How do kinship and ritual systems articulate with patterns of social organization? Among the Pueblos of New Mexico and Arizona, social organization has been described as conforming to two opposing patterns. Among the Eastern Pueblos of the Rio Grande, especially the Tanoan-speaking towns north of Santa Fe, kinship is held to play a structurally insignificant role; social organization there, rather, pivots on ritual sodalities. In the Western Pueblos (especially Hopi and Zuni), named matrilineal descent groups (“clans” and lineages), associated with Crow kinship terminology, are treated as the main articulating features of the social system. How is it that notwithstanding major cultural similarities in other respects, the Pueblos came to exhibit such different structuring principles for social life? This paper argues for greater similarities in the kinship and ritual systems of Eastern and Western Pueblos than has previously been ascribed to them, and suggests that dual exchange, of a type associated with kinship and marriage rules, underlies their differences.

Introduction
The Pueblo Indians today comprise nineteen principal towns in New Mexico and twelve —the Hopi—in Arizona. All have a primarily sedentary, horticultural adaptation. There are six languages: Tiwa, Tewa, and Towa, of the Kiowa-Tanoan family; Keresan and Zuni, both isolates; and Hopi, a Uto-Aztecan language. Over the last few centuries, the Pueblos were surrounded and interspersed, not only by settler cities and towns, beginning with Santa Fe in 1598, but also by other Native nations: Navajo and Apache of the Athapaskan family; Ute, Paiute, O’odham (Pima-Papago), and Comanche of the Uto-Aztecan family; and Havasupai, Walapai, and Yavapai of the Yuman family.

Amidst this internal and external diversity, the Pueblos retain much shared culture, especially with regard to ritual and religion (see, e.g., Parsons 1939, Ortiz 1969, Dozier 1970, Whiteley 1989). This is especially evident (Figure 1) in:

1) ritual practices, notably featuring Katsinas, or ancestral spirits who manifest themselves as clouds and masked dancers;
2) cosmology, involving a quadripartite division of the universe by directions, colors, and other symbols;
3) religious sensibility, which is oriented towards production of beneficial natural conditions;
4) the social organization of political and ritual life, involving group curing societies rather than individual shamans, and initiated sodalities, like Keresan and Tanoan Bear Medicine and Clown societies, the Hopi Snake and Antelope societies, Zuni rain priesthoods, etc.

While there has been much change over the last century, many “traditional” Pueblo practices persist into the present.
Kinship and Social Organization in Comparative Context

Pueblo kinship and social organization have long been important questions for Southwestern anthropology and indeed for comparative anthropology more generally. A.H. Kroeber (1917) inaugurated theorized study with *Zuni Kin and Clan*, that included some systematic comparisons beyond Zuni to the other Pueblos. Fred Eggan’s *Social Organization of the Western Pueblos* (1950) was the next great leap forward: a watershed moment for the social anthropology of Native North America. Eggan posited a division between the Western and Eastern Pueblos, with the former (especially Hopi and Zuni) articulated by a plurality of corporate matrilineal descent groups (“clans” and lineages) associated with “Crow” kin-terminology. Eggan represented the significance of kinship as declining as one moved to the east, especially among the Tewa and Northern Tiwa Pueblos of the upper Rio Grande. Here social organization was configured by non-exogamous ritual moieties and other ritual sodalities aligned with them, none of which were evidently co-ordinate with kinship groups. Tewa and Northern Tiwa kinship-reckoning, at least as described by ethnographers beginning in the early 20th century, was bilateral, and its terminology “normal Eskimo” (Murdock 1949:228)—i.e., just like the typical European and non-Native American system. Moreover, according to J.P. Harrington (1912:472), ordinary usage of Tewa kin-terms tends to be highly “descriptive.” In Lewis Henry Morgan’s terms—more so than for any other Native Southwestern people.

“Descriptive” vs. “classificatory” types of kin-terminology is Morgan’s (1871) famous distinction from his pioneering global study of kinship and marriage systems. “Classificatory” kinship terms group lineal and collateral relatives together; for example, my mother (lineal to myself) and her sister (collateral to myself) are grouped together terminologically (figure 2): I call them by the same term. “Descriptive” systems, on the other hand, distinguish lineal from collateral kin—I only have one “mother,” and it is only her children who are (ordinarily) my “siblings,” rather than, say, in an “Iroquois” system, where I also call “siblings” my mother’s sister’s children and my father’s brother’s children.

![Figure 2: Lineal and Collateral kin, also showing parallel- vs. cross-cousins.](image)
In a descriptive system, to explain how a particular person I call “cousin” is in fact my cousin, I must resort to combinations of primary kin-terms associated with the nuclear family: he is my “father’s sister’s son,” or she is “my mother’s sister’s daughter,” etc.” In essence, it is the standard use of such combining strings of primary terms in social discourse that defines Morgan’s sense of “descriptive” terminologies. The proliferation of such compound terms among the Rio Grande Tewa is what struck Harrington as so unusual.” In a descriptive system, “each relationship is…made independent and distinct from every other;” whereas in a classificatory system, one’s relatives are assigned to “great classes…[with] the same terms [applied] to all the members of the same class” (Morgan 1871:12). Of the six major types of kin-terminologies that came to be recognized in the 20th century (figure 3), two are descriptive (“Eskimo and “Sudanese),” and the other four are classificatory (“Iroquois,” “Hawaiian,” “Crow,” and “Omaha”).

Moreover, from comparative study, Murdock (1949:99) concluded that while classificatory systems are very widespread throughout the world, except in central Africa, descriptive kin-terms “appear only sporadically in kinship terminologies.” In effect, Murdock confirmed Harrington’s position on Rio Grande Tewa terminology: that the highly descriptive terminology of the Tewa Pueblos is unusual, especially as the Tewas were historically surrounded by other Native peoples whose terminologies were all classificatory.

**Pueblo Social Systems**

Pueblo social systems are notoriously complex for their population size. Reasons for the complexity have been hypothesized, inter alia, as owing to recent historical consolidation of formerly discrete groups (who, upon amalgamating, retained their own separate socio-cultural privileges), or to an endemic pattern of “ emulation,” where ritual sodalities and perhaps also totemically named kinship groups have proliferated as assertions, by differentiated internal aggregations, of their social capital (see Ware 2014). Pueblo social systems typically interweave kinship groups (those based on unilineal descent and those of the “house” type, in Lévi-Strauss’s [1982] sense of sociétés à maison, where groups are recruited by a combination of kinship and extra-kinship ties) with layered ritual groups. Western Pueblo kinship is typically Crow in terminology, meaning that, like other classificatory systems, lineal and collateral kin are grouped into classes. What distinguishes a Crow system (and its structurally obverse companion, Omaha) is that some classes combine people of different generations (see figure 3). The whole terminology is thus characterized by generational “skewing.” So for the Hopi, the same two terms, na and kya, are applied to members of at least three generations: na (a male term) is used to refer to my father, his brothers, his sisters’ sons, and his sister’s daughters’ sons; similarly, kya (a female term) is used for one’s father’s sisters, their daughters, and their daughters’ daughters. These Crow “skewing equations” follow a “matriline,” a line of links through females from one generation to the next; both the male term na and the female term kya are assigned to individuals in a direct female line.

It is not surprising that Crow terminology is thus typically associated with “matrilineal descent groups,” i.e., social groups whose internal links are all configured by lineal kinship ties among females. (An Omaha system is the exact opposite; skewing follows
Figure 3: The six basic kinship terminologies, represented by (generalized) groupings and distinctions of cousin terms used by Ego-male for his female relatives: 1) Eskimo: Ego calls all same-generation female relatives, except his sister, “cousin;” 2) Sudanese: Ego calls every same-generation female relative by different terms; 3) Iroquois: Ego calls his parallel cousins (mother’s sister’s daughter, father’s brother’s daughter) “sister,” distinguishing his cross-cousins (mother’s brother’s daughter, father’s sister’s daughter) by a separate term; 4) Hawaiian: Ego calls all same-generation female relatives by the same term; 5) Crow: same as Iroquois for parallel cousins; paternal cross-cousins “skewed” down a matriline – same term is used for father’s sister’s daughter, father’s sister, and father’s sister’s daughter’s daughter; maternal cross-cousin called by the same term as brother’s daughter; 6) Omaha: same as Iroquois for parallel cousins; maternal cross-cousins “skewed” down a patriline – same term is used for mother’s brother’s daughter, mother/mother’s sister, and mother’s brother’s son’s daughter; paternal cross-cousin called by the same term as sister’s daughter.
Western Pueblo descent systems (as at Hopi, Zuni, Acoma, and Laguna) are all matrilineal, organizing social groups into multiple named matrilineal clans (Bear, Antelope, Badger, etc.) and into arrays of such clans usually called “phratries,” or the term I prefer, “clan-sets.” This matrilineal clan system is cross-cut by associative ritual sodalities and kiva groups, whose membership is recruited by various principles, but not, or not primarily, by kinship ties. The total structure is thus a tapestry of interwoven social groupings constituted according to different principles (descent, post-marital residence rules, etc.) or for different ritual purposes (curing vs. weather control vs. organization of irrigation, for example). It is this interweaving that shows the structural complexity for societies of comparatively small population size. With just a thousand people in 1900, Hopi Orayvi had some 28 matrilineal clans grouped in 9 exogamous sets, 16 initiated ritual sodalities, and 14 kiva groups (Figure 4; see also Whiteley 2008).

<table>
<thead>
<tr>
<th>Matrilineals</th>
<th>Sodalities</th>
<th>Kivas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set -ngyam (“clan”)</td>
<td>Winter Solstice</td>
<td>Sakwalenui (Blue Flute place)</td>
</tr>
<tr>
<td>I Rabbit; Katsina; Parrot; Raven</td>
<td>&quot;Manhood&quot; Wuwtsim Two-Horn One-Horn Singers</td>
<td>Hawiwwi (Going Down place) Taw (Singers)</td>
</tr>
<tr>
<td>II Bear; Spider</td>
<td></td>
<td>Naasavi (Middle place)</td>
</tr>
<tr>
<td>III Sand; Snake; Lizard</td>
<td>Snake Antelope</td>
<td>Kwan (One-Horn)</td>
</tr>
<tr>
<td>IV Sun; Eagle</td>
<td>Blue Flute Gray Flute</td>
<td>Hotstitsivi (Zigzag place)</td>
</tr>
<tr>
<td>V Bow; Reed; Greasewood</td>
<td>Maraw</td>
<td>Tsu' (Rattlesnake)</td>
</tr>
<tr>
<td>VI Maasaw; Fire; Cedar; Millet; Coyote; Fox</td>
<td>Lakon</td>
<td>Hano (Tanoan)</td>
</tr>
<tr>
<td>VII Badger; Butterfly</td>
<td>O’waqöł Katsina Powamuy</td>
<td>Wiklavi (Fold-of-fat place) Tawa’ovi (Sun above place)</td>
</tr>
<tr>
<td>VIII Corn; Water; Rabbitbrush</td>
<td></td>
<td>Is (Coyote)</td>
</tr>
<tr>
<td>IX Sparrowhawk; Crane; Squash</td>
<td></td>
<td>Katsin (Kachina) Kyarsur (Parrot-tail)</td>
</tr>
</tbody>
</table>

Figure 4: Principal social groupings at Orayvi (Hopi), ca. 1900.
Eastern Pueblo integration is similarly intricate. Jemez, a Towa-speaking Pueblo, has 23 differentially recruited sodalities (Figure 5; Ellis 1964, Sando 1979). Some of the complexity at Jemez definitely reflects historical consolidation of formerly discrete villages (Ellis 1964:11); prior to the Pueblo Revolt of 1680, there were approximately ten

Figure 5: Jemez social organization (Ellis 1964:15)
separate Jemez towns (Sando 1979:418-19). But whatever the historical causes, the basic pattern of interwoven groups with calendrically sequenced rituals, is similar among both the Eastern and the Western Pueblos.

Key ritual structures among both Tanoans (Figure 6) and eastern Keresans are non-exogamous patrimoieties sometimes aligned with a dual system of binarily opposed kivas: Turquoise and Squash moieties and kivas (Keresans and Towa), Winter and Summer moieties (Tewa), Eagle and Arrow men’s sodalities (Towa Jemez), Red Eyes and Black Eyes moieties (Tiwa Isleta), and North and South moieties (Tiwa Taos). Weak,

Figure 6: Postulated structural logic of four Tanoan ritual systems: (L to R) Towa (Jemez), Southern Tiwa (Isleta), Tewa, Northern Tiwa (Taos) (Ellis 1964:44). Ritual moieties, structured variously, intersect with other sodality systems and kiva groups in all four cases.

Figure 7: Puebloan social systems continuum
non-corporate patriclans among the Tewa feature naming practices that echo matrilineal conventions further west (e.g., Whiteley and Snow 2015). Winter and Summer moieties are especially significant among the Tewa, with one moiety (and its chief, or cacique) presiding over village affairs for half of the year, then switching the presiding moiety at the equinoxes.

From such trending patterns, Pueblo social systems have been arrayed along a continuum (Figures 7 and 8) with Crow kinship and matrilineal descent the core features in the west, and dual organization by ritual moieties in the east. The dualism of the latter contrasts with the “pluralism” of the former, whose principal social groups comprise multiple matrilineal clans. In between these two polar extremes, the “Keresan bridge” (Figure 8) contains elements of both eastern and western types.

Importantly, and somewhat neglected in the literature for its analytical value, there is also a Tewa bridge (Figure 8). After the Pueblo Revolt of 1680, a refugee Rio Grande Tewa community formed the village of Hano on the Hopi First Mesa. Tewa remains actively spoken at Hano. There is a dual kiva system, but plural matriclans, at Hano, with Crow skewing in their kinship terminology, but with some substantive differ-
ences in kin classification from their Hopi neighbors, and some ritual distinctions as well (Dozier 1954). Differences in kin term usage between eastern Tewa and Hano have been described in detail by several ethnographers (notably, Freire-Marreco 1914, Parsons 1932, Dozier 1955).

Societies of Pueblo size—with villages typically below 2,000 people, belonging to ethnolinguistic communities totaling no more than 10,000-15,000 in historic times—have generally been regarded within the anthropological literature as classically organized within the “kinship idiom.” In other words, comparative ethnology would lead us to expect kinship to be a primary organizing principle in all the Pueblos. So, the first question raised by the Western-Eastern contrast is why or how that is not the case among the Tanoans, especially the Tewa and Northern Tiwa. Secondly, anthropologists have drawn a general distinction between “kin-based” and “class-based” social systems. The decline of kinship institutions as the key axis of social organization in favor of governance by specialized associative groups may thus be indicative of an evolutionary transition toward more complex forms of organization. So, with their de-emphasis of kinship and with their social organization articulated by associative ritual groups, do the Eastern Pueblos express some such transition on a scale of increasing societal complexity? Such questions in the Pueblo context thus resonate with broader issues in comparative analysis of the history and evolution of human social organization.

Explanations of the kinship-pluralist vs. ritual-dualist Pueblo continuum vary. Fred Eggan (1950) argued for an underlying Crow-matrilineal pan-Pueblo kinship system that had receded over time in the east owing to Spanish colonial influence.” In an opposing view, Robin Fox (1967, 1972, 1994) saw eastern Keresan kinship as incipiently Crow, with an Iroquois or even Dravidian (see below) base, that was still reflected, he argued, in the system of patrimoieties. Given that Eastern Pueblo moieties are primarily ritual not kinship groups, however, and that kinship organization among the Tewa pueblos was weakly articulating, Alfonso Ortiz (1969), a native of Ohkay Owingeh (a.k.a. San Juan Pueblo), called for a new approach. Ortiz argued that Tewa social structure, and especially its seasonally alternating dualist pattern, could only be explained by focusing on the operation of ritual sodalities, not on kinship institutions. Recently, archaeologist John Ware (2014) has concluded that the kinship vs. ritual opposition that characterizes the West-East polarity is a deep-historical Puebloan structural tendency.

Towards a Proposed Solution
The prevailing kinship models that still condition analyses of Pueblo social organization, were couched in “descent theory,” (i.e., of the type associated with A.R. Radcliffe-Brown and other structural-functionalists), the predominant approach of the 1930’s-1960’s that focused on social organization construed as dominated by corporate unilineal descent groups. Against this, and almost wholly ignored in analyses of Pueblo social systems, Claude Lévi-Strauss (1969) shifted the theoretical focus in kinship analysis from descent toward marriage, and the exchange structures that marriage both embodies and motivates in social processes. Lévi-Strauss argued there were two general types of marriage systems among human societies, “elementary” and “complex.” An elementary system is defined
as prescriptive: it tells you whom (not necessarily as a specific individual, but as a category of person) you must marry. A complex system tells you only whom you may not marry (typically a fairly narrow range of close kin). Moreover, in speaking of marriage alliance, Lévi-Strauss pointed toward the essential engine of social reproduction and integration among many human societies: especially in small-scale societies with elementary systems, marriage was the main force through which constitutive social groups achieved mutual solidarity and overall societal cohesion.

Kinship terminologies, Lévi-Strauss held, not only categorized relatives but were intrinsically indicative of marriage rules. Indeed, classificatory terminologies resting upon a distinction between parallel and cross relatives—as Lowie (1915) had argued much earlier—typically express a rule of marriageability: cross kin (those related to me through primary cross-sex links, like a father’s sister’s child or a mother’s brother’s child) are marriageable; whereas parallel kin (so, a father’s brother’s child, or a mother’s sister’s child) are prohibited. Dravidian systems, a variant on Iroquois, specify marriageability by a term for opposite-sex “cross-cousin” that simultaneously means “spouse” or “person available to me as a potential spouse.” Terminologies of basic Dravidian type thus align directly with Lévi-Strauss’s elementary marriage alliance. And since these are “classificatory” systems in Morgan’s sense (encompassing all in the community, not just close genealogical relatives), all persons of my generation are divided into two opposing classes of approximately the same size: marriageable and unmarriageable. Moreover, these two marriage classes are often reflected by named exogamous moieties. So if I am born into Moiety A (say, the Raven moiety), I must marry a member of Moiety B (say, the Eagle moiety), and vice versa.” In the past, the Iroquois proper (i.e., the actual people, not the name of the kinship terminology derived from them) of Northeastern North America had such a system, with the two original moieties called Bear and Deer, to which other clan names were subsequently added (Morgan 1851:79); over time the strict moiety exogamy rule was lost, but persisted in practice into the recent past [see Trautmann and Whiteley 2012b). So if I am in the Bear moiety, all others of that moiety in my generation are my parallel cousins: we must all marry members of the Deer moiety, our cross-cousins. This is why Lévi-Strauss called this elementary system prescriptive: the category I must marry is “prescribed” by the operative structural rules themselves. Formally, this system is called “symmetric prescriptive” (figure 9a), meaning that there is symmetrical reciprocity between the two marriage classes or moieties: Group A marries Group B, Group B marries Group A, thus directly “exchanging” spouses with each other. “Complex” marriage rules, on the other hand, are only proscriptive, prohibiting marriage with a small range of kin, but silent as to which categories of person should be married.

Putatively “evolutionary” transitions from elementary symmetric-prescriptive systems can take several pathways (still following Lévi-Strauss’s argument; see also Trautmann and Whiteley 2012b). One, still within the “elementary” range, is toward an “asymmetric-prescriptive” type (figure 9b). Here the number of exogamous divisions is multiplied (four, labeled A-D, are shown in figure 9b), and the patterns of reciprocal exchange are distributively staggered. So in a society with an asymmetric-prescriptive system (like some classical cases on the Tibeto-Burmese Plateau), Group A gives its mem-
bers (of one gender) as spouses to Group B, B gives to C, C to D, and D gives to A, in a cycle of “indirect exchange.” Group D, as it were, “reciprocates” Group A’s gift to Group B, the total pattern uniting all Groups together through a staggered system of exchange obligations. Another pathway away from dual exchange of symmetric-prescriptive type is toward what Lévi-Strauss (1966, 1969) and Héritier (1981) term “semi-complex alliance” (figure 9c). Semi-complex alliance expands the number of groups that exchange spouses with each other, but not in the same predictable cycles as in asymmetric-prescriptive systems. Semi-complex alliance combines both prescriptive and proscriptive features, prohibiting marriage with a large sector of society, thus in effect “prescribing” a spouse from among the remaining sectors, but not specifying which particular sector that should be. Semi-complex alliance “disperses” marriage networks through a more variegated social
field than either a symmetric or asymmetric elementary prescriptive alliance system (figure 9), and thus represents an intermediate type between elementary and complex. Just as elementary marriage exchange aligns, generally speaking, with Dravidian (and in a less marked way Iroquois) kin-terminology, semi-complex systems—and here is the point of this theoretical excursion—align especially with Crow or Omaha terminology, the type (as Crow) that characterizes the Western Pueblos.

While symmetric and asymmetric marriage systems show repetitive patterns of continuous or cyclical exchange, semi-complex alliance, on the other hand, is characteristically “polynomial.” In Lévi-Strauss’s (1966) terms, involving many permutations of marriage combinations that shift generationally and famously resist statistical modeling. However, Héritier (1981) has shown that Samo (an Omaha system) semi-complex marriage combinations are not so open-ended as predicted by Lévi-Strauss’s abstract model,
exhibiting some restricted forms of exchange over several generations, comparably, then, to an elementary system.

In the same vein, my own recent analysis (Whiteley 2012:102-107) of marriages in the Third Mesa Hopi town of Orayvi shows that, notwithstanding the formal rules prohibiting marriages with the father’s clan and clan-set, actual marriage patterns show some significant similarities with Samo in this regard (figure 10). For Orayvi, there is a strong preference for clan-sets to repeat existing alliances from one generation to the next: a de facto pattern of dual exchange of symmetric-prescriptive type. But this preference co-occurs with another, to expand alliances to additional clan-sets, thus producing the pluralist element Lévi-Strauss sees as diagnostic of the semi-complex type. So for the 19 or 20 total marriages recorded for Orayvi’s Bear clan (of set II) from 1830-1900, eight or nine were with clan-set VI, whereas the other eleven were with six of the remaining seven clan-sets. Roughly 45% of these marriages were thus elementary in type, while 55% were semi-complex. These contradictory—or perhaps complementary—social patterns conform significantly with Robert McKinley’s (1971a, 1971b) interpretation of Crow-Omaha kinship systems. McKinley argued that Crow-Omaha semi-complex systems are characterized by competing alliance tendencies: on the one hand, to try to preserve and repeat the same alliances (between clan-sets II and VI in the case at hand) from one generation to the next, and, on the other, to expand beyond those into a larger pool of alliances (so for clan-set II, with clan-sets I, III, IV, V, VII, VIII, and IX [though there were no actual marriages with clan-set IX for the period in question]).

![Figure 11: Basic Iroquois/Dravidian crossness in G₀ (Ego's generation) and G₊¹ (Ego's parents' generation: same colors indicate the same kin-terms [gender-differentiated]; different colors indicate different kin-terms [ditto]).](image)

**Crossness and Crow Semi-complex Systems**

Recent comparative investigations of Crow and Omaha kinship systems (Trautmann and Whiteley, eds., 2012) highlight their basis in an underlying “crossness” of Dravidian or Iroquois type (i.e., the condition in which all relatives are divided into either “parallel” or “cross” categories, as described above). Crossness, Morgan’s discovery (Trautmann
1987), is the key to Iroquois and Dravidian systems (Figure 11), and appears always associated with marriage exchange rules and/or practices (Viveiros de Castro 1998).

Figure 12 shows an underlying similarity of kin classifications among Dravidian, Iroquois, Crow, and Omaha, with a common basic pattern of parallel and cross distinctions among opposite-sex relations of the same generation. The only differences between Iroquois and Dravidian terminologies in this regard (there are others [see, e.g., Trautmann and Barnes 1998] but these are of no concern here) is the semantic equation of cross-cousin with spouse/potential spouse. To this basic pattern, as noted above, Crow and Omaha terminologies split the cross-cousin categories into two and skew their application generationally. Empirically, Crow, Omaha, and Iroquois features often appear as alternate realizations among closely related and geographically proximate societies (for this pattern among Central Algonquians, see Trautmann and Barnes 1998). This pattern is especially noticeable among the Gê of eastern Amazonia, as argued by Marcela Coelho de Souza (2012), where neighboring societies with cognate kin-terms produce variant terminological structures of the three types noted. Dual organization, a common feature of Gê societies like Kayapó and Shavante, may appear in the form of exogamous moieties aligned with Dravidian kin-terminology, or be configured only by non-kinship-based ritual moieties reminiscent of Eastern Pueblo dualism. Closely related and geographically proximate Gê societies, like the Timbira, exhibit Crow skewing in kin-terminology associated with semi-complex patterns of alliance—reminiscent of the pluralist, polynomial type characteristic of the Western Pueblos.

Seen in this light, and with the benefit of cross-cultural comparisons (Trautmann and Whiteley, eds., 2012), Crow-Omaha kinship systems appear as variations on an Iroquois and ultimately Dravidian theme. Thus crossness lies also in the deep structure of

**Figure 12:** Crow and Omaha kinship terminologies as variants on Iroquois and Dravidian (partly after Driver and Massey 1957:diagram 12).
Crow-Omaha systems—a feature reflected in the extensive pattern of de facto dual exchange marriages at Orayvi. Felicitously, this coincides with Robin Fox’s (1967) analysis of eastern Keresan kinship and marriage patterns. Keresan moieties, Fox argued, while in recent historic times only ritual organizations, were once exogamous, with prescriptive cross-cousin marriage, a factor still displayed in preferences at (Keresan) Cochiti for a form of elementary marriage exchanges. Moreover, not only do marriage practices among the Hopi exhibit some dual exchange patterns, both Zuni and Laguna (Western Keresan), as analyzed by Parsons (1932), show a preference for (classificatory) cross-cousin marriage. Of great interest is Parsons’ (1932:384) note that, “At Laguna I was told explicitly that to use the reciprocal of father’s sister’s daughter or mother’s brother’s son was tantamount to using a wife-husband term”—in effect, the Dravidian semantic equation of a cross-cousin with a spouse.

**Tanoan Crossness**

So far, so good. The patterns identified would seem to demonstrate that the more pluralist Western Pueblo systems show strong signs of co-occurring dual organization in marriage practices. What about the supposedly Eskimo-bilateral Tanoans? Hano and Rio Grande Tewa kinship terms display some differences in their respective designations of kintype categories (e.g., Harrington 1912, Parsons 1932, Dozier 1955). Hano kin terms feature Crow skewing—hence in part why Freire-Marreco (1914) argued they represent an earlier expression of Tewa kinship correlated with matrilineal descent, that was carried over to First Mesa when the Hano-Tewas migrated from the Rio Grande. However, Eggan (1950) and Dozier (1955) argued that applications of Tewa kin-terms were modified over time at Hano, and had acquired Crow skewing as a result of extended interaction with their Hopi hosts and adjustment of their marriage system to (what we now call) the semi-complex type. Extensive intermarriages between Hano-Tewas and First Mesa Hopis must have influenced the kin-terminology of the former, whether or not it was Crow in form prior to the migration. Freire-Marreco (1914:269-70), who studied both eastern Tewa and Hano kinship, emphasized that Tewa kinship terms “belong to a clan system,” i.e., a system configured by unilineal descent of the Hopi type. Some Spanish features are clearly present in New Mexico Tewa and Tiwa kin terminologies, including terms derived from loanwords primo (cousin) and comadre (godmother) (see de Angulo 1925, Trager 1943), and it is historically clear that the Franciscan church had an impact on Rio Grande Pueblo kinship and marriage (e.g., Dozier 1970, Gutiérrez 1991). The marked incidence of descriptive kin-term usage among the Rio Grande Tewa, emphasized by both Harrington (1912) and Freire-Marreco (1914), is, as noted, exceptional not only for the Southwest but for all of Native North America. From her comparison with Hano-Tewa, Freire-Marreco (1914:270) concluded that the descriptive patterns in eastern Tewa kin terminologies resulted from acculturation to Spanish norms.

If we are to consider whether Puebloan kinship systems may be variations on a theme—of the type described Coelho de Souza for the Gê—rather than genuinely disjunct types of distinct origins, the key question, notwithstanding possible historical changes, concerns whether there is evidence of underlying crossness throughout these
systems. In other words, if Crow kin-terminology has its basis in Dravidian/Iroquois crossness, then, notwithstanding historically bilateral descent and Eskimo-descriptive terminology among the Rio Grande Tanoans, we might still be able to identify traces of crossness in their kin-terms. And if so, the Rio Grande Tanoan kin-terms described by the early 20th century ethnographers more likely do result from historical acculturation toward Spanish kin-term categories, rather than representing a pre-colonial form.

The minimal definition of a terminology with crossness is revealed by Morgan’s sentiment that, among the Seneca Iroquois, a father’s brother is “equally a father,” and a mother’s sister “equally a mother” (Trautmann and Whiteley 2012a:1). Stated algebraically, these minimal equations for identifying crossness are: $M=MZ \neq FZ$ (mother and mother’s sister are classed together with the same term, but father’s sister is distinguished by a separate term), and $F=FB \neq MB$ (father and father’s brother are classed together with the same term, but mother’s brother is distinguished by a separate term). (The following passage is abbreviated from a more comprehensive comparison of Hano and Rio Grande Tewa kin-terms developed elsewhere [Whiteley n.d.]). Parsons indicated the presence of such basic crossness in all Pueblo kin-terminologies:

Throughout [all] the [Pueblo] tribes, direct and collateral kin are classified together, and maternal and paternal lines are distinguished; to use Lowie’s term, we have the forked merging [a.k.a. “bifurcate-merging” or Dravidian/Iroquois] type of classification which is associated with clanship (Parsons 1932:79).

Parsons noted some exceptions, but the only cases (Keresan Cochiti and Tiwa Taos) she recorded as not distinguishing maternal and paternal uncles are partial exceptions, thus the minimal crossness equation $F=FB \neq MB$ is hinted at here. Even at Taos, the most apparently Eskimo system of all Pueblo terminologies, and lacking in unilineal descent: “there is the same term for father’s sister and for mother’s sister, although the aunt term appears to be applied more distinctively to father’s sister” (Parsons 1932:381, emphasis added)—again suggesting the trace of crossness of $M=MZ \neq FZ$ type. Moreover, the Hano kin term $mæmæ$ (Freire-Marreco 1914:274) includes the Crow skewing equation $MB=MZS$ (mother’s brother and mother’s sister’s son are classed together with the same term). Its Rio Grande Tewa cognate $mæ'æmæ$ (Harrington 1912:488) designates both a male first cousin and a “cousin twice removed.” Cognate northern Tiwa $mimi$ at Taos means “uncle,” but “cousin” at Picuris; Trager (1943:569) infers its original meaning was (cross-)uncle, and that at Picuris it was shifted down a generation—suggesting a process similar to skewing. Moreover, if we compare these Tanoan cases with Kiowa—the only non-Pueblo representative of the Kiowa-Tanoan family—Kiowa kin-terms exhibit clear indications of crossness in the generation levels above and below Ego, and a cross-cousin marriage rule typical of Dravidian systems (Lowie 1923).

Conclusion

My conclusion leans toward affirming the argument by Freire-Marreco that the eastern Pueblo kinship systems were significantly changed by European colonization and imposed Catholic models of familiality. It seems probable that the highly descriptive elements in Rio Grande Tewa terminologies resulted from interaction with European bilater-
al systems. To be sure, prehispanic Eastern and Western Pueblo systems probably exhibited variations, but I suggest that there were fundamental similarities in an underlying pattern of kin-term crossness and its implication of a cross-cousin marriage rule. Further, traces of these patterns appear to persist in attenuated form even in the least “bifurcate-merging” cases among the Pueblos, namely the terminologies at Taos and among the Rio Grande Tewa. Moreover insofar as Crow terminology rests upon underlying Dravidian/Iroquois crossness, that dualist structure provides the substrate for the Western Pueblo Crow-plural systems, as shown by the high incidence of classificatory cross-cousin marriage (prohibited by the formal marriage rules) between two exchanging clan-sets at Orayvi. A dualist system based on Dravidian/Iroquois crossness, I suggest, goes far back into the Puebloan past. It seems to me more probable that Rio Grande ritual moieties were originally based on exogamous kinship-based moieties, as Fox (1967) once argued for the Keresans, rather than emerging ex vacuo, particularly since there are some resid-ual signs of crossness in even the most descriptive Rio Grande kinship terminologies.

Given these factors, both the known and the inferred, the standard division between Western and Eastern Pueblo social structures as oriented more towards a kinship-based plural type vs. a ritually-based dual type looks less significant. It seems likely that forms of kinship dualism evident in kin-terminology crossness and classificatory cross-cousin marriage among the Western Pueblos (within a Crow semi-complex structural armature), and suggested as formerly present by echoes of persisting crossness in Rio Grande Tanoan kin-term meanings, were important articulating factors among all types of Pueblo social organization. The analytical distinction favoring associative ritual groups as the articulating points of social structure in the East and de-emphasizing their significance in the West also seems too sharp. I suggest there are both dual and plural organizational principles among all the Pueblos, receiving different emphases in different contexts, and configured via both kinship and ritual at different times and places in the historic and prehistoric past. I conclude that Crow and Iroquois terminologies, as surface-structure variations on a deep-structural pattern articulating social groups and marriage-able categories via the axis of crossness, probably underlie all Pueblo social structures.
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