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Kinship Matters: Structures of Alliance, Indigenous Foragers, and the Austronesian Diaspora

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Abstract

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Keywords

Kinship, Genetic Effects Of Marriage Patterns, Cultivator-Forager Interaction, Philippine Negritos, Austronesian Diaspora

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Indigenous Foragers and Austronesian Settlers

In Southeast Asia the foraging way of life dates back to the Pleistocene, and it is reasonable to assume that there has been some continuity within the associated traditions from the first arrival of anatomically modern humans (AMH) to the present day. That is true for the Malay Peninsula and the Philippines, as well as the Andaman Islands. In the first two regions, at least some of the ancestors of today’s “negrito” populations were part of that continuity. But today the dominant populations of Peninsular Malaysia and the Philippines speak Austronesian languages (as do the various negrito groups of the Philippines) and are cultural heirs of an initial Proto-Austronesian-speaking population on Taiwan and, perhaps, adjacent areas on

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the south coast of China, who lived a horticultural way of life. Proto-Austronesian (PAN) speakers grew rice, millet, and root crops, kept dogs, chickens, and pigs, wove cloth on simple backstrap looms, made pottery, and may have had knowledge of metallurgy (Blust 1976).

Austronesian speakers began their dispersal beyond Taiwan sometime around 4,000 BP, settling along the coast of northern Luzon. This was perhaps where the daughter language Proto-Malayo-Polynesian (PMP) was spoken. Blust (1984–1985) has reconstructed a number of vocabulary items in PMP with tropical referents, words that were not included in PAN. These include terms for *Colocasia* taro, breadfruit, banana, yam, sago, and coconut. Bellwood (1995: 106) points out that the inclusion of these tropical plants in the cultural inventory of PMP speakers may reflect a “shift away from rice, a plant initially adapted to subtropical latitudes, towards a greater dependence on tubers and fruits in equatorial latitudes.” It should be noted, however, that an argument has been made that the initial spread of PMP was based more on maritime foraging than it was on either grain cultivation or tropical agriculture (Bulbeck 2008).

Bellwood (1993: 52) suggests that Austronesian speakers may have been present on Sumatra by 2000 BC, within easy reach of the Malay Peninsula, but he concluded that, at the time of his writing, it was not possible to say definitively when Austronesian settlement began. In any case, those early Austronesian settlers were not the first cultivators on the Peninsula. Austro-Asiatic speakers had already migrated into the Peninsula around 4,000 BP, where they interacted with indigenous foraging peoples. These indigenous groups were descended from the earliest AMH migration into coastal Southeast Asia ~50,000 BP (Hill et al. 2006). The interaction between Austro-Asiatic speakers and these pre-Semang foragers was intense and prolonged enough for the latter to adopt the languages of the former. Malaya, then, was already an area of linguistic, cultural, and genetic exchanges when Malayo-Polynesian (MP) speakers first arrived.

Though the indigenous foragers of the Malay Peninsula and the Philippines exchanged products and genes with horticultural settlers and adopted their languages (Austroasiatic languages on the Malay Peninsula, PAN daughter languages in the Philippines), the foraging way of life was transformed, not abandoned. Transformation would have been both a response to new opportunities (starchy, cultivated foods that could be traded for or cultivated on a small scale) and new environmental limitations, as indigenous foragers lost exclusive use of some coastal and estuarine resource areas to horticultural settlers (Reid 2007: 10–11). The issue of whether the distinctive negrito physical characteristics developed once and spread with the eastward migration of AMH or evolved in situ multiple times lies beyond the scope of this article. The focus, instead, is on changes in systems of kinship and marriage associated with early contact between ancestral foragers and early horticultural settlers.

The study of kinship systems has direct relevance for the field of human genetics and the study of microevolution in human populations. Some types of postmarital residence rules—rules requiring a married couple to live with or near

relatives of the husband or wife—will have consequences for the distribution of mitochondrial DNA (mtDNA) and Y-chromosome lineages (see Bentley et al. 2009). Rules that proscribe or encourage marriage with close kin will also have consequences for allele frequency (Fix 1995). A preference for marrying at a distance, both socially and geographically, creates alliances that can have survival value for individuals and groups in an environment of periodic or unpredictable scarcity but will also have implications for the distribution of alleles in wider regional populations.

This article considers this interaction between kinship systems and human genetics. Specifically, it deals with changes in the kinship systems of peoples who have been in contact with the negrito populations of Southeast Asia for millennia—that is, speakers of Austronesian languages. All languages in the Austronesian language family are derived from an ancestral language, PAN, which has been partially reconstructed. Today all but one of the major divisions of Austronesian are spoken on the island of Taiwan.

All of the Austronesian languages spoken outside of Taiwan belong to the MP branch of Austronesian languages. This article considers the nature of the kinship systems that speakers of MP languages took with them as they spread, first to the Philippines and later to Sulawesi and beyond. It argues that those ancestral kinship systems differed in important ways from the systems currently found among the MP speakers of Philippines and Malaysia. The changes in kinship and marriage have some relevance for understanding the kinship systems of negrito populations in the Philippines since these peoples, too, speak Austronesian languages, and their kinship systems of today evolved in interaction with Austronesian horticulturalists.

In the next section I consider the underlying nature of kinship terminologies everywhere. The analogic reasoning they entail helps explain why they are a human universal and why they have been of central importance to the foraging way of life. This is followed by a discussion of a theory about the primordial kinship system and its transformations, as outlined in a series of publications by N. J. Allen (1989, 1998, 2004). I then argue that, at the time of their arrival in the Philippines, Austronesian speakers had Dravidian-type kinship systems based on bilateral cross-cousin marriage. Since neither the negrito peoples of the Philippines nor their neighbors have Dravidian systems today but, rather, have bilateral descent systems, lack prescriptive marriage rules, and have either lineal or generational kinship terminologies, a theory about why such changes occurred is required, and one is offered in a later section of the article.

Kinship Systems

All human societies have systems of relationships—kinship systems—derived from, or modeled on, linkages established by reproduction and parturition. Cultural understandings of the processes of reproduction and nurturance, and the nature of the shared substances or essences believed to link parent and child, vary, but all human societies have cultural understandings of the process of human reproduction,

and most attribute an active role in the child's formation to both genitor and genitrix (the child's biological parents). In most societies a child's legitimacy and full filiation to others through both parents depend upon acknowledgment of paternity or marriage between the child's sociological parents.

This network of relationships established by reproduction and marriage may be added to or extended through ritual ties, adoption, fosterage, nurturance and coresidence, membership in ancestor-focused groups, name sharing, and so on. But despite the variety of principles on which relationships can be based, in all societies cultural understandings of reproduction and legitimacy are fundamental.

All kinship systems include a set of statuses and associated roles or expectations about behavior. These include rights and duties such as obligations of generalized reciprocity, respect behavior, avoidance patterns, and joking behavior. The second component of all kinship systems is a set of terms labeling those statuses/roles. Thus, kinship as understood here is inextricably entwined with language.

But why should kinship systems be universal? After all, for most of our species' existence, communities have been small, and therefore coresidents would have known one another intimately. In such settings would personal names not be sufficient identification? Even when we consider the need for a wider network of communities to supply potential mates, the social universe would not be so large as to preclude the use of personal identifiers. The reason that kinship systems are universal would seem to be that they make personal relationships *generalizable*, providing an important medium for analogy. "Ione" might have been the woman who gave birth to me, but everyone had a "mother." I can see my relationships in yours, and vice versa. Moreover, genealogical relatedness (as augmented or modified by such things as coresidence and name sharing) can be extended as far as need requires and knowledge and creativity allow. Universal kinship (the recognition of a web of relationships that extends to the boundaries of the social universe) was one of our foraging ancestors' most important inventions.

But what form might a primordial kinship terminology have taken? More than 6,000 different languages are still spoken in the world, but in terms of the logic of categories, the ways in which the speakers of these languages classify relatives fall into a small number of types. Given that the logically possible ways of sorting and categorizing genealogical relationships are limited (e.g., on the basis of generation, sex of relative, or relative age), is there any way to know which of them structured primordial kinship?

In a series of publications, N. J. Allen (1989, 1998, 2004) has outlined a world-historical theory of kinship in which the earliest kinship systems displayed what he calls tetradic structure. In a tetradic system, the kinship universe is cross-cut by two binary oppositions—between two spouse-exchanging groups, on the one hand, and between two terminological genealogical levels on the other. In its simplest form, a tetradic system requires just four kin terms designating the following positions: my "group" but opposite genealogical level, my "group" and my genealogical level, opposite "group" but my genealogical level, and opposite "group" and opposite genealogical level. The four resulting statuses may be further

bisected by sex, resulting in eight kin statuses rather than four. These spouse-exchanging “groups” can take a variety of forms, including local groups, unilineal descent groups, or egocentric webs of sibblingship. Two groups that provide spouses for one another in one generation will exchange marriage partners again in the next.

As Allen points out, a tetradic system is produced by three types of kinship equations:

1. **Classificatory equations:** These equate same-sex siblings, both as relatives and as links to other kin, so that, for example, $FBCh = FCh = Sb$. (See Figure 1 for kinship abbreviations.)
2. **Prescriptive equations:** These equate one’s spouse with a particular category of kin or, to put it differently, prescribe marriage with a particular type of relative.
3. **Alternate generation equations:** These equate kin of alternate generations, so that, for example, $FF = SS = B$.

All three types of equations are common in kinship systems around the world; indeed, the majority incorporate at least one of them. Allen (1989, 1998, 2004) argues that a system lacking any of these equations is unlikely to develop all of them and transform into a tetradic system.

All the other major types of kinship systems can be derived from a tetradic system by the successive suspension of the three types of equations. For example, suspension of alternate generation equations transforms a tetradic structure into a Dravidian-type system, while nullification of classificatory equations (e.g., $FB=F$) results in a “descriptive” terminology (i.e., one that consistently distinguishes lineal and collateral relatives; Turner 2007). Moreover, Allen argues that these equations tend to disappear in a particular order, with alternate generation equations being the first to be dropped and classificatory equations being the last. Allen bases his claim for transformational directionality on the internal logic of kinship terminologies and on correlations that can be summed up as follows: “Where prescriptive equations are salient classificatory ones can be expected, but not vice versa; and alternate generation equations are probably commoner where prescriptive equations predominate than where they do not (see Aberle 1967)” (Allen 1989: 178).

When classificatory, prescriptive, and alternate generation equations are combined, they can result in a kinship system that can be extended to the boundaries of the social universe (Allen 1989: 178). Barnard (1978) called kinship systems that are isomorphic with the social system “universal kinship systems” and noted that there is a strong correlation between universal kinship and what Levi-Strauss (1969) termed “elementary structures” of kinship and marriage. An elementary structure is one in which there is some form of marriage rule requiring ego to marry a person classifiable as a particular type of relative. Barnard (2011: 139) suggests that the transition of some elementary kinship systems to complex systems (those lacking any form of prescriptive marriage rule) began with the Neolithic transition, though he offers no explanation why transformation began then.

I would argue that Allen's tetradic theory is relevant here because it suggests an interpretation of the distribution of many existing kinship systems. In Allen's theory, the first step in the transformation of an original tetradic system is a Dravidian-type system, which has classificatory equations and a bilateral cross-cousin marriage rule but lacks consistent alternating generation equivalence rules. If we look at that the distribution of Dravidian-type systems worldwide, we find that the distribution is both global and patchy (Trautmann 2000: 567). Trautmann (2000) points out that they are common in southern India, Sri Lanka, and Australia, have a scattered distribution in Indonesia and Oceania, and are abundant in the Americas but are not found in Europe or Africa.

As Trautmann (2000) notes, there are essentially three ways the distribution of Dravidian-type systems has been explained by anthropologists: through evolutionist, structuralist, and historicist theories. Allen's tetradic theory is evolutionary in nature, in that it posits a unidirectional transformation of kinship systems, with Dravidian-type systems being the first stage in the decay of tetradic systems. The discontinuous distribution of such systems from southern India through the Americas, then, could be interpreted as the residue of originally tetradic systems.

Structuralist theories interpret the same worldwide distribution differently. For the structuralist, all possible forms of marital exchange are present as possibilities before the human mind, which is everywhere fundamentally the same (see Levi-Strauss 1969). A structuralist approach could accommodate interpretations of particular systems in terms of ecological or social structural factors that may shape choices among the logical alternatives of matrilineal, patrilineal, or bilateral cross-cousin marriage or the absence of any form of prescriptive marriage rule. Those societies with Dravidian-type systems have simply made the same choice among the various alternatives.

Finally, a historicist explanation looks to actual connections and historical influences within contiguous regions, as Trautmann (1981) has done for South Asia. From the historicist perspective the distributional pattern may be indicative of historical connections, but the existence of such connections would need to be established.

Allen's "evolutionist" theory is incompatible with a structuralist approach, in that Allen posits a logical developmental sequence inherent in the tetradic system itself: "Structuralism [on the other hand] treats history as a restless flow of contingencies upon which the structure of the human mind strives to impress *its* shape" (Trautmann 2000: 568, emphasis mine). However, I will argue that aspects of Allen's tetradic theory could be fruitfully combined with a historicist approach. The spread of the Austronesian-speaking peoples was both rapid and comparatively recent, and the details of that history are being filled in by the work of archaeologists, linguists, geneticists, and ethnologists. The time depth of the Austronesian dispersal is sufficiently shallow and knowledge of Austronesian languages sufficiently developed for the partial reconstruction of PAN and the kinship terminology of the early daughter language, PMP (Blust 1980a).

The Transformation of Malayo-Polynesian Kinship Systems

Proto-Malayo-Polynesian, the language from which all Austronesian languages spoken outside of the island of Taiwan are derived, probably first emerged somewhere in the small islands that lie between Taiwan and Luzon (the Batanes Islands) (Ross 2005). The first Austronesian settlers on Luzon would have spoken PMP or some very early daughter language derived from it. What form did the kinship system of these early PMP-speaking settlers take? There are two established views on the PMP kinship system. Following Blust (1980a), I refer to the first of these interpretations as the “bilateral hypothesis.”

Alfred Kroeber (1919) was the first anthropologist to propose a bilateral interpretation of what would now be called PMP or, perhaps, Proto-Philippines kinship. He surveyed what was then known about the kinship systems of eight different groups on Luzon, Mindanao, and Sulu plus Malay and suggested the outlines of a probable ancestral terminology from which they all were derived. The characteristics of this ancestral system included the merging of most collateral relatives with lineal kin; the treatment of affines as if they were consanguines, with the corollary that spouses were treated as a single person; the failure to distinguish on the basis of “sex of relative” except for parents and, perhaps, their siblings and siblings-in-law; and no distinction on the basis of lines of descent (i.e., absence of bifurcation). Generation was the most consistently emphasized principle of classification (Kroeber 1919: 81). There are no totemic systems, no clans or other unilineal groupings, “nor any system of exogamy between artificial kin groups,” and in marriage, the reckoning of descent, and property rights women are equal to men.

Kroeber (1919) saw the thoroughly bilateral emphasis of Philippine kinship systems as a reflection of the ancestral system. He emphasized the tenacity of the principles on which this ancestral system had been based. Despite the influences of Indian, Arab, and Spanish civilizations, the essential features of this presumed ancestral system were retained by Pagan, Christian, and Mohammedan groups and lowland and highland peoples alike.

Four decades later George Peter Murdock (1949: 230–231) refined and extended the bilateral hypothesis to MP societies more generally. He saw “ancestral Malayo-Polynesian” society as characterized by what he called Hawaiian-type social organization. Such systems have Hawaiian-type cousin terms (cousins are terminologically equated with siblings), bilocal extended families (in which a married couple can live with or near the parents of either spouse), and bilateral extension of the incest taboo. In Murdock’s Hawaiian-type social organization, there are no exogamous unilineal descent groups, and instead the kinship universe is organized in terms of personal kindreds or demes (Murdock 1949: 228). (When kindreds tend to overlap—so that, for example, my kin are also your kin—are localized, and tend to be endogamous, they are called “demes.”)

This “bilateral hypothesis” resonates with the fact that at the western and eastern extremes of the distribution of MP languages, a preponderance of societies *are* organized either bilaterally or cognatically, lack prescriptive marriage rules,

and have either Hawaiian or Eskimoan kinship terminologies. In the west these include the Austronesian speakers of the Malay Peninsula and the peoples of the large islands of Western Indonesia, the Philippines, and Madagascar—the areas where Western Malayo-Polynesian languages are spoken. The same is true of almost all societies of the vast Polynesian triangle far to the east. But in between lie the islands of Eastern Indonesia and the Austronesian-speaking peoples of Melanesia, many societies in which descent is neither bilateral nor cognatic. This discontinuity in the distribution of bilateral or cognatic societies is problematic for the “bilateral hypothesis.”

The fit between the bilateral hypothesis and certain of the distributional facts described above (i.e., the prevalence of bilateral systems at the two extremes of the distribution of MP languages) is, of course, not surprising. Just as Kroeber’s (1919) hypothesis about the bilaterality of early MP society had been based on the comparative study of societies in a single region, the Philippines, so did Murdock (1949: 229–231) base his reconstruction on a sample that was heavily weighted toward societies at the other geographical extreme, Polynesia. It is another region in which most societies are characterized by bilateral descent and, in some cases, organized in terms of cognatic descent groups. Of the 11 Austronesian speaking societies listed in his table 62 (societies with Hawaiian-type social organization), nine are Polynesian, and two of the other three are Melanesian (Blust 1980a: 222).

It can be argued that the tendency to view ancestral Austronesian or MP social organization through the lens of a single cultural subregion is also reflected in the principle competitor to the bilateral hypothesis. Following Blust (1980a), on whose linguistic reconstructions it is based, I refer to this as the “prescriptive alliance theory.” There is only one region in the Austronesian-speaking world in which systems of prescriptive alliance predominate, Eastern Indonesia.

A system of prescriptive alliance is based on a marriage rule requiring a male Ego to marry a woman of the same kinship category as his MBD but forbids him to marry any woman of the same category as his FZD (see Figure 1). As the diagram in Figure 1 makes clear, such a system results in the unidirectional flow of women in marriage, so that no group takes their wives from groups to whom they give women in marriage. For this reason “prescriptive alliance” could also be called “asymmetric exchange.” It requires a minimum of three groups in order to function (Figure 2). Blust (1993) reconstructs a PMP sibling terminology that was based on three dimensions of contrast: (1) relative sex (whether the designated kinsman is the same or opposite sex as the speaker), (2) relative age (whether alter is older than, or younger than, the speaker; applied only to a person’s same-sex siblings or their terminological equivalents), and (3) sex of alter (a distinction made only in the case of an opposite sex siblings). He notes that Murdock (1949) established that sibling classification systems like this are negatively correlated with organization in terms of bilateral kindreds or demes and concludes that “early Austronesian society” was organized in terms of some form of descent groups. Blust (1976, 1980a) also reconstructs a PAN word *Rumaq (“family dwelling” but also “house,” as in “house of Windsor”), which, he argues, was applied to the lineage or some other

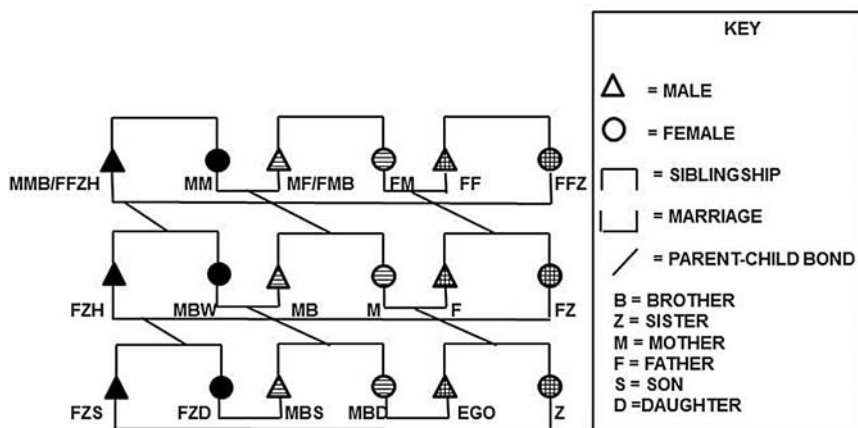


Figure 1. Prescriptive alliance with three patrilineal groups. In a system of prescriptive alliance or asymmetric exchange, a male Ego marries a woman equivalent to his MBD. He is prohibited to marry a woman equivalent to his FZD. In such a system no group can be both wife givers and wife takers to any other group. Ego's group stands in a wife-taking relationship to the same group, generation after generation.

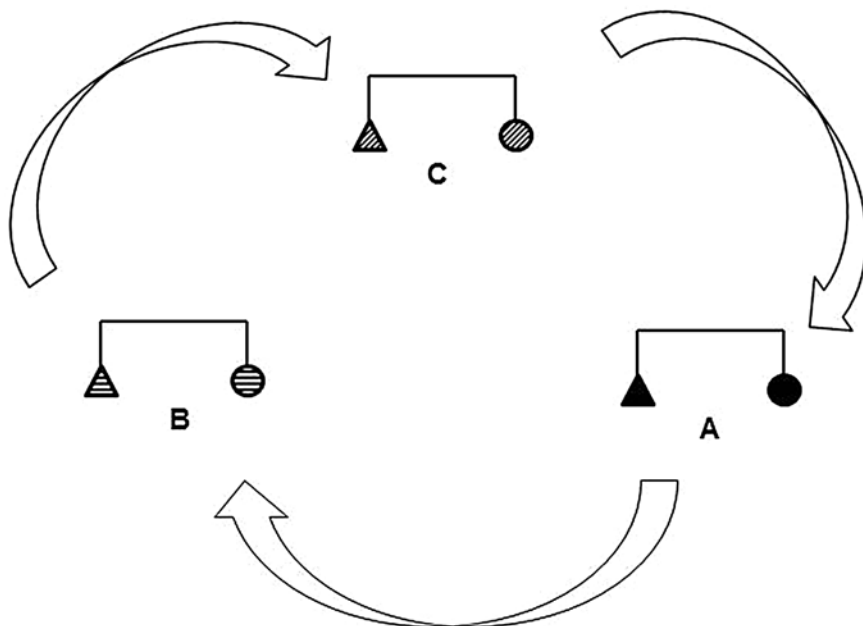


Figure 2. Prescriptive alliance. A system of prescriptive alliance requires a minimum of three groups in order to function. The flow of women in marriage is in one direction only. In eastern Indonesian systems of prescriptive alliance, wife givers as “givers of life” are superior to wife takers. In the diagram, A is superior to B, and B is superior to C. But since C gives wives to A, it is superior to it.

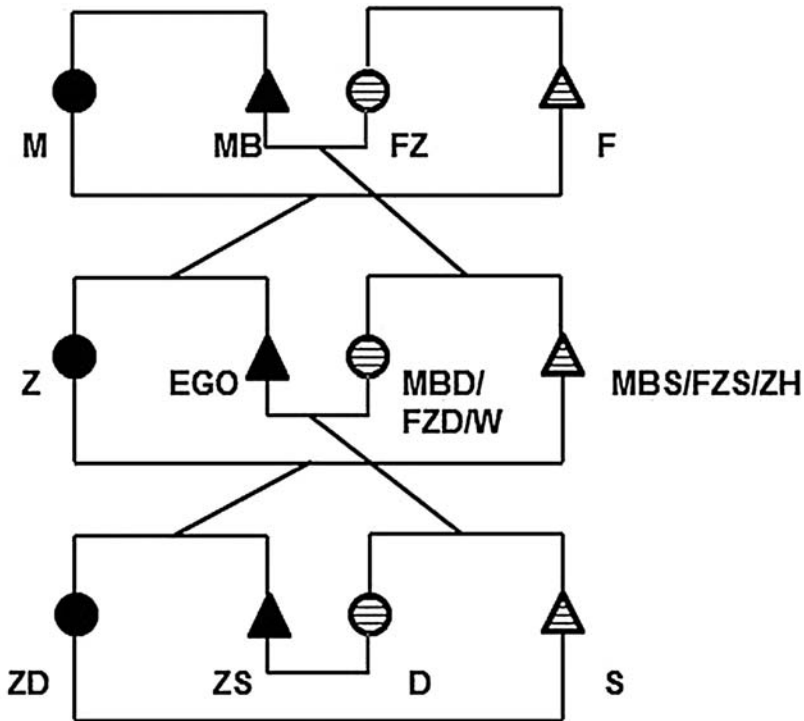


Figure 3. A system of symmetric exchange linking two matrilineal groups. In this idealized model of such a system, a male Ego marries a woman who is related to him simultaneously as his MBD and his FZD—a bilateral cross cousin. Another way to look at this is as a pattern of sister exchange between two (matrilineally defined) groups of men, “stripes” and “solids.” Because this is a back-and-forth exchange of women, it is symmetric exchange.

type of descent group, another difficulty for the bilateral hypothesis (but see Fox 1980: 234). (In historical linguistics, the asterisk indicates a reconstructed word.)

Blust (1980a) goes on to reconstruct candidates for some of the kin terms that a system of prescriptive alliance would normally include. Elsewhere (Turner 2007), I have argued that Blust’s own linguistic data and stated methodology would lead one to attribute meanings reflective of symmetric exchange to some of his PMP reconstructions (see also Aberle 1980), as one of Blust’s own footnotes acknowledges (1980a: 213–214). The simplest example of symmetric exchange would be “sister exchange,” in which two groups of brothers give their sisters in marriage to one another. In such a system, one group can be both wife givers and wife takers in relation to another. Like prescriptive alliance, a system of symmetric exchange is based on a rule requiring a person to marry someone related to him/her as a cross cousin, with the important difference that the intended spouse can be either an FZCh or an MBCh and, indeed, might be related in both ways

simultaneously (a bilateral cross cousin). To put it another way, in systems based on symmetric exchange, matrilineal and patrilineal cross cousins are called by the same kin terms.

Such a system can function with just two exogamous groups and is often associated with moieties. (See Figure 3 for an idealized model of bilateral cross-cousin marriage/symmetric exchange.) I presented a detailed critique of Blust's argument in another publication (Turner 2007) and do not revisit the discussion here. I will note, however, that a system of bilateral cross-cousin marriage is entirely compatible with the system of moieties he attributes elsewhere to PMP society (Blust 1980b). A moiety system divides an entire society into two groups, and often the moieties are exogamous, meaning one is required to marry a man or woman of the opposite moiety. Moieties are sometimes bisected by marriage classes, resulting in a dual system cross-cut by another duality. In such a system, one must select a spouse not only from the opposite moiety but also from the appropriate class within it. The significance of this here is that Blust (1980a) hypothesizes that PMP society had a quadripartite structure and reconstructs two possible terms in PMP that may have been applied to the four divisions: **suku* and **na xe(m)pat na balay/na xe(m)pat na Rumaq* (literally, "the four houses"). He begins by discussing these as intermarrying descent groups, citing the work of the Dutch ethnographer F. A. E. Van Wouden.

Van Wouden [1968 (1935)] interpreted the existence of dual divisions in some eastern Indonesian societies as residues of a prior situation in which double unilineal descent was combined with prescriptive matrilineal cross-cousin marriage (the prescriptive alliance of Blust 1980a). Van Wouden envisioned this ancestral double unilineal system as involving cross-cutting patrilineal and matrilineal moieties, which, when conjoined, divide society into quarters. Each patrimoiety consisted of paired patrilineal clans, and similarly, each matrimoiety also consisted of two clans. The four patrilineal clans combined with the four matrilineal clans to produce a total of 16 marriage classes (see Figure 4). In marrying a woman equivalent to his MBD, a man was taking a wife from the opposite matrimoiety and opposite patrimoiety simultaneously. It has been pointed out that existing societies in eastern Indonesia do not display all of the main features of this model; indeed, Van Wouden proposed it to account for the variations in social structure found there, which he explained in terms of local differences in the ancestral system's decay. However, all the eastern Indonesian societies that have been studied do display dualism of some form or other in social and symbolic categories (see Fox 1989).

A system such as that proposed by Van Wouden [1968 (1935); i.e., cross-cutting matrilineal and patrilineal moieties with 16 marriage classes] would have been possible, but positing such a system seems far less parsimonious than hypothesizing a prior regime of simple dual organization associated with bilateral cross-cousin marriage (symmetric exchange), transformed unevenly into systems of prescriptive alliance. This is particularly true given the fact that meanings suggestive of symmetric exchange can be attributed to key kin terms that Blust reconstructed for PMP. Committed to the model of PMP society as a system of prescriptive alliance, Blust (1980a) rejected reconstructions reflecting symmetrical

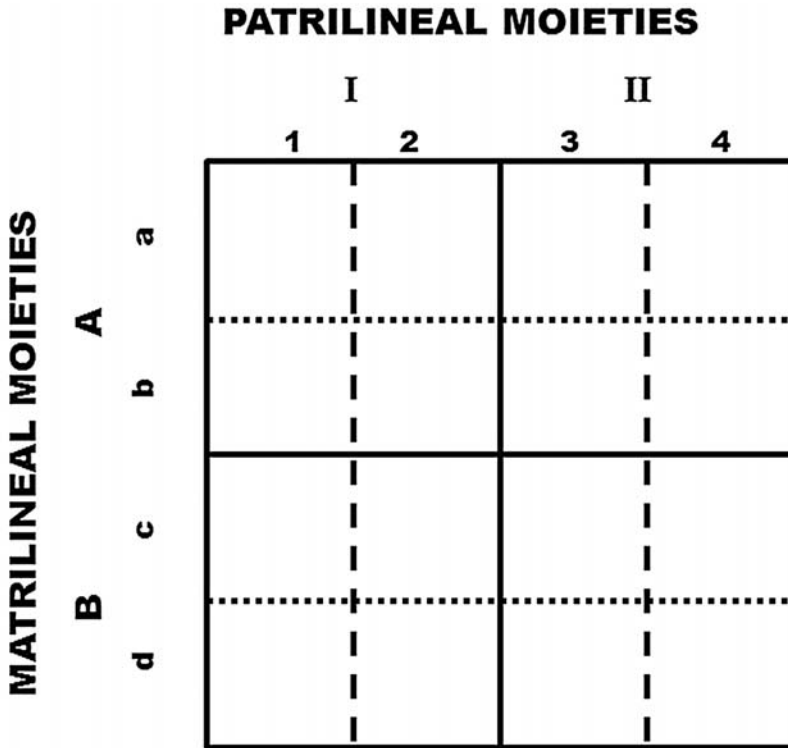


Figure 4. Van Wouden's model of early Indonesian affinal alliance (adapted from Blust 1980b: 220). The patrilineal moieties I and II are divided into two clans each, 1 and 2, and 3 and 4. Similarly, the matrilineal moieties A and B are each divided into two clans, a and b, and c and d. Each of the 16 small cells corresponds to a marriage class. The cross-cutting patrilineal and matrilineal moieties divide society into four quarters, IA, IB, IIA, and IIB; each of the quarters, in turn, contains four marriage classes in a kind of "recursive quadripartition."

exchange (bilateral cross-cousin marriage), violating his own methodological rules (Turner 2007). On this point, it is worth noting that Rodney Needham (1967: 45–46) argued for a universal evolutionary sequence moving from exogamous moieties and symmetric exchange to increasing asymmetry and noted the combining of symmetric features with asymmetric exchange ("prescriptive alliance") in many eastern Indonesian societies. He interpreted these facts as residues of ancestral systems of symmetric exchange. Gregory Forth (1990) makes a convincing case that just such a transition from symmetry to asymmetry occurred in eastern Sumba.

I argue that a system of symmetric exchange, possibly associated with exogamous moieties, is more likely to have characterized PMP society than Blust's reconstruction in terms of asymmetric exchange in a quadripartite system. I see the prescriptive alliance systems of eastern Indonesia as a later, regional

development (Turner 2007). But both of these models provide a context for understanding an aspect of Oceanic MP societies that the bilateral hypothesis of Kroeber and Murdock does not. I refer to the tendency for “recursive dualism” that has been identified as a characteristic of a number of Oceanic societies. Eyde (1983) coined the term to refer to the tendency for dual categories of thought (e.g., male:female) to be further bisected by the same opposed categories, noting that this subdivision is infinitely repeatable. For example, a Manus house is internally subdivided into male (front) and female (back) spaces, each of which have male and female sides. Sahlins (1976) identified a similar tendency for dualism in Fiji and Tonga. Other Oceanic societies where systematic dualism has been identified include Bush Mekeo (Mosko 1985), Anuta (Feinberg 1980), and the Trobriand Islands (Mosko 1985). Quadripartite structures of thought and social organization can also be found (for Tikopia, see Hooper 1981; Eyde 1969; for the Trobriand Islands, see Leach 1958).

The tendency to think in terms of dualities is, of course, very common in cultures around the world, but elaborate systems of homologous binary oppositions are often associated with dual organization (e.g., moiety systems; see, e.g., Needham 1958, 1960, 1973; Fox 1989; McWilliam 1994). And in those Oceanic societies in which moiety systems are absent today, the tendency for recursive dualism, patterns of homologous dualism (e.g., low:high :: land:sea :: left:right :: female:male), and quadripartite organization raise the issue of possible retention of a cognitive pattern associated with moiety organization in the past (see Blust 1981a).

One final point to make on the issue of asymmetric versus symmetric marriage systems: the ideal models of prescriptive matrilineal cross-cousin marriage (“asymmetric exchange” or “prescriptive alliance”) and bilateral cross-cousin marriage (Figures 2 and 4, respectively) suggest different effects on the distribution of mtDNA lineages. If the intermarrying groups are localized, the unidirectional flow of women associated with matrilineal cross-cousin marriage will result in differences in the distribution of genetic lineages between intermarrying groups, whereas the back-and-forth flow of women associated with symmetric exchange would lead to a leveling of difference. In reality, normally in either type of system numerous persons will be marriageable—including persons with whom no prior kinship relationship is recognized or to whom an ego is related by multiple paths of reckoning (at least one of which places him/her in a marriageable kin category). On the level of genetic lineages, the result may be a diffuse web of marriage ties rather than a repetition of past alliances. The degree to which marriage with “close” kin (e.g., an actual MBCh or FZCh) is preferred or avoided is a more significant factor to consider.

Early Cultivator-Forager Contact in the Philippines

Human occupation of the Philippines dates back to the Pleistocene. At Callao Cave east of Luzon’s Cagayan Valley, a single human metatarsal bone of very small size has been dated to 66,000 BP (Mijares et al. 2010) Détoit and associates have

uncovered a long history of occupation in Tabon Cave on Palawan, dating back to at least 30,000 BP (Détroit et al. this issue). Human remains recovered from the cave show a range of variability from large, robust individuals to small, gracile specimens that would fall within the range of today's negrito populations. Whether or not further study supports the interpretation of the Callao Cave metatarsal as the remains of a small-statured AMH, it is clear that human settlement in the Philippines has great antiquity and predates the arrival of PMPs by millennia.

Since Taiwan, the presumed homeland of PAN speakers, lies almost directly north of Luzon, it is reasonable to assume that the first settlements of PMPs in the Philippines were concentrated on Luzon's northeastern coast and along estuaries. Perhaps initially their subsistence strategies were more oriented to maritime foraging than to cultivation (Bulbeck 2008), but swidden cultivation was likely to have played some part. Exploitation of both the littoral and forest would have placed them in competition with indigenous groups for whom coastal areas would have been prime resource zones (Reid 2007). But certain components of the PMP cultural inventory would have also made interaction with the newcomers attractive to indigenous groups—pottery, woven cloth, and especially starchy agricultural foods. With respect to the latter, however, it is possible that in the early period of first Austronesian settlement, swiddens were not large enough to produce a surplus for trade. In the Peñablanca caves east of the Cagayan Valley, including the previously mentioned Callao Cave, there is evidence of occupation by foragers in the period of early Austronesian settlement (4,000–3,500 BP); pottery, stone and clay lingling-o earrings, baked clay spindle whorls, and stone and clay beads attest to contact (whether direct or indirect through trading links with other forager groups) with Austronesians, but there is no evidence of rice, and in general, there is only limited evidence of rice anywhere on Luzon in this early period (Mijares 2006). Perhaps cultivated foods, including rice, were being exchanged with those foraging groups in closest proximity to early Austronesian settlements but not in amounts sufficient to permit their introduction into trading networks with other foraging bands.

As the Austronesian presence in coastal sites became more established, the seasonal movements of the immediately affected forager bands must have been impacted. They would no longer have exclusive use of marine resources over a stretch of coastline, and once they had access to garden produce (whether through trade with Austronesians or through their own swiddens), utilization of wild plant foods might also have been adjusted. It is clear that, over time, their interaction with Austronesians intensified and might well have been one of, at least temporary, residence in the same or neighboring settlements. This can be adduced from the fact that all negrito populations in the Philippines speak MP languages, and the evidence is that they adopted the languages of their Austronesian neighbors early in the contact period (Reid 2007: 13). In these situations of contact, there may have been an initial pidgin stage, followed by creolization, and finally “decreolization.” Still, this degree of language change implies sustained and intimate contact between the two types of people. However, the nature of the contact—whether early and sustained, early but followed by separation, or intermittent and cyclic, and whether

with the same MP language or different languages—appears to differ from one negrito group to another (Reid this issue).

It is not uncommon for there to be intermarriage or capture of women when an intrusive group of food producers encounters indigenous foragers. If entered into freely, such exchanges can work to the advantage of both groups. It gives foragers access to the unique products and skills of the settlers and can confer a degree of legitimacy to the intrusive group's claim to living space, as well as access to the local knowledge and the products of the foragers. Of course, it also gives the group that achieves a net increase of women reproductive resources that it did not have before.

The cross-cultural evidence is that, in such cases of intermarriage, the flow of women tends to be from foragers to food producers (Bentley et al. 2009). There are various reasons for this in specific cases, including differences in political organization and technology (giving a military advantage to the intrusive food producers), a skewing of the sex ratio among the in-coming population (more men than women), and the lack of skills and knowledge necessary to live the foraging way of life among settler women. Consequently, in the early generations following contact, we would expect to find a high frequency of mtDNA lineages of the indigenous foragers and nonrecombining Y-chromosome lineages derived from elsewhere among the agricultural populations descended from the initial settlers. Bentley et al. (2009) note that, in Europe, where agricultural communities with Near Eastern roots intruded into regions inhabited by indigenous Mesolithic foragers, this seems to be the pattern. However, “the Y-chromosome Near Eastern contribution” falls to “less than 20% in Central Europe and to 5–10% in the Baltic region and northern Europe (Zvelebil 2006)” (Bentley et al. 2009: 171), suggesting a different pattern in the transmission of the Neolithic complex. [On the differences of Baltic and Finnish from other European populations with respect to Y-chromosome lineages, see also Roewer et al. (2005), who attribute it to a pattern of patrilocal residence in which in-marrying women and their husbands lived with or near the husband's father, mitigating against the establishment of settler Y-chromosome lineages.]

Through intermarriage, the special skills and knowledge of each type of group would have come to be shared, as would genes and phenotypic traits. Bulbeck's (this issue) suggestion that the phenotypic characteristics of the offspring of “mixed” marriages might ease their incorporation into one group or the other seems reasonable. Over time, increasing population and associated demands for resources on the part of cultivators undoubtedly sometimes lead to conflict and subsequent separation between the two types of people. Alternatively, in some cases, rather than each group taking up aspects of the subsistence pattern of the other, there may have been an intensification of specialization and continued trade and interdependence. This interdependence can take subtle forms; Peterson (1981) found that the Agta of Palanan Bay in northeastern Luzon preferred to remain close to agriculturalists because of the superior hunting in the ecotone surrounding swidden gardens (cited in Benjamin this issue). Over the long run, though, food producers had a demographic advantage and expanded territorially.

Over the millennia since the first settlement by MP speakers, the genetic picture in the Philippines became more complicated. Some local groups composed of descendants of indigenous foragers probably adopted a settled village way of life, becoming indistinguishable in subsistence pattern from other groups descended from Austronesian settlers (e.g., the Ata Manobo; see Reid 1994). In some cases, patterns of intermarriage undoubtedly included men, wholly or partially descended from Austronesian settlers, marrying into foraging groups. This would explain the extreme diversity in the Y-chromosome lineages among both negrito and non-negrito ethnolinguistic groups reported by Delfin et al. (2011). All six of the negrito groups sampled for that study shared at least some Y-chromosome haplogroups with non-negrito groups.

Interestingly, two haplogroups, C-RPS4Y and K-M9, seem to indicate an ancient shared ancestry among the negrito groups. (C-RPS4Y is found among three of the negrito groups; K-M9 is found among all six but among only four of the ten non-negrito groups sampled.) These same haplogroups link the negrito groups with indigenous Australians (Delfin et al. 2011: 229). My interests here are in the early period of contact between Austronesians and indigenous foragers in the Philippines. I have argued elsewhere (Turner 2007) that PAN speakers and PMP speakers both had systems of symmetric exchange based upon a bilateral cross-cousin marriage rule and associated Dravidian-type kinship terminologies. In the case of both PAN and the daughter language, PMP, the system of symmetric exchange may have been associated with matrilineal descent and a matrilocal residence rule. All of these factors would have facilitated the incorporation of forager women into settler communities and encouraged a repetition of marital alliances.

But what can be said about the original kinship systems of the indigenous foragers that Austronesian settlers encountered? Given the time depth of the human presence in the Philippines (on the order of $\geq 50,000$ years), the wide geographical spread of the islands, the likely long separation between the indigenous foragers of Luzon and Mindanao (20,000–30,000 years), and the political autonomy typical of foraging bands, it is likely that there was considerable linguistic diversity at the time of the Austronesian speakers' arrival, perhaps on an order comparable to that of non-Austronesian (NAN; sometimes called "Papuan") languages of New Guinea (Reid 2007: 10). There is intriguing evidence for shared elements of belief and a shared lexical substratum among negrito languages, even between the Austro-Asiatic-speaking Semang groups of Malaysia and the Austronesian-speaking groups of the Philippines (see Cooper 1941; Blust 1981b, 1994; Blust this issue). However, because there is no way to reconstruct whatever shared languages might have linked the ancestors of the various negrito peoples prior to the arrival of horticulturalists, there is no way to know what type of kinship terminologies they might have had at the time of first contact.

What Explains the Shift from Dravidian to Bilateral Systems?

Whatever types of kinship systems the Austronesian settlers and indigenous foragers of the Philippines had in the past, today all of the ethnolinguistic groups of the Philippines speak languages within the Western Malayo-Polynesian branch of Austronesian, all of them have similar bilateral systems organized around the nuclear family and kindred with generational kinship terminologies, and none of them have prescriptive marriage rules. Whether one argues that PAN or PMP kinship was structured by a matrilineal cross-cousin marriage rule (“prescriptive alliance” or “asymmetric exchange”; Blust 1980a; Hage 2001) or was a system of symmetrical exchange based on a bilateral cross-cousin marriage rule (Turner 2007), one owes some explanation for why such systems have disappeared in the Philippines.

Not just in the Philippines but throughout the vast area where Western Malayo-Polynesian languages are spoken, the majority of peoples are organized bilaterally and lack prescriptive marriage rules. (The Toba Batak of northern Sumatra have a system of prescriptive asymmetric alliance.) Fox (1995) noted correlations among the bilaterality of many societies of the region, island size, and the possibilities for territorial expansion by initial Austronesian settlers. This expansion would probably have been along the coastlines at first, since coastal environments would have been familiar. Estuaries and the broad fertile valleys upriver would also have been attractive environments (e.g., Cagayan Valley of northeastern Luzon). Population increase was a reason for this territorial expansion, of course, but Fox argues that status enhancement was also a motive:

The principal mode of social differentiation in these societies [i.e., Austronesian societies of the larger islands of the Philippines and western Indonesia] is relative age (i.e., elder/younger) which may, in certain contexts, provide the means of creating an extended order of precedence . . . but more generally offers an opportune line of fission, whereby the younger—or in a few cases, the elder—sibling simply moves away to found a new settlement. (Fox 1995: 223)

Fox also points out that this hiving off process would not have been possible on the smaller islands of the Austronesian world, nor was it along the coast of New Guinea, where expansion into the interior was blocked by indigenous non-Austronesian speakers, and where newcomers were limited to narrow coastal footholds or small offshore islands (Fox 1995: 223). Of necessity, trading often became an important economic activity for Austronesian settlers under these conditions.

According to Fox, on smaller islands (though not islands too small or resource-poor to support elaborate hierarchies), status rivalry came to be structured by “subtle and elaborate” systems of various overlapping principles. Among them is a founder-focused ideology that characterizes many MP societies (Bellwood 1996). Founders are revered and the status of their descendants enhanced vis-à-vis groups that arrive later. This type of status system is associated with elaborated

origin traditions and the use of genealogy to establish connections to an original source. Fox (1995) points out that throughout the MP world, a single principle has been used to establish exclusivity of status in such systems. He calls it “apical demotion.” This “dynastic device” is driven by seniority of descent, which ensures that “only one line retains status; and within that line, in each generation, ultimately one individual” (Fox 1995: 223).

Systems of apical demotion are associated with sacred rulers—kings, rajas, sultans, or high chiefs. They are also characterized by what Fox (1995: 224) calls “predatory expulsion.” Individuals or groups of sufficiently high rank become magnets for followers. They may mount challenges against established hierarchies or leave and establish new systems elsewhere. Thus, whether expressed in the lateral hiving off process found on the large islands of the west or the processes of apical demotion and predatory expulsion, status rivalry has fueled colonization and expansion throughout the Austronesian world and, at the same time, myriad local transformations of the ancestral PMP kinship system.

Though hierarchy based on other principles (personal seniority, seniority of descent) were no doubt present among PAN speakers and their descendants, the speakers of PMP, the bilateral cross-cousin marriage system that I have attributed to PMP society establishes relations of symmetry and equivalence between affines (persons or groups related through marriage). Two exchanging groups are both wife givers and wife takers in relation to one another. In other words, marriage does not create systems of transitive inequality of the type associated with asymmetric prescriptive alliance, in which not only are my wife givers superior to me, but they are also superior to those to whom I give women in marriage. I hypothesize that in the pioneer expansion into the large islands of the Philippines and western Indonesia, structures of symmetrical alliance gave way to more open marriage systems. The emphasis on the brother-sister bond, important in both asymmetric and symmetric prescriptive systems, was replaced by a greater emphasis on the husband-wife bond. Seniority and precedence emerged as the pre-eminent principles of inequality, and the nuclear family and ego-focused bilateral kindred replaced ancestor-focused descent group organization. Genealogies preserved the names of both marriage partners, and both maternal and paternal lines became important in determining the status of descendants. Finally, with the gradual relaxation of the prescriptive marriage rule, the distinctions between cross and parallel collateral relatives disappeared, giving rise to either Hawaiian- or Eskimo-type terminologies.

Millennia after their ancestors departed from Taiwan, many Western Malayo-Polynesian speaking societies were affected by Indian and later by Islamic influences, by emerging states, and by the transformation of tribal or tributary systems into peasant modes of production. I believe that some of these later influences (e.g., the emerging peasant mode of production) strengthened and modified the essentially bilateral organization of some of these societies, but the transformation of the ancestral MP system would have begun much earlier.

It is anticipated that, at the same time that PMP society, or the daughter

societies that emerged from it, underwent these changes, a system of symbiosis was developing between agricultural and forager groups. Cultivators provided foragers with starchy cultivated foods, while foragers supplied cultivators with game, rattan, and other forest products, as well as their labor in field clearing. In order for such a system to emerge, both types of groups would have had to maintain distinct identities and distinct ways of life, but their social systems would also need to have a degree of compatibility. Whatever type of kinship and marriage system the ancestors of foragers might have had prior to Austronesian settlement, along with adoption of Austronesian languages, they also developed (or already had) bilateral kinship systems with a nuclear family focus. This provided foragers with the residential flexibility that foraging required under changed conditions. Movement between different bands allowed a redistribution of population in relation to resources, including trade with cultivating communities. It also provided a safety valve in cases of internal conflict in an acephalous, band-level society, and promoted the maintenance of relationships of kinship and marriage between different band territories.

Convergent Analyses

Systems of kinship and marriage regulate social interaction, including mating patterns, and in so doing they leave traces in the genetic makeup of populations. When combined with other types of data, existing genetic distributions can assist in constructing more convincing models of early social systems. As an example of the kind of triangulation possible when genetic data are combined with other kinds of evidence, consider the example of Proto-Oceanic (POc) society. POc is the ancestral language from which all of the MP languages of the island regions of Polynesia, Micronesia (except for the languages of Palau and the Marianas), and Melanesia [including those of the northern New Guinea coast west of Geelvink (Cenderawasih) Bay] are descended. POc was spoken in the Bismarck Archipelago ~1,200–1,000 BC. Speakers of the language were associated with the Western Lapita tradition, an archaeological culture named for the elaborate dentate pottery with which it was associated (Marck 2008). Per Hage (1999) used a combination of historical linguistic, ethnological, and cross-cultural data to argue that POc society had been organized into unilineal descent groups. In an earlier publication, Hage (1998) had suggested it was matrilineal in organization. Later, Hage and Marck (2003) pointed out that data on mtDNA and Y-chromosome lineage origins and distribution in Polynesia could be interpreted in terms of POc matrilineality. For example, they noted that the most common mtDNA lineage found in Polynesian populations (accounting for 90–95% of Polynesian mtDNA) is of Asiatic origin, while the most common Y-chromosome haplotype (accounting for 82% of Cook Islands, 70% of Western Samoan, 26% of coastal Papua New Guinean, and 9–12% Indonesian Y-chromosomes) originated in Melanesia an estimated 11,500 kya, long before the entry of Austronesian-speaking populations into the region (Hage and Marck 2003: 122; see also Kayser et al. 2006; Marck 2008). They interpreted this in

terms of POc matrilineality combined with an intense matrilocal residence pattern. In other words, indigenous Melanesian men married into Oceanic Austronesian communities, and their Y-chromosome lineages were established before the ancestors of the Polynesians left the large islands of western Melanesia and ventured into remote Oceania.

Hage and Marck (2003) suggested that POc matriliney and matrilocality were related to the importance of interisland trade, a predominantly male activity. Rivers (1914) had believed that matrilineal institutions were on the wane in island Melanesia, and Marck (2008) pointed out that, if this were so, it could be because of the dwindling importance of migration and interisland voyaging in the post-Lapita Pacific.

Other types of analyses lead to conclusions similar to those suggested by the genetic data above. For example, Allen (1984) argued that matriliney, with its inflexible rule of affiliation, was able to persist in some parts of island Melanesia because non-descent-based institutions such as voluntary male secret societies (e.g., on Mota in the Banks Islands) and male graded societies (e.g., those in northern Vanuatu, formerly the New Hebrides) provided outlets for male political ambition. Finally, in a region-by-region examination of the recent distribution of matrilineality in Oceania, Marck (2008) argued that the pattern of distribution can best be explained by Hage's (1998) suggestion that POc/Lapita society, the society from which all existing Oceanic societies are descended, was itself matrilineal.

In the case of POc society, the agreement in the conclusions reached by several different kinds of analyses allows us to be fairly confident in reconstructing POc society as matrilineal and matrilocal. In the case that we have been considering here, however, PMP society and its early contact with the indigenous foragers of the Philippines, the time depth is considerably greater, the daughter languages and societies descended from POc are more numerous, and the genetic data are more opaque with respect to marriage and residence rules. Moreover, the specific issues we have been considering, the structure of the POc kinship terminology and the type of marriage rules with which it was associated, would not have discernible genetic consequences unless combined with a specific residence rule (e.g., matrilocal residence), a strong preference for marriage with close kin of a specific other localized kin groups (rather than more distantly related kin classifiable as cross cousins), or a combination of the two. (A stringent residence rule would result in localized differences in the distribution of specific mtDNA or Y-chromosome lineages and specific autosomal alleles [see Fix 1995] while a tendency to form "closed" exchange systems through a strong preference for marriage between close kin of specific groups would also lead to localized differences.) Even if a stringent residence rule and strong preference for marriage with close kin had characterized POc society, the switch to bilateral kinship system and a more "open" marriage system (one with negative rules *prohibiting* marriage between close kin but no *positive* rule requiring marriage with a particular kind of relative) happened long ago. This leaves linguistic reconstruction as our principal source of insight on PMP kinship and marriage, and I have argued here and elsewhere that symmetric

exchange structured by bilateral cross-cousin marriage is the best interpretation of that evidence.

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