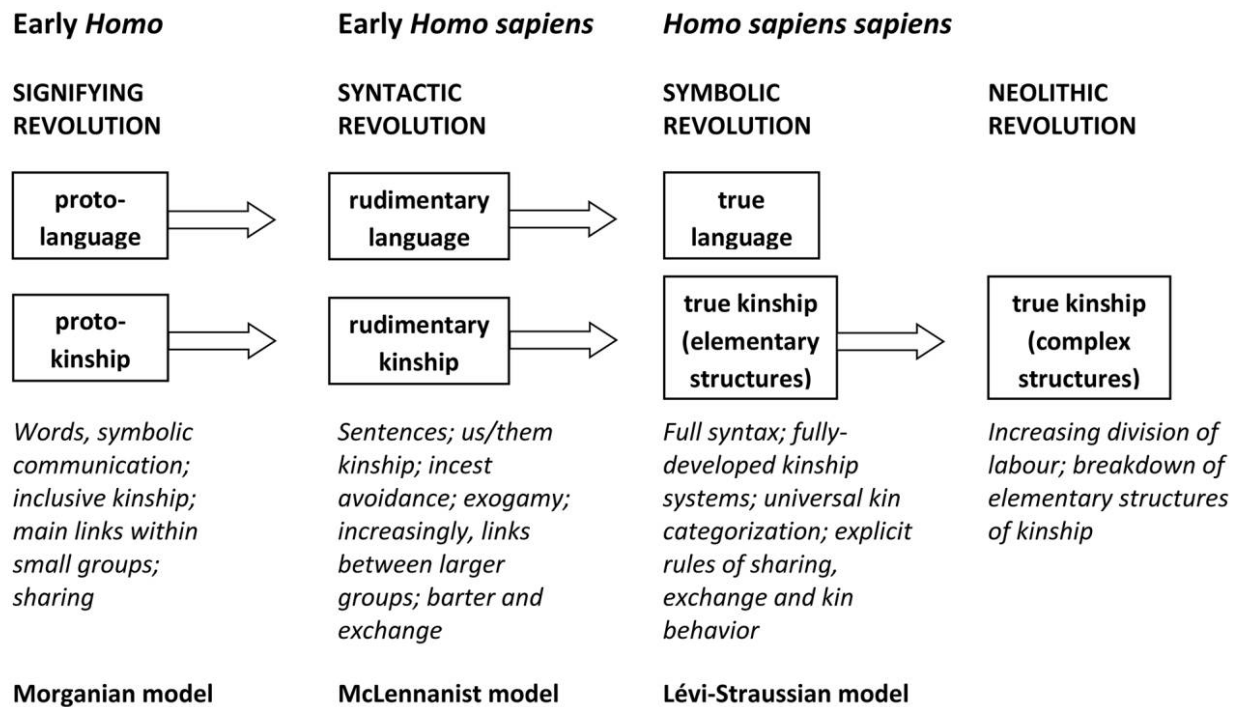
Figure 1. The coevolution of language and kinship; adapted from Barnard (2011:133).

smaller bands interacting with other bands in the same group and with other groups. The increase in neocortex size suggests a level of intentionality and the transmission of knowledge about resources, populations, and kinship. Dunbar has suggested that the earliest "archaic" *H. sapiens* or *H. heidelbergensis*, along with Neanderthals, probably filled a "bonding gap." They did this through the development of sophisticated communication through chorusing, and possibly dance, before the development of full language. At this stage, we would anticipate, too, the strong possibility of rules governing mating exogamy, although not yet its full fruition as part of a typical hunter-gatherer social structure. A social structure in which everyone is classified as some kind of "kin" is the norm for hunter-gatherers. Yet this development would have to wait until the complete development of symbolic thought and what I have (again, loosely) referred to as a "full" kinship system.

The symbolic revolution was, in a sense, Lévi-Straussian: true kinship coincides with the emergence of elementary structures (Lévi-Strauss 1969 [1949]) and universal kin classification (Barnard 1978). Virtually all hunter-gatherer societies today also have universal kinship systems. Any strangers who might have cause to engage in marital alliance, or possibly even the trade of material goods, would be fitted into kin relations. Since society itself is definable entirely on a kinship basis, everyone must belong to a kin category in relation to anyone else: this is what universal kinship is. What makes a language a full language is its use of complex syntax and

agreement between subject and verb. What makes a kinship system a full kinship system is essentially that it recognizes a distinction between a possible and a prohibited mate. It will also, on both sides of the family, classify relatives according to rules of agreement. If I call someone "son," he calls me "father," and so on (see Tax 1955 [1937]:29). Just as no one speaks half a language, so too no one can live in a society in which there is only half a kinship system or in which people play by different rules. Kinship systems, like languages, evolve and must reach a point where they become fully formed. Of course, people have through kinship virtually always been able to manipulate categories, but that is not the point. The crucial thing is that kinship evolved, and it evolved in a sequence at least approximately according to a scenario like this.

Beyond what I have defined as a third phase, we have, in a sense, a fourth. This is the phase of modernity, when both elementary structures and universal kinship break down and hunter-gatherer society gives way to the Neolithic.

The Naro Kinship Terminology

Let me now take the formation of the Naro kinship system as my key example of social change in action. Of course, this does not represent evolution on the scale of that of hominins in general, but it does show an example of the ways in which different subdisciplines in anthropology can shed light on the

same problem. If the evolutionary example outlined above represents the origin of language in the abstract in the distant past, this next one on rapid social change represents the origin of a language in recent history.

The Naro are a traditionally hunting-and-gathering people of western Botswana and eastern Namibia. They are also known as Nharo or Naron, and they number about 14,000. I did field research with the Naro beginning in 1974, and this section of the article is based on my early work as well as on the recent discovery of a language shift and its implications for reinterpreting Naro kinship and social structure.

The land of the Naro is adjacent to that of the more famous Ju/'hoansi (!Kung), who live to the north. The Naro and Ju/'hoan languages are unrelated, and the kinship terminology structures are very, very different: Naro makes parallel/cross distinctions, and Ju/'hoan makes lineal/collateral distinctions. However, the two terminologies share a rare feature: a naming system in which namesakes are considered "grand-relatives." This enables universal kin categorization through rules of namesake equivalence. For example, my sister's namesake is classified as my "sister," and the incest taboo is extended through such equivalences. The two languages also seem to share a word for "grandrelative" but little other vocabulary and no grammatical features worth mentioning here. The cultural similarities otherwise are also few, though significant: the existence of *xaro* (*hxaro*), for example, and of the custom of what are arguably bridewealth and childbirth prestations, known as *kamane* in Naro or *kamasi* in Ju/'hoan—though not in all dialects. The last syllable each case, *-ne* or *-si*, is simply a plural suffix. Neither or these two words occurs generally among San or Bushman groups, and indeed *kamasi* may be a loan word, and the customs surrounding this institution may have been introduced from the outside. *Xaro* is the formalized gift-giving exchange system described by Polly Wiessner (e.g., 1982). It overlies a network of rights to use resources on the land of other *xaro* partners. In Naro it is known by the verbal form, which is //'ãe.

In the past, I regarded Naro kinship as essentially a simplified Khoe or Khoe-Kwadi (their language family) kinship system with some Ju/'hoan or Kx'a (*their* language family) features. Khoe-Kwadi and Kx'a are separate Khoisan language families, not genetically related but part of a *Sprachbund*: a language area that came into being by convergence rather than divergence. Khoe-Kwadi has only relatively recently become regarded as a distinct language family, and the notion of a single Khoisan family of some 300,000 speakers and about 30 living languages has long since been discredited (see Vossen 2013). Yet, as I have hinted above, the Naro very likely once spoke a Kx'a language and shifted from it to what eventually became Naro (Pickrell et al. 2012). The findings here are based on both linguistic and genetic evidence. The former include, for example, the presence of pharyngialized vowels and compound verbs in Naro, though not in other Khoe languages (see Güldemann 2008:122–123). The prospect of accounting for such a transition at first frightened me,

but as we shall see, the explanation is not as difficult as at first it may seem.

I once published an essay on the "conjectural history" of Khoisan kinship and presumed it to be definitive (Barnard 1988). However, it is worth thinking again about the transition the Naro must have made to such a different kinship structure. This is not to reject anything I have written in the past but rather to give it a different twist. We need to think through that transition in light of the now fairly clear language shift. Further technical detail has been published in a recent article about this language shift (Barnard 2014), but here let us consider simply the meaning of it for the people who lived through the period. This shift, of course, has evolutionary implications. The interesting thing is that these implications are relevant to and borrow from the several fields of anthropology. The exact time depth of contact and transition is not easy to ascertain, but let us assume that it was not long after the arrival of Khoekhoe in southern Africa, some 2,000 years ago. The present-day populations presumably have been living in their present locations for about or near that length of time. Contrary to popular myth, hunter-gatherer groups, at least in southern Africa, are fairly stable in location.

Let us assume further that the present naming system of the Ju/'hoansi was then in existence more or less as it exists now. Given the present-day linguistic obscurity of the meaning of the names themselves, or at least most of them, this is quite likely. And it is plain that the Naro kinship system today is very much a cross between the two systems: it has elements of both. Basically, Naro has Ju/'hoan naming rules but a simplified Khoe kinship structure. The latter works because of the equivalence of alternate generations. Finally, let us assume the stability of the kinship systems before the language shift. This is also very likely in view of the known stability of all the Khoisan systems, including both the terms themselves and the structures. The structures of the known kinship systems are all as expected: there are Ju/'hoan-like (lineal/collateral) distinctions in the case of all Kx'a groups and Naro-like (parallel/cross) distinctions in the case of all Khoe-speaking groups. This is in spite of more than 1,000 years of language separation for the Khoe speakers. We know this because of sound shifts in words, especially for herding culture, among them "cow," "sheep," and "milk."

All these systems make a distinction between "joking" relatives and "avoidance" relatives, and this is absolute: for example, same-sex siblings and terminological equivalents are joking, and opposite-sex siblings and terminological equivalents are avoidance. The distinction is mainly for regulating the incest taboo and for quasi-incest regulation, such as determining how close one may sit next to someone of the opposite sex. There is no in-between status; one is either my joking relative or my avoidance relative: everyone is either one or the other, although the intensity of actual joking or avoidance behavior does depend on a number of factors: age, actual relationship (mother-in-law/son-in-law is the strongest avoidance relationship), and so on.

Both the Ju/'hoansi and the Naro practice universal kin classification (Barnard 1978). This means that anyone in such a society will classify everyone they meet according to kin category. The category non-kin literally does not exist, and therefore it is important for people to know how to classify everyone in the entire society. This works through personal names, and even anthropologists are given such names in order to fit them into the system, whether it be Ju/'hoan or Naro. My Naro name happens to be !A/e, and anyone else who possesses this name is my "grandrelative." The name !A/e occurs in both Ju/'hoan and Naro. The term for grandrelative designates grandrelatives among both Ju/'hoan and Naro, although the word is different. It is *!u n!ā'a* (masculine) or *txũ ma* (feminine) in Ju/'hoan (see Marshall 1957, 1976:201–251). Unusually, the equivalent word in Naro is not a Khoe word. It is *tsxõo* or *mama*, which, with additional number-gender suffixes, also means cross-cousin and cross-uncle or cross-aunt. The two terms are in essence synonymous, though grammatically different (*tsxõo* takes both a prefix, such as "my," "your," or "her," and a number-gender suffix, but *mama* does not take a prefix).

The full set of terms in Naro, without prefixes or suffixes, is as follows:

mama, *tsxõo*	Grandparent, cross-uncle, cross-aunt, cross-cousin, cross-nephew, cross-niece, grandchild, namesake, spouse's namesake, spouse's joking relative
tsxõo-/oa	Cross-nephew, cross-niece, grandchild
//õo	Parent, parent's same-sex sibling, adult child
ao	My father (no prefix)
ai	My mother (no prefix)
sao	Someone else's parent
ki	Elder sibling (real or classificatory)
!õe	Younger sibling (real or classificatory)
khoe	Spouse, spouse's same-sex sibling (who is also *mama* and *tsxõo*)
kx'ao	Husband, sister's husband (woman speaking) (who is also *mama* and *tsxõo*)
g//ae	Wife, brother's wife (man speaking) (who is also *mama* and *tsxõo*)
/'ui	Sibling-in-law, spouse's avoidance relative

As it happens, the Naro structure is ideally suited to the naming system, since grandrelative terms are the same as cross-uncle/cross-aunt terms. This means that it will not matter whether one is named for a second-ascending-generation relative or a first-ascending-generation relative: the terms are the same.

The Ju/'hoan Kinship Terminology

However, among the Ju/'hoansi it does matter. Names in both societies ideally pass from grandparent to grandchild, and names are gender specific. In Naro the terms for grandparent and cross-uncle or cross-aunt are identical, but in Ju/'hoan the terms for uncle and aunt are *tsu* and *g//a*, re-

spectively. Among the Ju/'hoansi when one runs out of names for grandparents, one has to name a child after an uncle or an aunt. Therefore, since the names are what are truly important, the structure of the kinship terminology changes when that happens. Ju/'hoan grandparents become uncles and aunts, and uncles and aunts become grandparents. It is this that caused the Marshall family such confusion when they began their research on Ju/'hoan kinship. The Ju/'hoansi, in other words, have two different terminology structures: one for when a child takes his or her grandparent's name, and another for when he or she bears the name of an uncle or aunt.

The basic structure, when ego bears the name of a grandparent, looks like this:

!u n!ā'a	Grandfather, cousin (M), grandson, namesake, grandfather's namesake, spouse's joking relative
txũ ma	Grandmother, cousin (F), granddaughter, namesake, grandmother's namesake, spouse's joking relative
tsu	Uncle
g//a	Aunt
mba	Father
tae	Mother
!ui	Elder sibling
tsi	Younger sibling
!ha	Son
≠xae	Daughter

Also important is the so-called *wi* relationship. In this, when classifications might otherwise conflict, it is the older person who classifies the younger.

The alternative structure occurs if ego bears the name of an uncle or an aunt: the uncles and aunts on the side of the family where his or her name comes from are called by the grandrelative terms, and not uncle or aunt. Thus, the first ascending generation on that side are the "grandparents," the "cousins," and the "grandchildren" (these are equivalent statuses), while the second ascending generation are the "uncles" and "aunts" and the "nephews" and "nieces." Terminologically then, the generations are reversed, though only on that side of the family. My father's brother or my father's sister is my "grandparent" if I am named after him or her, and my grandparents are my "uncles" and "aunts." In my own generation, I have terminological "uncles" and "aunts" rather than cousins. The other side of my family remains unchanged for me—although not necessarily for my siblings: they might bear the names of our parents' siblings and be classified accordingly. As one might imagine, this caused the Marshalls some confusion, as indeed it may do for Ju/'hoan children too.

The Transition

What can we say about the transition? For a start, it appears to have been one-way: the ancestors of the Naro originally, or at least very long ago, spoke a Kx'a language and subsequently acquired the Khoe language we now know as Naro.

Such a shift is rare in the ethnographic record. So what caused it in this case? My answer is simple but straightforward.

1. We must stop thinking about "the Naro" as a population resembling that of the 14,000 or so Naro alive today. The population was undoubtedly very much smaller, as indeed was the rather larger Ju/'hoan population.
2. We must not assume that just one language was present. In reality, there may have been many languages spoken in a linguistically complex community that solidified as "the Naro" and "the Ju/'hoansi" only in more recent times. Even here, there is evidence of much earlier borrowing from a Kx'a source to Khoe, as well as the later shift from Kx'a in the Naro branch of the Kxoe subfamily (Güldemann, forthcoming).
3. We know that language determines kinship structure, not the other way around. While doing fieldwork in 2011, in fact, I met a N!aqriaxe individual who could speak languages in five different language families. Although this skill is unusual, it does hint at the possibilities long ago, especially, though not uniquely, among hunter-gatherers living in relatively small communities. N!aqriaxe, the only Kx'a language spoken in southern Botswana, is a linguistic isolate. It has fewer than 50 speakers in total, all of whom are over 60 years of age. It is surrounded by speakers of G/ui and G//ana (Khoe-Kwadi family), Taa (Tuu family), Tswana (Bantu family), and, as a second language, Afrikaans (Indo-European family). Naturally, his children, brought up speaking other languages, have acquired and operate in other kinship systems: those of the adjacent languages.
4. Of course, with so many languages around, as undoubtedly there must have been, it is unlikely that spouses always both spoke the same language, at least as native speakers. Moreover, it stands to reason that it is extremely unlikely that having just one language was the norm. Much more likely is that everyone spoke several languages. This is the norm among hunter-gatherers worldwide, both today and in the recent past. For example, the N!aqriaxe man mentioned above probably speaks some eight languages—although I do not know that for certain.
5. This being the case, it is possible that elements of more than one kinship system were present at the same time or that individuals operated within whichever system was governed by the language they were speaking. This happens in Australia, for example (see, e.g., Maddock 1972). When children acquire a new language, they take the kinship system that goes with it.
6. However, it is in the nature of kinship systems that they are "regular." No one speaks half a language or has half a kinship system. Often, if not always, pidgins quickly become creoles (see McWhorter 2005), and in kinship what Sol Tax (1955 [1937]:29) once called the "rule of uniform reciprocals" dictates in one generation what happens in

the next. If I call someone "son," he will call me "father." If I call someone "sister's son," he will call me "mother's brother," and so on. This may not always occur so neatly, but normally it will be expected.

7. Putting all this together, we can assume that the very small population was multilingual and that for some reason part of the population diverged. The latter part of the population acquired the Khoe language that came to be Naro, and it allowed this language to become dominant. What became the Naro language brought with it the Khoe kinship structure but retained the Ju/'hoan naming customs as well as some cultural features, specifically the customs of //'ãe and *kamane*. This small group subsequently abandoned the Ju/'hoan kinship system almost entirely, and the system became Khoe.

Only one element of a Khoe system still exists: the terms for grandparent and aunts and uncles are not Khoe but are presumably derived from a Ju/'hoan, or at least a Kx'a, source. These non-Khoe terms replace the Khoe word *n//uri* or *n//odi*, in some languages today spelled *//nuri* (with appropriate number-gender suffixes), which is otherwise found universally among Khoe-speaking peoples. Of all the Khoe-speaking peoples, only the Naro and their linguistic relatives the Ts'aokhoe are missing this term. This includes the Khoekhoe herding groups as well as the traditional hunter-gatherers and the "River Bushmen" too: they all have it.

The differences between Naro and Ju/'hoan kinship structures are significant. Yet when seen in long, evolutionary terms, they are not as problematic as it might seem. Other parts of the world are also linguistically diverse, particularly Australia and New Guinea. The island of New Guinea, for example, has some 1,100 languages. Many are spoken by very small populations: the mean number of speakers for a language in Papua New Guinea is 3,752. A community may number only 50 to a few hundred people, and a local group may occupy a territory of just a few square miles (Nettle 1999:70–74). Given migration, cultural diffusion, and intermarriage, people will certainly be aware of each other's languages, and multilingualism is highly likely. The situation is similar in Australia, where in 1770 (the time of first European settlement) more than 200 languages were spoken. The governor, Arthur Phillip, wrote to Sir Joseph Banks of his astonishment that the inhabitants of Botany Bay were using different words from people who lived only 40 miles away (Dixon 1980:9–10).

Only by recognizing the genetic basis of the discovery that "Naro" were once "Ju/'hoan"-like, the similarities in kinship classification across the languages and language families represented by these two groups, and the fact of the transition from a tiny set of multilingual groups to larger and more monolingual ones can we see the full picture. In other words, Naro kinship can easily be understood, but only through a broader framework than "the Naro kinship system" as we have it today.

Other Possibilities

In North America, the four-field department is the norm. In many other parts of the world, including the United Kingdom, where I am based, it is not. At the same time, in the United Kingdom both students and professional anthropologists blithely employ the term "anthropology" when they really mean "social anthropology," even in phrases like "anthropology differs in this regard from biological anthropology" (which I have heard more than once). Only the former is actually regarded as the real thing. In my course called Human Origins and the Genesis of Symbolic Thought, I have had many student essays with such a usage, even though the first essay question was, in fact, "What are the barriers in applying ideas from social anthropology to the study of human origins?" Plainly, some of the students had not gotten, by that point, the idea of the course—nor, perhaps, of the question itself (see also Barnard 2011, 2012).

Adam Kuper and Jonathan Marks (2011) commented a few years ago on the lack of coherence in the anthropological sciences. In the 1980s, departments in North America divided into biological and social (or cultural) wings, with hardly much interaction between them. In the spirit of journals such as *Current Anthropology* and *American Anthropologist*, the discipline must wake up to the fact that this larger discipline is changing rapidly. This is borne out in biological anthropology by publications such as Katherine MacKinnon's (2014) recent review of that subfield. She points out, for example, that "hobbits," Denisovans, and interbreeding with them and with Neanderthals, as well as 400,000-year-old DNA, new fossils, new stone tools, and so on, are all making this field quite exciting. But where is social anthropology in this? Indeed, how might social anthropologists in general explain the transition from Ju/'hoan-like kinship to Naro-like kinship?

Within social anthropology (or linguistic anthropology), Harold Conklin's (1969:54–56) study of Hanunóo pronominal usage is a classic case of this. In his analysis, Conklin replaces the "traditional" distinctions of person (first, second, and third), number (singular, dual, and plural), and inclusion (inclusive and exclusive) with three other pairs: minimal membership and nonminimal membership, inclusion of speaker and exclusion of speaker, and inclusion of hearer and exclusion of hearer. The result is an intrinsically satisfying matrix along these axes, rather than a rather messy "solution" with blank spaces where nonexistent pronouns "might" occur. Or imagine that if a kinship system has exactly 12 kinship terms, being able to account for 9 or 10 of them is not explaining the system. One needs the whole thing, because that is what a system is.

Perhaps that is the crucial distinction between our discipline and sociology: we seek answers that conform to local realities. We are more interested in explaining systems than in collecting data. This is not to suggest that there is necessarily anything wrong with the idea of a comparative sociology, but rather that anthropology does have its own, rather different tradition. Anthropology as a whole seeks an understanding that is at least attempting to capture a truth that our informants might broadly agree with. That is why we seek explanations both from the inside and from the outside. What the future holds will depend on how strong our anthropological tradition really is. For this, we as a discipline should assert our independence from other social sciences as well as our need for an anthropological foundation for our findings (see also Parkin and Ulijaszek 2007). By "this," of course, I mean foundations within a wider framework defined as anthropology in its broadest sense.

Acknowledgments

References Cited

Aiello, L. C., and R. I. M. Dunbar. 1993. Neocortex size, group size, and the evolution of language. *Current Anthropology* 34:184–193.

Arbib, M. A. 2012. *How the brain got language: the mirror system hypothesis.* New York: Oxford University Press.

Barnard, A. 1978. Universal systems of kin categorization. *African Studies* 37:69–81.

———. 1988. Kinship, language and production: a conjectural history of Khoisan social structure. *Africa* 58:29–50.

———. 2008. The co-evolution of language and kinship. In *Early human kinship: from sex to social reproduction.* N. J. Allen, H. Callan, R. I. M. Dunbar, and W. James, eds. Pp. 232–243. Oxford: Blackwell.

———. 2009. Social origins: sharing, exchange, kinship. In *The cradle of language.* R. Botha and C. Knight, eds. Pp. 219–235. Studies in the Evolution of Language, no. 12. Oxford: Oxford University Press.

———. 2011. *Social anthropology and human origins.* Cambridge: Cambridge University Press.

———. 2012. *Genesis of symbolic thought.* Cambridge: Cambridge University Press.

———. 2014. The Ju/'hoan-Naro contact area. In *Southern African Khoisan kinship systems.* A. Barnard and G. Boden, eds. Pp. 209–222. Research in Khoisan Studies, no. 30. Cologne: Köppe.

Bickerton, D. 1990. *Language and species.* Chicago: University of Chicago Press.

Calvin, W. H., and D. Bickerton. 2000. *Lingua ex machina: reconciling Darwin and Chomsky with the human brain.* Cambridge, MA: MIT Press.

Conklin, Harold C. 1969. Treatment of folk taxonomies. In *Cognitive anthropology.* Stephen A. Tyler, ed. Pp. 41–59. New York: Holt, Rinehart, & Winston.

Corballis, M. C. 2002. *From hand to mouth: the origins of language.* Princeton, NJ: Princeton University Press.

Dixon, R. M. W. 1980. *The languages of Australia.* Cambridge: Cambridge University Press.

Dunbar, R. I. M. 2003. The social brain: mind, language, and society in evolutionary perspective. *Annual Review of Anthropology* 32:163–181.

Ellis, G. F. R. 2011. Biology and mechanisms related to the dawn of language. In *Homo symbolicus: the dawn of language, imagination and spirituality.* C. S. Henshilwood and F. d'Errico, eds. Pp. 163–183. Amsterdam: John Benjamins.

Gamble, C. 1993. *Timewalkers: the prehistory of global colonization.* London: Sutton.

———. 2007. *Origins and revolutions: human identity in earliest prehistory.* Cambridge: Cambridge University Press.

———. 2013. *Settling the earth: the archaeology of deep human history.* Cambridge: Cambridge University Press.

Güldemann, T. 2008. A linguist's view: Khoe-Kwadi speakers as the earliest food-producers of southern Africa. *Southern African Humanities* 20:93–132.

———. Forthcoming. Changing profile when encroaching on hunter-gatherer territory: towards a history of the Khoe-Kwadi family in southern Africa. In *Hunter-gatherers and linguistic history: a global perspective*. T. Güldemann, P. McConvell, and R. Rhodes, eds. Cambridge: Cambridge University Press.

Knight, C. 1991. *Blood relations: menstruation and the origins of culture*. New Haven, CT: Yale University Press.

———. 2010. The origins of symbolic culture. In *Homo novus—a human without illusions*. U. J. Frey, C. Störmer, and Kai Willführ, eds. Pp. 193–211. Berlin: Springer.

Knight, C., C. Power, and I. Watts. 1995. The symbolic revolution: a Darwinian account. *Cambridge Archaeological Journal* 5:75–114.

Kuper, A., and J. Marks. 2011. Anthropologists unite! *Nature* 470:166–168.

Lévi-Strauss, C. 1966. The future of kinship studies. *Proceedings of the Royal Anthropological Institute* 1965:13–22.

———. 1969 (1949). *The elementary structures of kinship*. Rev. edition. J. H. Bell, J. R. von Sturmer, and R. Needham, trans. Boston: Beacon.

Lubbock, J. 1865. *Pre-historic times, as illustrated by ancient remains, and the manners and customs of modern savages*. London: Williams & Norgate.

MacKinnon, K. C. 2014. Contemporary biological anthropology in 2013: integrative, connected, and relevant. *American Anthropologist* 116:352–365.

Maddock, K. 1972. *The Australian Aborigines: a portrait of their society*. London: Allen Lane.

Marshall, L. 1957. The kin terminology system of the !Kung Bushmen. *Africa* 27:1–25.

———. 1976. *The !Kung of Nyae Nyae*. Cambridge, MA: Harvard University Press.

McBrearty, S., and A. S. Brooks. 2000. The revolution that wasn't: a new interpretation of the origin of modern human behavior. *Journal of Human Evolution* 39:453–463.

McLennan, J. F. 1970 (1865). *Primitive marriage: an inquiry into the origin of the form of capture in marriage ceremonies*. Chicago: University of Chicago Press.

McWhorter, J. H. 2005. *Defining Creole*. Oxford: Oxford University Press.

Morgan, L. H. 1871. *Systems of consanguinity and affinity of the human family*. Smithsonian Contributions to Knowledge, no. 17. Washington, DC: Smithsonian Institution.

Nettle, D. 1999. *Linguistic diversity*. Oxford: Oxford University Press.

Parkin, D., and S. Ulijaszek, eds. 2007. *Holistic anthropology: emergence and convergence*. New York: Berghahn.

Pickrell, J. K., N. Patterson, C. Barbieri, F. Berthold, L. Gerlach, T. Güldemann, B. Kure, et al. 2012. The genetic prehistory of southern Africa. *Nature Communications* 3:1143. doi:10.1038/ncomms2140.

Tax, S. 1955 (1937). Some problems of social organization. In *Social anthropology of North American tribes*. F. Eggan, ed. Pp. 3–32. Chicago: University of Chicago Press.

Vossen, R. 2013. Introduction. In *The Khoesan languages*. R. Vossen, ed. Pp. 1–12. Abingdon: Routledge.

Wiessner, P. 1982. Risk, reciprocity and social influence on !Kung San economics. In *Politics and history in band societies*. E. Leacock and R. Lee, eds. Pp. 61–84. Cambridge: Cambridge University Press.

Wilson, D. S. 2011. The human major transition is relation to symbolic behavior, including language, imagination, and spirituality. In *Homo symbolicus: the dawn of language, imagination and spirituality*. C. S. Henshilwood and F. d'Errico, eds. Pp. 133–139. Amsterdam: John Benjamins.