componential analysis, taxonomies and scripts, are employed to represent explicitly this cognitive organization of cultural phenomena. In its earlier period, cognitive anthropology exhibited relativist tendencies, but ultimately became thoroughly rationalist and universalist. This is clearly illustrated in Berlin's and others' descriptions of systems of ethnobiological classification. All ethnobiological classification systems are organized in the same way, a shallow taxonomy of no more than six mutually exclusive ranks. Further, Berlin claims that these classifications are determined by universal perceptual and cognitive faculties, with no mediation of cultural practices. Others have traced this putative universal basis of classification to a "hidden nature" universally apprehensible by all human cognizers, while some have challenged the strong universalist claims for the basis of ethnobiological classifications and argue that cultural practices do indeed have a role in their framing. Other areas in which cognitive anthropological research has been productive are in partonomies, the relations of parts to whole and the application of the artificial intelligence idea of scripts as a way to describe culture practices.

Further Reading

The history of cognitive anthropology up to the present is well reviewed in D'Andrade (1995). Tyler (1969) anthologizes key articles in its earlier relativist period. For more recent developments, see Casson's (1983) and Dougherty's (1985) collections of articles. Berlin (1992) is a thorough treatment of his work on ethnobiology, while Atran (1990), Gelman and Cooley (1991), and Wierzbicka (1992b) develop the theory of natural hidden essences and its implications.

6

Kinship

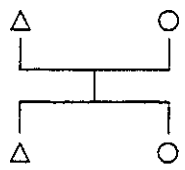
The Terms of Kinship Analysis

Of all topics within anthropological linguistics, kinship has probably attracted the keenest and most sustained interest. It is also a favorite semantic domain in which cognitive anthropologists like to demonstrate the usefulness of their approach. Like many other semantic domains, the analysis of kinship has been studied from two perspectives, universalist (Goodenough 1970; Lounsbury 1965, 1969; Murdock 1949) and relativist (Leach 1958, 1962; Needham 1971; Schneider 1980, 1984). On the face of it, kinship would seem to be a good domain in which to demonstrate universals, for mating and reproduction is a necessary feature of any viable society. Surprisingly, then, the kinship systems of the world's languages, the way Natives classify their kin, while falling into a number of types, are quite variable. The purpose of the work of cognitive anthropologists has been to argue that beneath this apparent variation is a system of universal categories to which any kinship system can be reduced. In keeping with the theme of this Part, I will confine myself mainly to analyses of kinship systems based on universalist assumptions, turning at the end to a brief consideration of relativist critiques.

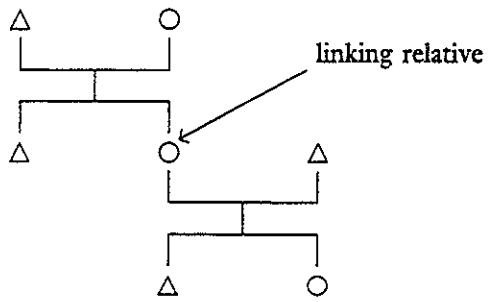
An approach to the analysis of kinship systems based on strong universalist assumptions is a venerable tradition in anthropology, clearly traceable at least to Malinowski (1929), if not Morgan (1871). Malinowski (1929, 1930) saw the genesis of kinship within the nuclear family, with its primary kinship relationships being the basis of all kinship, the wider kinship relations in the society being derived from these by a process of extension. This view was reiterated by Murdock (1949:92–3), who sees the nuclear family as a cultural universal:

> The point of departure for the analysis of kinship is the nuclear family. Universally, it is in this social group that the developing child . . . learns to

6.1



6.2



respond in particular ways towards his father, his mother, his brothers and sisters, and to expect certain kinds of behavior in return.

Thus, the units of analysis for kinship systems are to be terms based on the universal categories of the nuclear family: parents, spouses, children, and siblings (6.1) (△ indicates a male person and ○ a female; ⌊⌋ a marriage bond; | a descent parent–child relationship; and ⌜⌝ a sibling relationship). More complex kinship relations are based on these units through extension via a linking relative. Figure 6.2 indicates two nuclear family units knitted together into a larger kinship grouping through a female-linking relative, a daughter/sister within one nuclear family, but a mother/wife in the other.

Universals of Kinship

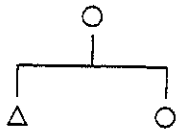
The kinship terms of the nuclear family can be said to be the universal salient foci of any kinship system as well as its fundamental building blocks. In a sense, then, they are somewhat parallel to the focal colors of color terminologies (see chapter 7) or the generic taxa in ethnobiological classification, but just how parallel? The universal principles underlying these other two systems can reasonably be claimed to lie in biological constraints – panhuman, universal, and innate perceptual and cognitive faculties underlie categorizations in these domains, recognizing natural discontinuities, but do this *independently of any cultural mediation*. Clearly, any presumed universals of kinship systems cannot lie in perceptual universals, for our kin are not

different in any obvious perceptual way from non-kin. Rather, any universals of structure must be due to biological constraints on the arrangements of human reproduction and our cognitive understandings of these constraints. While universals of ethnobiological classification and color terminology have reasonable claims to being innate, this is not likely to be true of universals of kinship systems; following Murdock's (1949) comments above, they are probably due to universal human experiences in the process of socialization. Is it reasonable to claim that kinship systems, at least in their fundamental outlines, are organized in terms of these biological constraints and independently of any cultural mediation? Sahlins (1977) claims that it is not, but Wierzbicka (1992a) claims that it is, at least in part. She wants to argue that mother and father are the most primitive units in all kinship systems and these are to be defined in their most basic senses in strictly biological and hence universal terms: mother as the person that bore one and father as the person who provided the needed wherewithal for the mother to bear one (genitor). If kinship systems were based on this formula, an exposition of them in universal terms would indeed be straightforward, but the anthropological literature provides many contraindications to it, especially with the concept of father, for while who bore me is readily apparent, who provided the wherewithal for this event is, as thousands of paternity blood tests demonstrate, not so.

Many ethnographic descriptions show that the genitor is not the primary designation of the term father in many languages. Consider the case of the Nayar of southern India (Gough 1959, 1961). In this society before a girl has her first menstruation she undergoes a ceremony which forms a permanent union with a young man. He leaves the girl after a few days, having had sexual relations or not, but all rights of sexual access cease on his departure. The girl is now free to enter into liaisons, even multiple ones, with other men and may bear children from these men, who could then acknowledge paternity by the bestowal of gifts. The children concerned, however, do not refer to their genitors by the term for father *appan*; that is reserved for the young man with whom she formed a permanent union in the premenstrual ceremony, someone with whom their mother may never have had sexual relations. The Nayar case clearly demonstrates the unviability of Wierzbicka's position on the centrality of universal, biological notions for the term father, and supports Sahlins' (1977) of the crucial mediation of culture in the construction of meaning in a kinship system.

Wierzbicka (1992a) is probably much closer to the mark in the case of mother. It is rarely, if ever, the case that the Native term for mother does not necessarily include the bearer of the child, for obvious biological reasons (for one interesting possibly problematic case, that of Mota in Vanuatu, see Rivers (1914)). Goodenough (1970) makes the important and, I think, valid point that it is really the relationship between the mother and child

6.3



that defines the nuclear family. This is really the fundamental unit for the genealogical reckoning of kinship. The father, then, is simply the marriage partner of the mother at the onset of her pregnancy who is responsible for the personhood of the child within the society, with the consequent duties toward it and the rights over it (anthropological notion of *pater*). The notion of personhood is important here, for it indicates why the Nayar father is not the genitor, but the young man in the premenstrual ceremony: it is he and only he, who by engaging in this ceremony, made her eligible to engage in sexual relations and ultimately bear new social persons, although his rights and duties with respect to these persons are negligible. David Wilkins (personal communication) provides further evidence for the father as the marriage partner who is the social person maker. Among the Arrernte of central Australia, if a woman who is married to a man of one kin group bears a child by a man of another kin group, the kin group classification of the husband will be used to reckon that of the child; he will be the father and determine what kind of person this child is, i.e. which kin group he belongs to.

The basic atom then of kinship systems is the bond between mother and child (6.3). This is clearly a biologically based universal, but may have particular cultural constructions, for example, in Mota (Rivers 1914), and certainly will be associated with culturally specific symbolic elaborations (Bean 1978, 1981; Lakoff 1987; Turner 1987). The link between mother and child is the basis of genealogy, a basic axis of structure in all systems of kinship. Father is not a concept grounded universally in biology; rather, it is culturally constructed: the man who the culture regards as responsible for the social personhood of the child. Malinowski's (1929, 1930) naturalist approach to kinship boils down in this perspective to a claim that genealogical levels defined in this way through the mother–child link, plus other naturally given biological categories, will be sufficient to generate all kinship systems. The person using any kinship term or the reference point for any reckoning of a kinship relation is called *ego*; any kinship system is always seen from the perspective of a particular ego.

An Analysis of Watam Consanguineal Kin Terms

The basic structure underlying a kinship system is typically approached through an analysis of the Native terminology used by someone to refer to

kin categories, as all kinship systems are built up by joining together different nuclear family atoms through linking relatives. Thus, the English word *mother* refers to just this, ego's mother, while ego's mother's sister is called *aunt*. In Watam, both of these categories would be covered by a single term *aem*. Clearly, if we are to arrive at an understanding of the structure of a kinship system through an analysis of the categories denoted by the Native terms, a metalanguage in which to cast these denotata is necessary. Typically, those of English for the nuclear family are used: father (F), mother (M), brother (B), sister (Z), wife (W), husband (H), son (S), and daughter (D). ♀ and ♂ indicate female and male egos and o and y, older and younger relative age. A large subset of the Watam kinship terminology, that of blood relations or consanguines, can be glossed using this system as follows:

bijir	FFFF (i.e. ego's father's father's father's father), MMMM, FFFFB, FFFFZ, MMMMM, FFFFF, MMMMZ, MMMMB, SSSS, SSSD, BSSSS, ZSSSS, BDSDD, ZSDSS, SSSSS, DDDDD, etc.
ŋgamar	FFF, MMM, FFFB, FFFZ, MMMB, MMMZ, SSS, SSD, BSSS, ZSSS, BDSD, ZSDS, etc.
nenkai	FF, FM, MF, MM, FFB, FMB, FMZ, FFZ, MFB, MMZ, MMB, MFZ, FFFBZ, MFFZD, MMMZS, MMMZD, etc.
aes	F, FB, FFBS, FMZS, etc.
aem	M, MZ, MMZD, MFZD, FFZD, etc.
akwae	MB, MFS, MMS, MMZS, etc.
namkwae	FZ, FMD, FFD, FFZD, FFBD, etc.
yakai	♀eZ, ♀FBeD, ♀FZeD, ♀MBeD, ♀MZeD, ♂eB, ♂FBeS, ♂FZeS, ♂MBeS, ♂MZeS, etc.
yap	♀yZ, ♀FByD, ♀FZyD, ♀MByD, ♀MZyD, ♂yB, ♂FByS, ♂FZyS, ♂MByS, ♂MZyS, etc.
ondaŋ	♀B, ♀FBS, ♀FZS, ♀MBS, ♀MZS, etc.
mbi	♂Z, ♂FBD, ♂FZD, ♂MBD, ♂MZD, etc.
itiŋ	S, BS, ♀ZS, FBSS, FZSS, etc.
namoŋ	D, BD, ♀ZD, FBSD, FZSD, etc.
amuk	♂ZS, ♂ZD, ♂MZDD, ♂MZDS, etc.
rumbun	SS, SD, DS, DD, BSS, BSD, ZSS, ZSD, etc.

The "etc." at the end of the lists of referents for each term indicate that these terms in principle apply to an infinite list of kin relationships. This is not very helpful in elucidating the cognitive principles underlying the kinship system, nor, indeed, is such a simple listing of referents. Anyone familiar with the literature of kinship can work out from this listing the basic structure of the system, but, of course, an explicit logical analysis laying all this out is our ultimate goal, and one, given our universalistic focus in this chapter, employing universal biological categories.

The first of these, already mentioned, is genealogical, defined as the mother–child link. The Watam kinship terminological system ranges over no less than nine genealogical levels. Taking ego's generation as zero, we can recognize the outermost genealogical level in the Watam system represented by *bijir* as four levels removed from it in either ascending generations (ego's MMMM) or descending (ego's DDDD). Thus, there are four mother–child links separating ego from any kin relation denoted by *bijir* (6.4). There are no other semantic dimensions relevant to the meaning of *bijir* and so it can be simply defined as:

bijir Kin G^{4}

The next kin term *ŋgamar* is parallel: it covers three generational links in ascending or descending order from ego (MMM and DDD), with no further semantic contrasts:

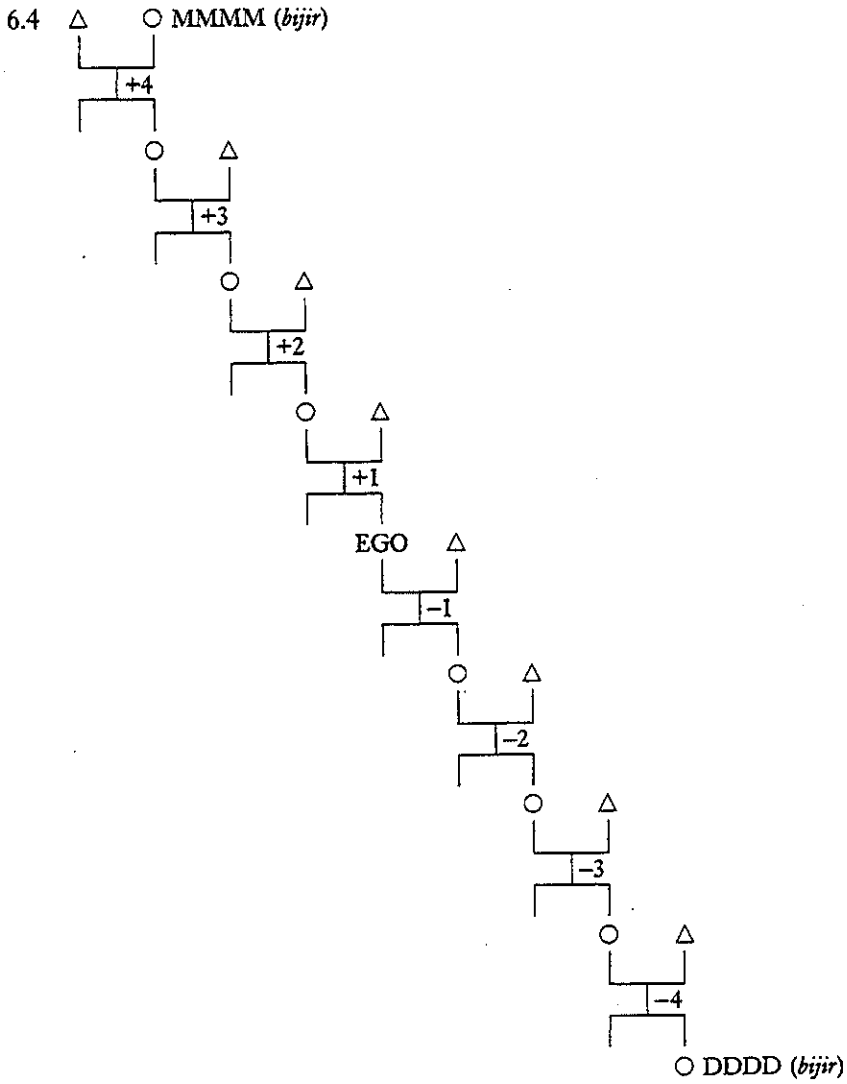
ŋgamar Kin G^{3}

With two genealogical levels removed from ego, the symmetry between ascending and descending generations disappears. We find distinct terms for the ascending and descending generations, but no further semantic differentiation:

nenkai Kin G^{+2}
rumbun Kin G^{-2}

As we come closer to ego's generation, the symmetry between ascending and descending generations disappears and more semantic features become relevant to an explicit description of the meaning of the terms. Let us consider the first ascending generation, which contrasts four terms: *aes*, *aem*, *akwae*, and *namkwae*. *aes* refers to "father," but it also covers all male (S^{M}) blood relatives of father's generation (G^{+1}) related to ego, *not* linked to him through his mother, the parent of opposite sex to these male relatives. The semantic feature referring to the linking relative as being the same or different sex to the kin category is known as parallel (same sex) or cross (different sex). This may be explicitly represented with a feature P(arallel), specified + or –.

6.4



aes Kin $G^{+1}P^{+}S^{M}$

aem is similar to *aes*. It denotes all female (S^{F}) consanguineal relations linked to ego through a parent of the same sex (parallel), i.e. his mother:

aem Kin $G^{+1}P^{+}S^{F}$

The other kin terms of the first ascending generation refer to the consanguineal cross kin categories (P^{-}). *akwae* refers to male relatives of the first

ascending generation linked to ego through the opposite-sex parent, mother, i.e. prototypically MB, while *namkwae* covers the other case, female relatives of G^{+1} linked to ego through the male parent, e.g. FZ. The former, as we shall see, is especially important in the system with a reciprocal G^{-1} term *amuk*. These two terms are defined then as:

akwae Kin G^{+1} P^- S^M
namkwae Kin G^{+1} P^- S^F

In ego's own generation (G^0), the Watam kinship system reveals itself as being basically of Hawaiian type, with no contrast between siblings and cousins. The basic dimensions of semantic contrast in G^0 are the intrinsic sex of the kin referred to, its sex relative to that of ego, and their relative ages. If ego and her sibling/cousin are of opposite sex, different terms, undifferentiated for age, are used than if they are of the same sex. Thus, a male speaker calls his sister/cousin *mbi*, while a female speaker calls her brother/cousin *ondaŋ*. We can extend the use of the parallel feature introduced above to cover this as well: same sex siblings/cousins being P^+, opposite P^-:

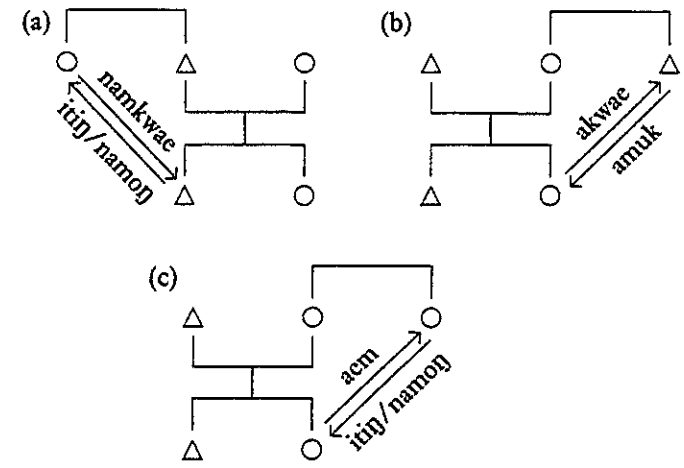
mbi Kin G^0 P^- S^F
ondaŋ Kin G^0 P^- S^M

If ego's sex and that of the sibling/cousin are the same, the kin terms are not differentiated for sex, but for relative age, one term *yakai* for those kin older than ego and another *yap* for those younger:

yakai Kin G^0 P^+ A^O
yap Kin G^0 P^+ S^Y

Finally, we come to the first descending generation, which has three terms: *itiŋ*, *namoŋ*, and *amuk*. The crucial fact here is that *amuk* is the reciprocal of *akwae*: whoever categorizes a particular kin relation as an *akwae* is in turn referred to by this kin as *amuk*. Members of the kin category *amuk* can be of either sex, but the labelling ego must always be male, i.e. an *akwae*, G^{+1} S^M P^-. What crucially defines *amuk* then is that the male ego is linked to the referent by an opposite-sex sibling, his sister. Thus, the relationship is a cross one (P^-), but this alone is insufficient because it would also include the relationship FZ and BS and BD. We also need to specify the sex of the linking relative, in this case, the mother, who is female. Note the differences shown in separate diagrams in 6.5. Clearly, two features are needed: P^- to distinguish the relations in (b) from (c) (MB versus MZ), and sex of linking relative as female to distinguish (b) from (a) (MB versus FZ). *amuk* can then be defined as:

6.5



amuk Kin G^{-1} P^- SLR^F

Note that the sex of the referent is *not* relevant to *amuk*, covering both ♂ZD and ♂ZS. In this it differs from *itiŋ* and *namoŋ* which do contrast according to inherent sex. The meaning of these terms can be represented as:

itiŋ Kin G^{-1} S^M
namoŋ Kin G^{-1} S^F

The delimitation of the respective semantic domains of these three terms can be established by invoking a rough analog of the linguistic elsewhere principle (Andrews 1990; Kiparsky 1973), that is, the most highly specified term is preferentially applied first. If that is inapplicable, then less specific terms are available. For kin relations of G^{-1}, *amuk* is the most highly specified term; if its semantic features are met, the kin relation falls under the category labelled by that term. If this is not the case, then either *itiŋ* or *namoŋ* is applicable, depending on the referent's sex.

Lounsbury's Reduction Rules and Universals of Kinship

This analysis of the semantic dimensions of consanguineal kin terms in Watam reveals kinship relations in this culture to be structured entirely in universal biologically given terms like generation, sex and age, in line with Malinowski's (1929, 1930) views. Pursuing this further, can the Watam data be used to support Murdock's (1949) even stronger constraint that the fundamental atom of kinship is the universal nuclear family, the mother and