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Predicate nominal and transitive verbal expressions of interpersonal relations¹

JONATHAN D. AMITH and THOMAS C. SMITH-STARK

Abstract

Languages can potentially make use of two types of constructions, predicate nominal or transitive verbal, to express kinship relations between two individuals. These two types may coexist in a given language as either virtually interchangeable or semantically distinct alternatives. In several North American languages the two types have become conflated into a single split paradigm. The characteristics of these split systems are sufficiently parallel cross-linguistically to suggest that they are the result, in part at least, of general properties that constrain or influence linguistic structure. We claim that this variation in morphosyntax responds to two factors: an underlying tension in possessive relations, which can be naturally given or socially mediated; and the relative pragmatic or propositional orientation of transitive verbal versus predicate nominal constructions. Additionally, we show that the way split paradigms develop may result from the interaction of pragmatic and morphosyntactic facets of linguistic systems as communicative devices for conveying propositional content and achieving pragmatic goals.

Introduction

Languages in general can potentially make use of two types of constructions, predicate nominal or transitive verbal, to express kinship relations between two individuals. In section 1 we describe the basic characteristics of these two construction types. A given language may exclusively employ either one or the other construction. We use English to exemplify languages in which the predicate nominal construction dominates. Languages of the Yuman family illustrate those that utilize solely the transitive verbal pattern. There are also languages, such as Hopi, in which the two constructions coexist in essentially free variation.

In section 2 we note that in certain languages both constructions exist but that they either contrast in meaning (Huichol) or have become conflated into a single split paradigm (Chinook). There are also languages with an incompletely realized tendency toward a split paradigm. Cahuilla, like Huichol, shows a certain degree of pragmatic and semantic contrast between the predicate nominal and transitive verbal constructions. The Nahuatl of a few villages in central Guerrero permits a very limited degree of free variation between the two constructions, which are, however, for the most part in complementary distribution. Finally, a different type of split is illustrated by Iroquoian languages, in which a generational hierarchy produces a split in the transitive verbal construction, the only one permitted in these languages.

The explanations that have heretofore been offered to explain the types of splits we document in section 2 have been based on a lexico-semantic naturalness hierarchy (cf. Seiler 1982a for Cahuilla) or on language-particular morphosyntactic facts (cf. Silverstein 1976 for Chinook). We feel that these are only partial explanations for a complex phenomenon. In section 3 we propose two additional considerations that influence this variation in morphosyntactic encoding: an underlying tension in kinship and certain other interpersonal or possessive relations, which can be naturally given or socially mediated; and the relative pragmatic or propositional orientation of transitive verbal versus predicate nominal constructions.

Finally, in section 4 we claim that to understand any particular split paradigm it is important to consider the interaction of pragmatic and morphosyntactic facets of linguistic systems as communicative devices for conveying propositional content and achieving pragmatic goals. We illustrate this claim by analyzing the development of a split paradigm in Nahuatl, which is the result of the operation of particular morphosyntactic aspects of this language in the aftermath of the collapse of a system that had semantically distinguished between the predicate nominal and transitive verbal constructions.

1. Predicate nominal and transitive verbal construction types

It is possible to recognize two fundamentally distinct ways in which languages can encode two-place kinship relations such as that expressed in the following English sentence (1):

- (1) Jack is Hermenegilda's father.

In many, probably most, languages the only unmarked way of encoding

the relations illustrated in (1) is through a possessed predicate nominal (P-N) construction in which the subject is EQUATED WITH the predicate noun. Such is the case, for example, in English.

Notice that in English some kin terms may function as verbs (2a) or be verbalized (2b). Such terms seem to be those most heavily laden with expectations of normative behavior. As transitive verbs, however, often these terms do not refer to the relation itself, but rather to the social behavior that is associated with the kinship relation.

- (2) a. I hate it when nurses mother me.
b. Our dog bemothered the Canadian goose that crashed into the window.

There are, however, languages in which constructions with transitive verbal (T-V) properties either are preferred or constitute a quite common means for expressing kin relations, and in which a subject, rather than being equated with a predicate noun, is RELATED TO an object. All such languages that we have been able to document are Native North American languages.² In a few cases, such as Yuman and Iroquoian, transitive verbal morphosyntax is the only option available for expressing two-place kinship relations of the type illustrated in (1).

For example, Langdon (1978) notes that in a number of Yuman languages,³ affixes marking person on verbs tend to show formal similarity to affixes marking possession on nouns. According to her, these resemblances are not accidental but rather are motivated by a certain level of semantic congruence between possession and transitive verbal relations. Indeed, as she notes, the Yuman evidence strongly supports a connection between possession and transitivity, a congruence that is most transparent in kinship terms. The verbal nature of kin terms is obvious in sentences in which a kin term may be inflected for tense-aspect and preceded by an object marker:

...not only is the kinterm a verb, it is a transitive verb, where the type of kin relationship is denoted by the stem, the subject is the possessor, and the object the possessed. Therefore, the notion of "my younger brother" is more exactly "I call him younger brother, I have him as a younger brother" rather than, as might be supposed from the evidence of languages like English "he is my younger brother, he is a younger brother to me." In Yuma (and, by extension, in other Yuman languages since they pattern similarly), THE FOCUS IS ON THE POSSESSOR'S ACTIVE IDENTIFICATION OF HIS RELATIONSHIP TO HIS KINSMAN, WHICH ELEGANTLY REFLECTS THE CULTURAL FACT THAT EACH KINSHIP RELATIONSHIP DEMANDS FROM THE INDIVIDUAL CERTAIN OBLIGATIONS TOWARD THE KINSMAN. THE EMPHASIS IS CLEARLY ON DUTY TOWARD THE OTHER RATHER THAN ON THE POSSESSOR'S POSITION

AS RECIPIENT OF THE REWARDS IMPLICIT IN THE RELATIONSHIP [emphasis added] (Langdon 1978: 35).

This observation, that the focus of the transitive verbal expression of kinship ties is on the subject's active identification of his relation to the object, highlights the interactive nature of the social demands and obligations concomitant with kin relations. It also points to the pragmatic orientation of transitive verbal, as opposed to predicate nominal, utterances, a point to which we return in section 3.

In Yuman, even apparently nominal uses of kin terms are simply the result of a process of syntactic nominalization; only context can distinguish between a verbal or nominal function of these terms. Thus *m-ašuc* 'your younger brother' is literally '(he whom) you call younger brother' or 'you call him younger brother' (cf. Langdon 1978: 34).

Some languages utilize both predicate nominal and transitive verbal constructions. This is the case with Hopi,⁴ in which P-N (cf. [3a] and [4a]) and T-V (cf. [3b] and [4b]) constructions are apparently in free variation; there is no obvious semantic or pragmatic difference in their use. Moreover, both can be used to express any kind of possessive relation.

- (3) a. um i- ngu -'u
2sgS 1sgPossr- MOTHER -pausal
'You are my mother.'⁵
- b. nu' ung yu -'y -ta
1sgS 2sgO MOTHER -Possd -Impf.sg
'You are my mother.'⁶
- (4) a. pam i- ki -'i
that(S) 1sgPossr- HOUSE -pausal
'This is my house.'
- b. nu' put ki -'y -ta
1sgS that(O) HOUSE -Possd -Impf.sg
'This is my house.'

The data we have presented thus far illustrate two basic morphosyntactic structures for expressing kinship relations between two individuals. The existence of a transitive verbal construction, in addition to the more widely attested predicate nominal form, is undoubtedly related to the fact that kinship relations, like transitive verbs, typically require the presence of two arguments. The semantic roles of these arguments, however, are not especially similar to the agent and patient roles of a prototypically transitive verb. For this reason, and in the absence of a standardized

terminology, we will use the following terms to discuss predicate nominal and transitive verbal encoding of two-place possessive predication:

Relator:

the lexical term that expresses the relationship between the two arguments.

Referent:

the argument that is identified with the relator.

Relatum:

the other argument.

For instance, in the above-cited English example (1), 'father' is the relator, 'Jack' is the referent, and 'Hermenegilda' is the relatum. In the Hopi example (3b) *yu* 'mother' is the relator, *ung* '2sgO' is the referent, and *nu* '1sgS' is the relatum.

These two construction types and the terminology we employ to discuss them are summarized in Table 1. These are, in fact, only ideal types since specific languages often deviate from them in some way. Notice that the transitive verbal construction seems to invert the roles of the arguments with respect to the typologically more common predicate nominal construction.⁷ Rather than marking the referent as subject and the relatum as possessor, the relatum is expressed as subject and the referent as object. For this reason, and given the greater frequency of the P-N type, the predicate nominal construction has at times been referred to as "direct," whereas the transitive verbal construction has been considered "inverse" (cf. Seiler 1982a). However, these terms imply the primacy of "direct" expressions and the derived status of "inverse" structures. In contrast, we prefer to emphasize that P-N and T-V constructions are two alternative and functionally distinct mechanisms for expressing different aspects of kinship relations. For us the defining characteristic of the two types of predication is not their "direct" or "inverse" nature, but rather their predicate nominal or transitive verbal character and the relation each establishes between the arguments involved: subject equated with relator

Table 1. *Ideal types of two-place kinship predicates*

Construction type	Nature of predicate	Morphological schema	Role expressed by subject	Role expressed by possessor/object
Predicate nominal	equational (=)	subject=[Possr+noun]	referent	relatum
Transitive verbal	relational (→)	[subject→object]verb	relatum	referent

in equational or predicate nominal expressions, and subject interactive with object in relational or transitive verbal expressions.

2. Split paradigms and semantic contrasts in predicate nominal and transitive verbal constructions

In the preceding section we have discussed the existence of two morpho-syntactic structures for expressing kin relations between two individuals. Most languages seem to use only the P-N pattern as the unmarked way to express such relations. A small minority of languages prefers the T-V construction, and Hopi is unusual in that it uses both constructions interchangeably. However, other languages with both P-N and T-V constructions tend to manifest a semantic contrast between these two forms and/or limitations on the use of one versus the other based on the person of the referent and relatum. In this section we describe five cases of semantic contrast and split paradigms: Huichol, Chinook, Cahuilla, Oapan Nahuatl, and Iroquoian.

2.1. *Huichol*⁸

Although Huichol employs only P-N structures with most possessive relationships, it utilizes both P-N ([5a] and [6a]) and T-V ([5b] and [6b]) constructions to encode at least some consanguineal, affinal, and other interpersonal relations.

- (5) a. pe- pi- ne- niwé
2sgS- As- 1sgPossr- DAUGHTER
'You are my daughter.'
- b. ne- matsi- niwé⁹
1sgS- 2sgO- DAUGHTER
'I have you as a daughter.'
- (6) a. pe- pi- ne- ?iwá
2sg- As- 1sgPossr- BROTHER/FRIEND
'You are my brother/friend.'
- b. ne- matsi- ?iwá
1sgS- 2sgO- BROTHER/FRIEND
'I look upon you as my brother/friend.'

Transitive verbal forms ([5b] and [6b]) generally signal metaphoric extension of the connotative aspects of a natural or legally sanctioned relation. Thus, whereas (5a) is employed only with a real daughter, (5b)

can be employed both with a real or adopted daughter and with a child who is treated as such. A similar interpretation applies to (6a) and (6b). The first is unmarked and simply refers to a given relationship. However, (6b) is a marked usage employed to emphasize the social expectations concomitant with the brother relationship. When addressing a friend a similar situation holds. Example (6a) is employed with true friends. On the other hand, (6b) would be used by a speaker who wishes to assume the social role of friend for self-interested motives.

Another extended use of T-V forms is obvious with the relator stem *kema* 'brother-in-law' ([7a] and [7b]).

- (7) a. pe- pi- ne- kema
2sgS- As- 1sgPossr- BROTHER-IN-LAW
'You are my brother-in-law.'
- b. ne- matsi- kema
1sgS- 2sgO- BROTHER-IN-LAW
'I consider you my brother-in-law' (i.e. 'I like your sister').

In (7a) an established socially mediated relationship is encoded in a P-N construction. The T-V construction, literally something to the effect of 'I brother-in-law you', is utilized in a joking manner to express an interest in someone's sister.

Alternate P-N and T-V structures with the affinal term 'wife' are also possible ([8a] and [8b]).

- (8) a. pe- pi- ne- ?iya
2sgS- As- 1sgPossr- WIFE
'You are my wife.'
- b. ne- p- i- ?iya
2sgS- As- 3sgO- WIFE
'I consider her my wife' (i.e. 'She's my lady').

With this relator stem the T-V construction implies that the referent is a potential sexual partner. As such, it is considered offensive to use this T-V construction in directly addressing a woman, particularly one's own wife. For this reason (9) is rejected as inappropriate.

- (9) ne- matsi- ?iya
1sgS- 2sgO- WIFE
'I consider you my wife' (NOT APPROPRIATE).

Thus, although the T-V structures seem to be grammatically acceptable in all person combinations of referent and relatum, certain combinations may be avoided in speech depending upon the implications of the metaphoric usage of the relator.

Another limitation on person combinations may be attributable to possible performative aspects of T-V structures. Thus, while (10a) with a first person subject and second person object is acceptable though marked, the corresponding form with a second person subject and first person object (10b), which insinuates motives to the addressee, is considered inappropriate by at least some speakers.

- (10) a. ne- matsi-*ʔiwá*
1sgS- 2sgO- BROTHER/FRIEND
'I look upon you as my brother/friend.'
- b. pe- netsi -*ʔiwá*
2sgS- 1sgO -BROTHER/FRIEND
'You look upon me as your brother/friend' (NOT APPROPRIATE).

In Huichol P-N constructions are always acceptable. In contrast, the acceptability of T-V constructions is sensitive to a variety of pragmatic factors.

Finally, note that the Huichol relator stems in some ways behave like verbs.¹⁰ In addition to taking subject and object markers, they can be directly inflected for tense-aspect, as is illustrated in (11).

- (11) ne- matsi- kema- ni
1sgS- 2sgO- BROTHER-IN-LAW -Fut
'You're going to be my brother-in-law.'

The direct inflection of kinship stems for tense-aspect in T-V constructions contrasts with the usual behavior of nominal stems, including those that are possessed, which require the verbalizing suffix *-ti* before they can take such inflection in copular predicates ([12]).

- (12) pe- pi- ne- yéu -ti -kai
2sgS- As-1sgPossr- FATHER -Vbzs -Impf
'You were my father.'

2.2. Chinook¹¹

Chinook uses both equational and relational morphosyntax for all possessive constructions, including those that express kinship relations. Like Hopi, and unlike Huichol, there is no semantic difference between the two types. However, unlike both of these languages, Chinook manifests a split paradigm in which the two structures are in total complementary distribution based on the person of the referent.

The Chinook pronominal system manifests three basic pronominal

case markings: ergative, absolutive, and genitive. The ergative pronouns (nominative shape + *k*) are used to mark transitive agents (A); the absolutives (nominative) signal intransitive subjects (S) and transitive direct (O) and indirect (D) objects; and the genitives (nominative shape + *a*) express possessors. In the third person, absolutives distinguish between an intransitive subject form and a transitive object form.

Chinook prohibits the occurrence of first or second person O with any D. However, when a sequence of two absolutives expresses S-D of intransitives (as in Silverstein's [1976] examples [37]–[40]: e.g. 'We go toward him') no person restriction applies. Thus, it is clear that the restriction is based on the grammatical function of the absolutive and not on the simple morphology of the elements involved. The semantic basis of the prohibition of first and second O with any D is implied by its application to third person objects when they are animate (Silverstein 1976: 136). This suggests that the basis for the first and second person restriction is, at least at some level, understood by Chinook speakers as prohibiting an animate O from cooccurring with D.

A further relevant fact about Chinook is that certain "apparent" intransitives are analyzed by Silverstein as what he calls "inverse transitives." These are marked by a morphological O-'D' sequence (object-dativized agent). However, in these constructions, if O is first or second person, the verbal structure becomes transitive, a process referred to as "thematization" by Silverstein. The dativized agent surfaces as a transitive subject and the object continues to be expressed as such.¹² The major differences between intransitives and (intransitive) inverse transitives are (1) intransitives show S-D case marking whereas inverse transitives show O-'D' case marking; and (2) inverse transitives show a dativized agent 'D' that can surface as A, whereas true intransitives contain simple datives.¹³

Now consider an example of a Chinook possessive construction in (13).

- (13) a- i-a- knim
3sgfemAbs- 3sgmasc-G- CANOE
O G/'D' Stem
'It is his canoe.'

Notice that the absolutive case marker represents not S but rather O.¹⁴ Basing himself on this analogy with inverse transitive constructions, Silverstein posits that the genitive in possessive constructions is functionally a dativized agent, that is, that the morphological O-G schema of the possessive constructions is equivalent to the O-'D' schema of inverse transitives.

Another similarity between Chinook inverse transitives and possessives

is that possessives are "thematized" when the object/referent is first or second person. For obvious reasons, the relator in these cases will almost always encode an interpersonal relation. The genitive/dativized agent is realized as A, although the genitive marker *-a-* remains,¹⁵ and the object/referent continues to be marked as O. Thus the unacceptable (14a) is "thematized" as (14b).

- (14) a. *n- šta- xan
 1sgAbs- 3duG- CHILD
 O G/'D' Stem
- b. štk- n- a-xan
 3duErg- 1sgAbs- G-CHILD
 A O G Stem
 'I am their (du) child.'

The Chinook prohibition of first or second person O cooccurring in the same bitransitive verb with D is "natural" and, as Silverstein notes, a common restriction in many languages. The motivation for the use of absolutive O rather than S in both inverse transitives and possessives is more problematical, but the use of O suggests a transitive verbal element in Chinook possessive expressions.

The Chinook system is summarized in Table 2. As is apparent from this table, both Chinook constructions are verbal, the first because it has an agent object schema, and the second because it uses an object marker for the referent, a marker normally associated with transitivity. Nevertheless, the equational construction does express the relatum as a possessor, which we interpret to mean that it is somewhat less verbal (and more nominal) than the relational construction.

2.3. *Cahuilla*¹⁶

Cahuilla conflates equational and relational constructions in such a way as to approximate a split paradigm. However, it also maintains some

Table 2. Summary of Chinook possessive constructions

Person of referent	Morphology of		Construction schema	Nature of predicate
	referent	relatum		
1,2	O	A	A O -a relator	relational
3	O	G	O G -a relator	equational

degree of semantic and pragmatic contrast between these two types of predication.

Cahuilla utilizes a T-V construction, which, however, does not have all the properties of a canonical transitive verb, in expressions that Seiler glosses as "inverse" or "establishing."¹⁷ The T-V construction contrasts with a P-N construction, which he labels "direct" or "inherent." Cahuilla "inverse" structures are not limited to kinship and other relations among humans but rather can refer to relations between a human possessor and body parts or, in certain cases, artifacts produced by the referent. Notice that in many languages these last two possessed types are grouped with kin terms as items inalienably or inherently possessed.

Cahuilla has three sets of pronominal prefixes, "P1," "P2," and "Object," which normally function as shown in (15):

- (15) P1 = subject of verbs and nominal possessor
 P2 = subject of predicate nouns
 O = object of verbs

In the unmarked "direct" possessive constructions the subject (referent) is marked, as expected, by the "P2" pronouns and the possessor (relatum) by the "P1" marker, as in (16).

- (16) ?et- ne- nési
 2sgP2- 1sgP1- NIECE
 'Thou art my niece.'

However, in "inverse" constructions the relatum is signaled by the "P2" morpheme and the referent by the object marker, as in (17).

- (17) ?e- hen- nési- k(a)(t)
 2sgO- 1sgP2- NIECE- OrRel
 'I am one who is related to you, the niece' or 'I am your aunt.'

In neither case does a Cahuilla two-place relator predicate use a fully transitive (i.e. "O+P1") prefix schema. Rather, "direct" structures occur with the "P2+P1" prefixes whereas "inverse" structures utilize "O+P2" prefixes.

Note, moreover, that in "inverse" expressions the noun stem (relator) is followed by the suffix *-k(a)(t)*, which also occurs in nominalized verbs, where it signifies an "inceptive" action. Seiler interprets Cahuilla "inverse" expressions as nominal, since they employ both "P2" prefixes (normally restricted to predicate nouns) and noun-specific plural markers. However, the presence of the *-k(a)(t)* suffix suggests that these "inverse" expressions are basically nominalized verbs. This interpretation would explain the presence of the "Object" prefix.

Significantly, Seiler points out the pragmatic concomitants of each of the two types of predication, noting that the motivation for using "inverse" or "direct" expressions in any given combination of relatum and referent often depends on discourse pragmatics. A decision to use "inverse" or "establishing" expressions, Seiler states, might occur when the topic/subject is deceased and the speaker wishes to avoid mentioning the kinship term that directly relates the deceased person to the relatum. Thus a Cahuilla speaker might use 'She is related to her, the niece' rather than the corresponding "direct" expression 'She is her aunt' (cf. examples [16] and [17]) when the aunt has died.

Moreover, "direct" expressions tend to be employed when the possessive relation is inherent, and "inverse" expressions when the relationship is not taken for granted but instead needs to be specifically established. For Seiler, the degree of inherentness in a relation is not, however, a simple reflection of the nature of the relation being commented upon (e.g. whether it is alienable or inalienable) but is closely related to a lexico-semantic naturalness hierarchy that distinguishes those entities most likely to function as relatum (which he calls the "possessor"), those closest to Ego, and those most likely to function as referent (which he calls "possessum"), those furthest from Ego:

The direct type is chosen when the person of the POSSESSOR is nearer to the speaker than to the person of the POSSESSUM. This is the "natural," the expected instance. It has to be chosen when the POSSESSOR is identical with the speaker, i.e. 1st person. The inverse type is chosen when the person of the POSSESSUM is nearer to the speaker than the person of the POSSESSOR. It has to be chosen when the POSSESSUM is identical with the speaker, i.e. 1st person. When both persons are third, the Cahuilla has the choice of presenting either the POSSESSOR or the POSSESSUM as being near to him and of respectively "obviating" as it were, or backgrounding, either the POSSESSUM or the POSSESSOR (Seiler 1983: 24).

According to Seiler, then, the utilization of "direct" vs. "inverse" predication, depends both on factors related to discourse pragmatics and upon a lexico-semantic naturalness hierarchy that distinguishes those entities most likely to function as possessor (those closest to Ego) and those most likely to function as possessum (those furthest from Ego). Table 3 summarizes the relative frequency of "direct" versus "indirect" structures in Cahuilla.

As can be seen in the table, it is this preference for one construction rather than the other, according to the relative person of referent and relatum, that produces a virtually split paradigm.

Table 3. Relative frequency of "direct" (= P-N) and "inverse" (= T-V) possessive predicates in Cahuilla

"Possessum" (=referent)	"Possessor" (=relatum)	Expression type
3	1	almost exclusively DIRECT
2	1	mostly DIRECT
3	2	preferably DIRECT
3	3	DIRECT and INVERSE
1	2	preferably INVERSE
2	3	mostly INVERSE
1	3	only INVERSE

Source: Seiler (1982a).

2.4. *Oupan Nahuatl*

The Nahuatl data we present is limited to a small group of approximately 12 historically related villages in central Guerrero, Mexico.¹⁸ In this region two-place kinship relations are encoded by both P-N and T-V structures. In the P-N construction the referent is cross-referenced by a subject prefix and the relatum is referenced by a possessive prefix, as in (18).

(18) néwa Ø- no- kóne:- w
 1sgIP 3sgS- 1sgPossr- CHILD- Possd
 'She is my child.'

The T-V construction, on the other hand, marks the referent with an object prefix and the relatum with a subject prefix. The relator has the same shape as when it is a singular possessed noun. For example, when the relator is vowel-final it is followed by a singular possessed suffix otherwise only found with possessed nouns, as in (19).

(19) ti- ne:č- kone:- w
 2sgS- 1sgO- CHILD- Possd¹⁹
 'I am your child.'

There is no semantic difference between the two constructions, which are distributed in a pattern that approaches a split paradigm. The equational form is obligatorily employed when the referent is third person ([18]) or when the relatum is cross-referenced by the indefinite pronoun *te*:- 'someone' ([20]).

(20) ni- te:- kone:- w
 1sgS- IndefPossr- CHILD- Possd
 'I am someone else's child.'

When the referent is first or second person and the relatum is third person (but not indefinite) the T-V construction is always used ([19]). However, if referent and relatum are each either first or second person, both the T-V and the P-N forms are acceptable, although the latter construction rarely, if ever, occurs in spontaneous speech. Table 4 summarizes the distribution of the P-N and T-V constructions in Oapan Nahuatl.

The Oapan Nahuatl T-V construction is only transitive verbal in that it takes the subject and object markers found with transitive verbs. Otherwise, it does not behave like a canonical transitive verb. For example, it takes none of the other inflectional affixes normally associated with transitive verbs, such as tense/aspect or plural markers, directionals, or reflexives. Moreover, vowel-final relators are followed by the possessed noun suffix *-w*, which is used after possessed nouns but never after verbs. As a result all relator stems end in a consonant, whereas the present tense stem of verbs must end in a vowel. Finally, as we have argued elsewhere (Amith and Smith-Stark i.p.), although the referent is cross-referenced by the object prefix in T-V structures, it functions as the discourse topic. This function is normally associated with the subject, as is the case with P-N constructions.

2.5. Iroquoian²⁰

Several Iroquoian languages use transitive subject/object portmanteaus to express relatum and referent in two-place kinship relations.²¹ At times the subject refers to the referent and the object to the relatum, while at other times the subject refers to the relatum and the object to the referent. This produces a split paradigm to the extent that one expects a fixed association between subject and object on the one hand, and referent and relatum on the other. However, the Iroquoian languages are unique among the languages we have examined in that the factor that determines the split is the relative status of referent and relatum. In any expression of the form S+O-Relator, S must coreference the senior member of

Table 4. Type distribution of two-place relational predicates in Oapan Nahuatl

Referent	Relatum	Construction
1/2/3	indefinite	always predicate nominal
3	1/2	always predicate nominal
1/2	1/2	almost always transitive verbal
1/2	3	always transitive verbal

the relational pair. For this reason, if the relator refers to the senior member (for example 'father'), then the subject marker must be interpreted as being identified with the relator ([21a]). Likewise, if the relator refers to the junior member (for example 'child'), then the object marker must be interpreted as being identified with the relator ([21b]). Thus,

- (21) Morphological schema Referent Relatum
 a. S+O-FATHER S=father O=child
 b. S+O-CHILD O=child S=father

The (21b) example directly corresponds to our ideal T-V construction in that the referent is referenced by an object marker. On the other hand, (21a), while still verbal, is like our ideal equational type in that the referent is cross-referenced by a subject. Based on this difference we call expressions like the one in (21a) equational predicates and those like (21b) relational.

Consider some examples from Oneida. If the relation being expressed lexically is that of CHILD, then the subject will refer to the parent (relatum) and the object to the child (referent), since senior relatives outrank junior relatives ([22a], [22c]). However, if the relation being expressed lexically is that of FATHER, the situation is reversed: the subject still refers to the senior member of the relation, the parent, but the parent is now the referent, and the object, though still referring to the junior member of the relation, the child, is now relatum ([22b]).

- (22) a. hi- yáh -aʔ
 I→him- CHILD -Nsuf
 '(he is) my son' (literally, 'I child him').
 b. lak- e- ʔníh -aʔ
 he→me- epen- FATHER -Nsuf
 '(he is) my father' (literally, 'he fathers me').
 c. lak- yáh -aʔ
 he→me- CHILD -Nsuf
 '(he is) my father' (literally, 'he child me').

An interesting feature of Oneida is that the junior member of a relationship can only be referred to by using a relational construction, as in (22a). The senior member, however, can be referred to in either of two ways: directly, with an equational construction as in (22b), or indirectly, in terms of a junior member relator in a relational construction, as in (22c). Though morphologically distinct, these two ways of referring to the senior member of the relation are semantically equivalent and in complete free variation.

Although forms such as those in (22) are predicates morphologically,

they can be used either nominally or verbally, depending on discourse context. Syntactic meaning is not at all dependent on morphological structure, nor is there any overt nominalization process. For example, 'he cries' = 'he who cries'. Similarly, 'she₁ has her₂ as child' = 'she₁ who has her₂ as child' = 'her₂ mother' = 'she₂ whom she₁ has as child' = 'her₁ daughter'.

As already mentioned, to reference senior members of certain relational pairs, such as grandfather, grandmother, father, mother, and uncle, both relational and equational types of expressions are possible. However, to reference senior in-laws, step-relatives, and elder brothers, only the relational construction can be employed, utilizing the lexical term for the junior member ([23]).

- (23) a. hi- y- enhús -aʔ
 I→him- epen- CHILD-IN-LAW -Nsuf
 '(he is) my son-in-law' (lit. 'I child-in-law him').
- b. lak- w- enhús -aʔ
 he→me- epen- CHILD-IN-LAW -Nsuf
 '(he is) my father-in-law' (lit. 'he child-in-laws me').

This apparently reflects a lexical gap in Oneida terminology. That is, there is no lexical stem that refers to stepfather, stepmother, mother-in-law, father-in-law, etc. We suggest that this lexical gap can be explained pragmatically. If a social relation is created socially with no genetic component (for example, in-laws, step-relations, and slaves) then it is what Seiler has called an "establishing" relation. That is, it is not naturally given and must be socially established. Our pragmatic focus, which we present in section 3, holds that the social (as opposed to natural/genetic) base of a relation favors a relational expression. However, note that in Oneida, given that the subject must be the senior member, if the lexical term is also senior then the subject must be the referent. From a pragmatic perspective, this equational structure would be appropriate for natural, genetic, and inherent relations. But it would be less appropriate for socially constituted or mediated relations, or metaphoric extensions of natural relations. We suggest, therefore, that the lexical gap in Oneida, by which senior affinal and step-relations are only expressible through relational predications starting from the lexical term for the junior member, can be explained by specific morphosyntactic restrictions (that is, that subject must be senior) combined with the pragmatic tendency for socially mediated relations to be expressed through a relational predication. For Oneida, language-specific morphosyntax and the divergent pragmatic and propositional functions of equational vs. relational two-place predication may account for a significant lexical gap.²² In section 4

we demonstrate that the same two types of factors account for the split paradigm observed in central Guerrero Nahuatl.

2.6. Typological generalizations

Because the phenomena we are examining have not been adequately studied, there is a certain lack of relevant data. However, based on the evidence available we propose that suggestive cross-linguistic trends exist in how P-N and T-V structures can be employed to express kinship relations.

First of all, in those languages that use both types of constructions, kinship terms are always among those lexical items with which they can occur, whereas other possessive relations often accept only one type of structure. It would appear, then, that there is some special property of kin relations that facilitates contrasting morphosyntactic encoding. In section 3 we suggest that this property is precisely the fact that almost uniquely among possessive relations, kin relations are both naturally given and socially mediated.

Second, there seems to be something about the utilization of both T-V and P-N structures in the languages we have discussed that generates noncanonical forms:

1. Arguments in the T-V or P-N constructions often are not those expected in normal transitive verbs or predicate nouns, respectively. Thus, for example, in Cahuilla the T-V type uses a predicate nominal subject marker. In Chinook the equational construction utilizes a transitive object marker instead of the expected intransitive subject marker.
2. T-V structures occasionally do not accept all the inflection normally expected of transitive verbs. Such is the case in Nahuatl.
3. T-V structures may have morphological features normally associated with nouns, such as the possessed marker in Nahuatl and the nominalization marker in Cahuilla.
4. The relator stem in T-V constructions may not manifest the canonical shape ordinarily required of verbs. Such is the case in Nahuatl.
5. At times, the subject of transitive verbal constructions may refer to the referent, rather than to the relatum as expected in canonical T-V cases. Such is the case in Iroquoian languages like Oneida.

Finally, in the three languages that have split systems based on person (central Guerrero Nahuatl, Cahuilla, and Chinook), there is a certain degree of uniformity in the way the systems are split (cf. Table 5 below). Expressions with a third person referent and a first person relatum (such as 'he is my X') take the P-N construction, while expressions with a first

person referent and a third person relatum (such as 'I am his X') take the T-V construction. This seems to suggest that the underlying principle governing such split systems is a lexico-semantic person hierarchy. However, not all details of splits can be explained in this way. Nor can a lexico-semantic person hierarchy explain the contrastive use of P-N and T-V structures. In section 3, we argue that pragmatic features of linguistic communication must also be taken into consideration. In section 4, furthermore, we show that a simple argument based on a lexico-semantic hierarchy is incapable of explaining the complexities of the Nahuatl split system.

3. Toward a general explanation of predicate nominal and transitive verbal constructions in possessive predication

Up to this point we have shown that both predicate nominal and transitive verbal encoding of two-place possessive predicates exist as possibilities in natural language. We have also shown that in certain languages both possibilities are utilized and that kinship (and other interpersonal) relations constitute a semantic domain particularly prone to manifest both the P-N and T-V structures. We have been particularly interested in language systems that utilize both constructions, either with a corresponding semantic distinction between one and the other, or with a split paradigm. We feel that such systems offer a key to understanding both the specific properties of kin relations that seem to attract these dual structures, and the different meanings that one versus the other structure can convey.

Up to now we have focused on formal aspects of two-place predicates. Formal analysis does not, however, address the problem of how language, considered as a communicative device to signal pragmatic and social rather than simply referential meaning, manifests an interrelationship between discourse function and morphosyntactic structure. In the case of the type of data we deal with, to understand language structure and change we must be concerned with the intersection of two sets: the set of underlying relationships that constitute the domain of "possessive" constructions, and the set of morphosyntactic structures that are possible vehicles for the expression of different aspects of "possessive" meaning.

In this section we lay the groundwork for a discourse-oriented explanation of possessed noun morphosyntax. We begin by discussing the weakness of an explanation based solely on a hierarchy of lexical and semantic content (section 3.1). In view of these shortcomings we propose that kinship relations must be understood in terms of both their natural and

their social dimensions in order to properly understand the motivation for the two distinct morphosyntactic structures that are used to encode these relations (section 3.2). We then suggest that predicate nominal and transitive verbal morphosyntax are particularly suited to expressing these two facets of kin relations (section 3.3).

3.1. A critique of the naturalness hierarchy

The general pattern emerging from the data we have discussed is that kinship terms in particular, and terms of interpersonal relationship in general, lend themselves to two different types of expression related to processes of topicalization and underlying semantic structure: predicate nominal *Subject*=[*Poss*+*Noun* (*kin term*)] and transitive verbal [*Subject*→*Object*] *Verb* (*kin term*). Silverstein is the only linguist we know of who has addressed this point:

Kinship Noun stems, then, conceal a predicate schema of the type "A has/is-connected-to B"... coded within a Noun Phrase by inalienable possession, and the whole Noun Phrase has something of the properties of a grammatical nominalization of the underlying predicate form with an "Agentive" ("the one who [predicate]") or "Benefactive" ("the one to/for whom [predicate]") nominalization. When a single lexical Noun stem is used in a language for coding both of these possibilities of predicate perspective (called by kinship terminological semanticists "reciprocal relationships"), there is frequently an asymmetry of coding complexity into a DIRECT and unmarked form and an INVERSE and marked form. The direct form is presented as the expected inalienably possessed lexically headed Noun Phrase; the inverse is presented with a highly derived secondary nominalization of a quasi-verbalized form of predication; some languages show this asymmetry as a regular function of case-marking splits, as well. Observe also that languages sometimes extend part or all of the special characteristics of [+*kin*] coding to terms that code nonnotionally "kinship" relationships, other bipolar and reversible mutual relationships, such as trading partnership, etc. (Silverstein 1987: 144).

The fact that languages differ as to how they lexically code and syntactically express certain relations is in itself no more surprising than the fact that when English speakers say 'I like it' Spanish speakers say '*me gusta*' (literally 'it pleases to me'). Languages simply differ as to how they encode "reality." However, the facts become more interesting when we observe that there appears to be a tension between these alternatives (P-N and T-V structures), and that this tension recurs cross-linguistically in a specific semantic domain, namely kinship relations. In some languages, such as central Guerrero Nahuatl, Cahuilla, and Chinook, the

two alternatives coexist and interact under grammatically specifiable or influenced conditions. In the case of Cahuilla, Seiler (1982a) attempts to explain this interaction in terms of a lexico-semantic hierarchy of natural interaction analogous to that suggested by Silverstein (1976) in his study of split ergativity. This view is particularly appealing in that it permits linking of split possessive paradigms to other similar splits governed by person hierarchies, such as that between direct and inverse paradigms in Algonquian languages. Certainly, such hierarchies may be important factors motivating the choice of structures in some cases. However, there are several problems with the view that lexico-semantic naturalness alone can account for the distribution of the two types of two-place possessive predicates in languages with split paradigms.

The first problem is that investigators who cite such a naturalness hierarchy assume a given that, in fact, needs to be established. That is, to take as a reason a factor (naturalness) that is manifested only in the phenomenon that is being explained and has no independent confirmation is a methodologically weak procedure. At a basic level "naturalness" itself must be a topic for further analysis and not simply an explanation in and of itself. Specifically, there is no immediate reason why 'I am his' is less natural than 'he is mine'. Although a "naturalness" argument might be acceptable regarding a nonhuman relatum and a human possessum (i.e. 'it is mine' being more natural than 'I am its'), within the realm of kinship and social status relations in which all actors and undergoers are human, it is difficult to understand why certain combinations of referent and relatum should be considered more natural or inherent than others.²³

A second shortcoming of such an analysis is that it does not provide an answer to a very important question: when there is a contrast between predicate nominal/equational and transitive verbal/relational two-place predication (or between "natural" and "unnatural" argument structures), what is the semantic and pragmatic difference between one and the other form? In Chinook, equational and relational expressions are in complementary distribution and therefore may be considered semantically equivalent. In Cahuilla and Huichol, on the other hand, equational and relational predications contrast, and it is reasonable to assume that the SUBJECT prefix of equational expressions is not semantically or functionally equivalent to the same person OBJECT prefix of relational expressions, even though both refer to the referent. As far as we can see, an analysis in terms of a lexico-semantic hierarchy is incapable of shedding light on this semantic or pragmatic contrast.

A third difficulty is that according to the very same arguments of those who propose a lexico-semantic hierarchy to explain split paradigms, the

"inverse" (what we call T-V) form is just as "unnatural" as the "direct" (what we call P-N) one. For example, a form such as 'I am his mother' is deemed unnatural by Seiler in that a first person subject/possessum is possessed by a third person possessor. However, the "inverted" form 'He (is related) to me, the mother' or 'He (calls) me mother', etc., is equally "unnatural" in that it has a third person subject acting on a first person object. In many languages this second "unnatural" form is, to various degrees, passivized or inverted. Thus, in Tiwa cases of third person agent acting on first/second person patient are mandatorily passivized (cf. Siewierska 1984: 34-35). Clearly, "inversion" does not solve the problem of "unnaturalness" but merely shifts it to another level. The lexico-semantic argument, therefore, although useful in expressing a general tendency, is quite infelicitous in accounting for that tendency in a meaningful way.

Finally, we should note that the lexico-semantic naturalness hierarchy argument assumes that the "direct" relation is prior and underlyingly basic, and that it is "inverted" to avoid what is deemed an unnatural argument structure. This implies, at some level, a basic semantic equivalence of forms that we feel does not necessarily exist except perhaps in those languages in which P-N and T-V two-place predications are in strict complementary distribution or total free variation. Moreover, there appears to be no *a priori* reason to consider "direct" forms to be basic. As we argue, the most significant facet of the two types of predication is not their "directness" or "inverseness," but rather their predicate nominal or transitive verbal character.

In the two sections that follow, we suggest that the basis for the contrast between the predicate nominal and transitive verbal expression of kin relations is best understood by taking into account a combination of morphosyntactic, semantic, and pragmatic factors. We propose that P-N and T-V constructions are better understood by focusing on the grammatical expression, either predicate nominal (equational) or transitive verbal (relational), and on the distinct communicative function of each of these structures.

3.2. *The natural versus social dimensions of possession*

Kin relations exhibit a basic underlying tension between a primary natural/given/inalienable relation that can be simply commented on, and an associated social/established/alienable relation that must be socially instituted and sanctioned.²⁴ Kin relations, insofar as they include a genetic factor, tend to be static, natural, inherent, and inalienable. In this sense

they are suited for nominal expressions in which the subject is identified directly with the possessed predicate. However, these same relations also code a social component of normative reciprocity that represents not an intrinsic condition, but rather socially mediated processes. In this sense they are suited for verbal expressions in which the subject (as agent) is presented in an active relation with the object (as patient). Relational expressions explicitly highlight the relation between agent and patient, which in this manner becomes the center of the communicative process.

Moreover, this dual aspect of kin relations distinguishes them, in general, from other sorts of possessive relations. For example, body parts involve a natural relation between a whole (relatum) and part (relator) that is not socially mediated. Nor can the relationship be ended by any simple means (transfer or nonfulfillment). Social statuses (as well as affinal relationships) are culturally determined and often legally sanctioned relations of normative behavior. Unlike kin, these relations have no natural component. Object possession (or ownership) is a socially determined nonreciprocal relationship involving the rights of a relatum (prototypically human) over an artifact (prototypically inanimate). The "relatum" (i.e. owner) acquires rights over the object as against other persons.²⁵

Thus, morphosyntactic representation of possessive relations covers a range of cognitively distinct relations divided along these two major axes, nature/society and rights/duties. The division we propose is not simply a rearticulation of the traditional intrinsic/extrinsic or alienable/inalienable categorization of possession. The categories put forth here unveil the essential social component of possession and facilitate an understanding of the pragmatic aspect of discourse on this topic. Kin relations have a dual aspect that can focus on identity (natural) or reciprocity (social), and these two facets make them particularly susceptible to being encoded either predicate nominally, which identifies the subject with the predicate, or transitive verbally, which focuses on the interaction of subject with object.

3.3. *Pragmatic and propositional facets of two-place predication*

As we pointed out in section 2.6, in languages with both T-V and P-N constructions kin terms are always among those semantic domains in which these two structures can be used. We propose that this reflects the fact that with human participants (referents and relata), a potential contrast between forms with specific pragmatic value (T-V), and those with simple propositional value (P-N) could be functionally useful.

Human actors can be influenced by discourse; therefore it is not unreasonable that specific communicative devices develop that affect the responses of participants in a speech act.

The pragmatic character of transitive verbal possessives is exemplified by the Huichol and Cahuilla data. In Huichol, T-V constructions can function in a variety of pragmatic ways such as reminding someone of the obligations associated with a social relation ([5b] and [6b]), or jokingly commenting on a nonexistent relationship ([7b] and [8b]). Moreover, the performative potential of T-V structures is suggested by the fact that first person subjects are favored in some relational expressions. In Cahuilla, Seiler glosses transitive verbal expressions as "establishing."²⁶ This evidences his understanding of the pragmatic orientation of such phrases. Even in languages that do not have a T-V construction, verbs derived from kinterms (cf. [2]) or syntactic phrasal constructions (cf. [24]) exist. Moreover, it appears to be precisely these forms, and not P-N constructions, that are used to express the more pragmatic, socially determined, or marked aspects of kin relations.

- (24) a. I take thee as my wife.
b. He treats me like a brother.

At one level, then, the pragmatic orientation of discourse on possession is directly related to the nature of the relation being discussed. Purely natural relations, such as possession of body parts, offer little room for pragmatic discourse. Statements about possession of an object may, on the other hand, either be strictly oriented to propositional communication, or have an underlying illocutionary force. Thus 'it is your house' may be referential; it may also attempt to influence the subsequent actions of addressee. An utterance such as 'it is his house' is significantly more oriented to reference, although, of course, it still may affect action. Explicit comments on relations characterized by reciprocal rights and duties, however, are those most amenable to a discourse strategy that supersedes simple reference and instead seeks to affect the response and reaction of hearer or addressee, most specifically in regard to the fulfillment of the social aspects of the indicated relation.

At a second level, a phrase's potential pragmatic properties are related to the participation or nonparticipation in the speech act of the arguments expressed in the predication. In the case of two-place possessives, this means that latent pragmatic possibilities are directly related to the presence of referent and relatum in the speech act. Expressions in which this is the case are those most likely to have a high pragmatic and a low propositional content. Thus, when told 'you are my father' the addressee is normally fully aware of his relation to speaker. Such a phrase must be

interpreted as an explicit articulation of an expectation that the connotative/socially sanctioned concomitants of a genealogical relation should and will be satisfied. In a similar vein, 'You are my doctor' is more likely a recrimination or suplication than a simple and pure reference to a social status. In neither case is new information being offered. Rather, such phrases are tacit attempts to have a series of rights and duties recognized.

Table 5 is a hierarchically organized list of possessive relations (according to person of referent and relatum) from those with the highest PRAGMATIC potential to those with the highest PROPOSITIONAL content.²⁷

Instead of positing a lexico-semantic naturalness hierarchy as the sole or prime catalyst for using a T-V construction, we suggest that the potential for pragmatic communication is a major factor promoting transitive verbal-based predications. Pragmatic potential is highest when the nominal relationship involves a set of reciprocal rights and duties (sectors A, B, C, and E of Table 5) and when the referent and/or relatum are participants in the speech act and thus likely to be affected by the force of the discourse statement (sector A with both referents present, and sectors B, C, and D with one present).

Equational expressions, which emphasize the identity of subject to

Table 5. Pragmatic vs. propositional potential according to person of referent and relatum (with indications of the constructions used in Nahuatl, Cahuilla, and Chinook split paradigms)

	Referent	Relatum ^a	Gloss	Nahuatl	Cahuilla	Chinook
High pragmatic-low propositional potential						
A	2	1	You are my	usually T-V	usually P-N	always T-V
	1	2	I am your	usually T-V	preferably T-V	always T-V
B	2	3human	You are his	always T-V	usually T-V	always T-V
	1	3human	I am his	always T-V	always T-V	always T-V
C	3human	2	He is your	always P-N	preferably P-N	always P-N
	3human	1	He is my	always P-N	almost always P-N	always P-N
D	3nonhuman	2	It is your	always P-N	preferably P-N	always P-N
	3nonhuman	1	It is my	always P-N	almost always P-N	always P-N
E	3human	3human	He is his	always P-N	P-N and T-V	always P-N
F	3nonhuman	3human	It is his	always P-N	P-N and T-V	always P-N
G	3nonhuman	3nonhuman	It is its	always P-N	P-N and T-V	always P-N
High propositional-low pragmatic potential						

a. There is a gap in the hierarchy. Although we lack cross-linguistic evidence, we suspect that 1, 2 and 3 human are generally uncommon as referents with a third person inanimate relatum and so have not included such a possibility in the table.

predicate, are probably more appropriate to the communication of propositional and referential meaning than relational expressions. Thus, the dominance of P-N types in those sectors with low pragmatic content is not altogether surprising. T-V predication focuses on the interaction of subject and object, and thus it would not be surprising that such expressions, like syntactic phrasal constructions, be used for pragmatically motivated declarations on relations of reciprocal rights and duties, particularly when one of the referenced arguments (referent or relatum) is present in the speech situation.

Not all our expectations are borne out by Table 5. For example, why are B relationships T-V whereas C relationships are P-N in Nahuatl and Chinook? According to Seiler, who has written extensively both on possession and on Cahuilla "inverse" expressions, this type of split reflects the more NATURAL (hence inherent and "directly" expressed) nature of C possessive predications in which "possessum" (our referent) is further from Ego than relatum. In B, the possessive relation is UNNATURAL: "possessum" is closer to speaker than relatum. Therefore an "inverse" structure is utilized that "establishes" a relationship not naturally assumed. We have, however, already pointed out several difficulties with such an approach (cf. section 3.1).

Moreover, the "naturalness" argument itself does not account for several peculiarities of the data. For example, 'you are my' is almost exclusively T-V in Nahuatl and Chinook while "mostly direct" in Cahuilla. The hypothesis that transitive verbal (subject→object) expression of two-place predication has a greater inherent pragmatic potential than predicate nominal (subject = predicate) expression, and that a phrase such as 'you are my' is pragmatically and not propositionally oriented does, however, explain the Nahuatl and Chinook data. Note also that according to the lexico-semantic naturalness hierarchy one would expect that constructions of the type 'I am your' would more likely be transitive verbal than constructions of the type 'you are my'. However, as we have seen with Huichol ([10]), just the opposite is the case, at least with some relators. This gives further support to our argument that pragmatic considerations may affect split paradigms since first person subjects have a performative potential not found with other person subjects. Additionally, the lexico-semantic hierarchy argument has little bearing on the type of structure used to encode relations between persons of equal distance from Ego, as in lines E, F, and G of Table 5. Thus, simply to account for the distribution of P-N and T-V structures probably both lexico-semantic hierarchy and pragmatic arguments should be considered.

More significantly, however, a pragmatics-based argument can account for the contrastive existence of transitive verbal and predicate nominal

encoding of social relations, a problem the lexico-semantic approach cannot address. Moreover, a pragmatic focus predicts a split based on presence and humanness of the speech-act participants as referent and/or relatum and permits an analysis of splits based on the specific connotations of particular relators. Furthermore, as we argue in the following section, the apparently anomalous features of a given language may be due to the interaction of pragmatic factors of discourse with language-specific morphosyntactic facts. We illustrate this possibility by explaining certain anomalous features of the Nahuatl split system in this way.

4. A case study of Nahuatl: the interplay of pragmatics and morphosyntax in the development of a split system

The Oapan Nahuatl split paradigm described in section 2.4 is an oddity within Nahuatl dialectology. Elsewhere (Amith and Smith-Stark 1994), we have argued that Oapan is a relic area in this sense. We show that other Uto-Aztecan languages (Huichol, Cora, Cahuilla, and Hopi) show evidence of the use of both P-N and T-V constructions. We hypothesize that the Oapan Nahuatl split system developed from an earlier situation where both constructions were present and in contrast, much like modern Huichol (cf. section 2.1). In all other known Nahuatl dialects, the T-V construction was lost altogether, replaced by the more unmarked P-N construction. However, in the Oapan area the semantic distinction was lost, but the two constructions survive in virtual complementary distribution. In this section we will show how a pragmatically oriented model can account for the way the present system has developed. To do so, we must explain certain apparent deviations from the system predicted by our pragmatic approach. Specifically, we must account for two general situations, represented in Table 6, which we have not yet explained in terms of the pragmatic model we propose. The first, which we treat in section 4.1, consists of those phrases (lines B, C, and D of Table 6, which correspond to the lines with the same labels in Table 5) in which either referent or relatum is third person and the other argument is first or second person. Here we must explain why they do not all behave in a parallel fashion. The second situation (lines X and Y), which we deal with in section 4.2, involves the use of *te:-* 'someone' as part of the possessive predication. With the use of *te:-*, the phenomenon we wish to explain is the absence of T-V forms even when first and second persons are involved.

Table 6. *Distribution of P-N and T-V constructions in Oapan Nahuatl*

	Gloss	P-N	T-V
A.	You are my father	ti-no- tah ^a	ni-miç- tah
B.	I am his/her mother	*ni-i:-na:n	ø-ne:ç- na:n
C.	She is my wife	(yewa) ø-no- siwa:w	*ni-k- siwa:w
D.	It is my house	(yewa) ø-no- kal	*ni-k- kal
X.	I am someone's child	ni-te:-kone:w	*??-ne:ç-kone:w
	Someone is my child	*??-no-kone:w	*ni-te:- kone:w
Y.	It is someone's house	ø -te:-kal	*??-ki- kal
	Someone is its house	*??-i:-kal	*ø -te:- kal

a. Recall that with 1st and 2nd person referent and relatum P-N forms are accepted as correct in elicitation but are rarely if ever used in spontaneous speech.

4.1. *Nahuatl morphosyntax of possession and predication: first and second person referents*

According to our pragmatic model, one would expect a preference for the T-V construction to have developed for those relations covered in lines B and C of Table 6. In both cases human actors, one of which is first or second person, are involved. Presumably this would motivate a speech act with pragmatic concern. As can be seen, however, the transitive verbal pattern is impossible in the case of a human third person referent and first or second person relatum, although it is required in the complementary case, that is, a first and second person referent and a human third person relatum. It is our claim that this apparent anomaly can be explained by a combination of pragmatic and morphosyntactic considerations that operated in the context of a loss of semantic differentiation between P-N and T-V forms.

Significantly, Nahuatl does not formally distinguish between third person human and nonhuman subjects or definite objects. As a result, the morphology of C and D constructions is identical. There are, however, two important points to consider. The first is that D-type phrases are undoubtedly more common in discourse than C-type phrases. That is, in a corpus of natural discourse we would expect to encounter more references to object-owning than to kinship relations with a third person referent. The second point is that the propositional goals of D-type phrases should generally be more salient than their pragmatic ones, given the inanimate status of the referent. Thus, in terms of the pragmatics of discourse, we would expect that P-N expressions would dominate for third person referents. Notice, furthermore, that no such factor favoring equational expressions could influence B-type phrases. This is because

the relatum would virtually have to be human given that the referent is first or second person. This would incline utterances to favor pragmatic forms of expression. Thus whereas B-type utterances require that all participants be human, a nonhuman referent would be more common with C-D type utterances (formally equivalent to each other).

Another factor important to understanding why B-type phrases are T-V and C/D type phrases are P/N relates to the multifunctionality in Nahuatl of P-N expressions with a third person referent. A major difference between the P-N and T-V forms in lines C and D of Table 6 is that the former are functionally more versatile. Thus, surface forms such as *nosiwa:w* (or *nokal*) may function either as a simple nominal (*no-siwa:w* 'my wife'), or as a predicate (\emptyset -*no-siwa:w* 'she is my wife').²⁸ In contrast, the unrealized **niksiwa:w* could only have functioned predicatively. We suggest that more versatile forms, which are probably more frequent and hence unmarked in a certain sense, are morphosyntactically favored and might tend to dominate over the course of time. Note that the P-N and T-V forms in line B (Table 6) show no such difference. Both are unambiguously predicates and therefore neither is more versatile than the other, although the T-V forms would be favored for the pragmatic reasons we have already discussed.

4.2. Equational interpretation of the indefinite prefix *te:-*

The use of *te:-*, which serves as an indefinite human object marker on verbs and an indefinite human possessor on nouns, presents significantly distinct problems of analysis from those discussed above. One reason is that Nahuatl verb morphology does not contain a marker for a specifically indefinite human subject. As illustrated in lines X and Y of Table 6, a P-N construction of the type *ni-te:-kone:w* (with *te:-* as relatum) has no possible T-V correlate, since the possessor (relatum) would have to show up as an indefinite subject. For the same reason, a relational expression of the type *ni-te:-kone:w* (with *te:-* as referent), if such an expression were used, would have no possible P-N correlate. Obviously, then, Nahuatl does not offer the possibility of alternate P-N and T-V expression of the same kin relation when an indefinite human is involved, as either referent or relatum. However, it is still necessary to explain why it is that only the P-N interpretation of forms like *ni-te:-kone:w* is possible, that is, why the argument structure is interpreted as S-Possr-Relator and not the also possible S-O-Relator.

The possibility of two interpretations is due to the fact that a formally identical morphological marker, *te:-*, represents both the indefinite object

prefix and the indefinite possessor (relatum) prefix. Thus, a surface structure such as *nite:kone:w* allows two potential interpretations, one with *te:-* as an indefinite relatum in a predicate nominal construction ([25a]), and the other with *te:-* as an indefinite object/referent in a transitive verbal construction ([25b]).

- (25) a. ni- te:- kone:-w
1sgs- IndefPossr- CHILD-Possd
'I am someone else's child.'
- b. *ni- te:- kone:-w
1sgS- IndefO- CHILD-Possd
'Someone else is my child.'

However, in spite of the formal possibility of interpreting such expressions equationally ([25a]) or relationally ([25b]), only (25a) is acceptable. Pragmatic considerations provide the key to understanding this phenomenon.

In Oapan Nahuatl, *te:-* is a contextually restricted pragmatic device used to signal nonpresence of relatum, usually the possessor of inanimate objects. It implies that although the relatum is not present he/she is known to speaker. Thus, *te:-* functions to "detopicalize" the relatum and to remove him/her from the arena of discourse. Perhaps the best translation for *te:-* would be 'someone else's'.²⁹ The pragmatic and excluding use of *te:-* is well illustrated when used negatively ([26a]). Compare the negative use of *yekah* 'someone' ([26b]).

- (26) a. š- te:- a:ška
Neg- IndefPossr- POSSESSION
'It is not someone else's' (the implication is that it belongs to speaker or, secondarily, another person present in the speech situation).
- b. š- ekah i:- a:ška
Neg- SOMEONE 1sgPossr- POSSESSION
'It is no one's' (i.e. it has no owner).

The discourse function of *te:-* as a "detopicalizer" is important for understanding why a two-place predicate such as *nite:kone:w* is interpreted as an equational and not a relational expression. In equational expressions, as relatum, it is not the topic. This is in accord with the "detopicalizing" function of *te:-*. However, in a Nahuatl relational expression the referent, cross-referenced by the object marker, is the topic of discourse, as we pointed out at the end of section 2.4. Put simply, *nite:kone:w* as an inverse verbal predicate would signify 'Someone (else) is my child'. This would topicalize *te:-*, which contradicts its basic function. In an

equational expression, *te:-* as relatum and not referent would not be interpreted as the topic of discourse. This accords with the basic function of this prefix.

In section 4.1 we argued that language-specific morphosyntax made surface forms such as *no-siwa:w* '(she is) my wife' multifunctional as predicates or nominals. This same argument applies to forms with an indefinite relatum such as *te:kone:w* '(s/he is) someone else's child'. Thus, an interpretation of *te:-* as relatum rather than object increases the functional versatility of a single form such as *te:kone:w*; it may function as either a nominal or a predicate. However, with *te:-* interpreted as indefinite object, a preceding subject (zero morpheme) is required and the combination would be limited to predication.

Finally, notice that the fact that Nahuatl uses P-N forms when the relatum is indefinite provides additional evidence against the argument that a lexico-semantic naturalness hierarchy (such as that proposed by Seiler) is the sole explanation of split paradigms. This position states that when referent/possessum outranks relatum the T-V form is utilized. Thus, 'I am someone's' should be "inverted" (cf. Table 3, last line). However, in Nahuatl it is not; it is realized as a P-N expression. The explanation we suggest for the equational interpretation of two-place predicates with *te:-* follows our previous line of reasoning. In our argument we stress the interaction of the functional aspect of predicate nominal versus transitive verbal expressions in communicative discourse, with language-specific properties of Nahuatl morphosyntax and semantics. It is this interaction that has oriented linguistic change in a given direction, particularly after the loss of semantic and pragmatic differences between predicate nominal and transitive verbal predication of interpersonal relations.

5. Conclusion

In this paper we have demonstrated the existence of two types of morphosyntactic structures used to encode propositional statements of the form 'X is Y's kin term'. In order to analyze these structures we have established two ideal types. The P-N type is characterized by a predicate nominal argument structure, which establishes an equational relation between referent and relator, and the grammatical realization of the referent as a subject and of the relatum as a possessor. The ideal T-V type, on the other hand, is characterized by a transitive verbal argument structure, which stresses an interactive relation between the referent and the relatum, and the grammatical realization of referent as object and of relatum as subject. In natural language, these P-N and T-V types often

deviate from their ideal form, presenting noncanonical structures within a given language.

The overall predominance of the P-N structure in the languages of the world, combined with the switch in the encoding of role relations, has motivated calling the P-N structures "direct" and the T-V structures "inverse." However, a focus on "inversion" has the disadvantage of implying the primacy of "direct" expressions, and the existence of a process that derives "inverse" structures from them, rather than recognizing two alternative and functionally distinct mechanisms for expressing different aspects of a superficially identical relation. It ignores what for us is the defining characteristic of the two types of predication: their predicate nominal or transitive verbal nature.

When the two constructions are found together in a language there is often either a semantic contrast between one and the other form, or a conflation of the two into a single split paradigm. Moreover, in such languages these contrasting structures are always found in the realm of kinship relations. This suggests that there is something specific about these relations that promotes the occurrence of a contrast between P-N and T-V forms.

In examining the semantic correlates of one and the other construction we have suggested that transitive verbal forms are more appropriate to discourse with a pragmatic goal, and predicate nominal forms to discourse with a simple propositional goal. This would account for their cooccurrence in the semantic domain of kinship relations given that such relations are both naturally given, appropriately described in P-N terms, and socially mediated, appropriately described in T-V terms.

In the case of split paradigms, the factor that determines which structure will be used is usually the person of the referent and/or relatum. A lexico-semantic naturalness hierarchy has been invoked to explain the nature of these split paradigms. However, we feel that this is only a partial answer to a complex problem. We suggest that the propositional and pragmatic correlates of P-N and T-V constructions are also important in explaining the split paradigms that occur.

Moreover, specific cases of split paradigms should be analyzed on the basis of a detailed study of the morphosyntactic characteristics of a given language and the semantic or pragmatic distinctions that the structures examined manifest. We have demonstrated the interaction of these factors in the Oapan Nahuatl case. In regard to the latter, we have offered an argument that linguistic versatility and statistical dominance, derived from pragmatic function and language-specific morphosyntax, provide what may be called a second level influence on the development of a split

paradigm in the context of a loss of semantic and pragmatic difference between the P-N and T-V forms.

At an empirical level we hope our analysis will stimulate researchers in other languages to look for the structures we have discussed. At a more theoretical level we hope to have shown the feasibility of an alternative explanation for split paradigms and to have demonstrated the importance of combining an understanding of cross-linguistic tendencies with detailed research on language-specific features as a necessary step in understanding particular manifestations of linguistic change and synchronic structure.

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Notes

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2. In addition to the languages discussed in this paper, the verbal pattern seems to be found in Algonquian (cf. Bloomfield 1970 [1946]: 452, 462-463, 471), Seri (cf. Moser and Marlett 1989), Wichita in the Caddoan family (David Rood, personal communication), Lakota in the Siouan family (David Rood, personal communication), and Jemez in the Tanoan Family (Ken Hale, personal communication). However, we have not yet obtained enough information on the constructions in these five languages to be able to discuss them further at this time.

In addition, Cristina Monzón has recently brought to our attention data that indicate that a construction with transitive verbal properties was a standard way of expressing kinship relations in sixteenth-century Tarascan (a language isolate spoken in the state of Michoacán, Mexico), though such forms do not seem to be found in the modern language. Consider the following examples based on the root *pire* 'younger sister of a male' and taken from two early Tarascan grammars: Gylberti 1558 (=G) and Lagunas 1574 (=L). We have identified morphemes based on information provided by Cristina Monzón; Fernando Nava provided additional help.

- (i) *pire-nche* 'mi hermana' [my sister] (G 105v)
'Mi hermana menor. Y solo el varon lo dize' [my

- younger sister, and only a male says it] (L 116)
pire-ntsi-te 'Tu hermana' [your sister] (G 106r)
'tu hermana' [your sister] (L 117)
pire-mba 'su hermana del' [his sister] (G 105v)
'Su hermana' [his sister] (L 117)
- (ii) *Hi pire -mbu -ri -pih -ca.*
1sgS SISTER -? -body? -aspect -1S/2S
'Era mi hermana' (G 107r).
['She was my sister.']
(lit. 'I sistered [of male] her.')
- (iii) *Hi pire -mbu -ri -ca.*
I SISTER -? -body? -1S/2S
'Yo soy su hermano della, o es mi hermana' (G 105v).
['I am her brother, or she is my sister.']
- (iv) *pire -mbu -rhi -ti =reni*
YOUNGER.SISTER -? -body? -3S = 2sgS/3sgS → 1sgO
'Es mi hermano mayor' (L 117).
['He is my elder brother.']
(lit. 'He younger.sisters [of male] me.')

The forms in (i) seem to be basically nominal; they employ a set of special possessive suffixes used with kin terms. However, the forms in (ii)-(iv), based on the same root, *pire*, have verbal morphology. For example, (iv) includes the suffix *-ti*, which marks third person subjects on verbs. The pronominal clitic *reni*, used when a second or third person singular subject acts on a first person singular object, is also present. The transitive verbal pattern is well illustrated in (ii): the relatum is marked as subject (*hi*, the subject form for the first person singular independent pronoun, and *-ca*), and the referent is a third person singular object, not overtly marked in Tarascan verb morphology. Note also that for (iii) and (iv) the glosses given unexpectedly switch the relator from '(younger) sister' to '(elder) brother', which effectively makes the subject (relatum) of the Tarascan phrases the subject (referent) of the translations.

Curiously, while discussing some general features of his proposed Amerind family, Greenberg (1987: 48) notes the following: "We may add a further typological fact. Kinship nouns that have a relational meaning are sometimes treated like transitive verbs when they are predicated — for example, 'she is my mother' is, as it were, 'she mothers me.'" However, the full extent of the transitive verbal pattern among American languages and the significance of its apparent absence in other areas remain to be determined.

3. The Yuman family is found in the southwestern United States and in northwestern Mexico.
4. We are grateful to Kenneth Hill and Emory Sekaquaptewa at the University of Arizona, Tucson, for supplying us with our information on Hopi, a Uto-Aztecan language spoken in the southwestern United States. All examples are from the Third Mesa dialect. Much of the description of the Uto-Aztecan languages we discuss in this paper (Hopi, Huichol, Cahuilla, and Nahuatl) is based on Amith and Smith-Stark (1994).
5. We use the following abbreviations in this paper: 1,2,3 = first, second, and third persons respectively; Abs = absolutive; As = assertative; D = dative; 'D' = dativized agent; du = dual; epen = epenthetic element; Erg = ergative; excl = exclusive; fem = feminine; Fut = future; G = genitive; Indef = indefinite; Impf = imperfect; IP = independent pronoun;

masc=masculine; Neg=negative; Nsuf=required noun suffix; O=object; OrRel=ordered relation; P1=Cahuilla subject of verb and possessor; P2=Cahuilla subject of predicate noun; P-N=predicate nominal ideal type; pl=plural; Possd=possession; Possr=possessor; S=subject; sg=singular; T-V=transitive verbal ideal type; Vbzz=verbalizer.

6. The two forms for 'mother', *ngu* and *yu*, are allomorphs whose distribution is not influenced by the two construction types being illustrated here.
7. In Iroquoian, transitive verbal constructions, the only ones possible given the absence of P-N counterparts, may be either relational ([21b], [22a], and [22c]) or equational ([21a], [22b]). In English, transitive verbal constructions ([2a]-[2b]) are always equational. Thus, although the majority of T-V structures are probably relational, this is not always the case. On the other hand, apparently all P-N structures are equational.
8. Huichol is a Uto-Aztecan language spoken in western Mexico. For our data we thank Julio Ramírez, Gabriel Pacheco, and Hector Carrillo, native Huichol speakers working at the Centro de Investigación de Lenguas Indígenas, University of Guadalajara, and Paula Gómez, a linguist at the same Center presently involved in a long-term research project on Huichol grammar and lexicon directed by José Luis Iturrioz Leza.
9. Some speakers tend not to use the assertative *pi-* in the T-V construction, whereas others will maintain it in both the P-N and T-V structures.
10. Iturrioz Leza (1987: 246) has noted the verbal character of noun stems that express interpersonal relations. See also his discussion of the use of *-ti* with nominal stems.
11. Chinook is a language isolate usually classified as Penutian, spoken in Oregon. Our discussion of this language is based on Silverstein (1976).
12. Silverstein (1976: 135-136) provides the following example of an "inverse transitive" construction:

(i) i- n- l- ʔa
 3sgmascAbs- 2sgD- postposition- WAFT
 'I smell him' (lit. 'he wafts toward me')

However, when the 'dativized agent' is first or second person, the construction is "thematized," that is, the "dativized agent" appears as an ergative argument, as in the following example:

(ii) č- nš- l- ʔa
 3sgmascErg- exclplAbs- postposition- WAFT
 'he smells us (excl)'

13. The fact that the subject form of the absolutive is used in intransitives whereas the object form is used in inverse transitives is consistent with the underlying transitive aspect of inverse transitives. This aspect is reinforced by the alternation between the dative argument and the agent when such constructions are "thematized." However, Silverstein's focus on "thematization," in which a dative agent is realized as A when O is first or second person, could be looked at from another angle. One could claim that an underlying A-O sequence is realized as O-'D' when the object is third person. This would be an instance of the phenomenon known as inversion in relational grammar, whereby certain types of subjects, typically experiencers, are expressed as datives rather than as normal subjects (cf. Harris's [1984] description of such a situation in Udi). Such an interpretation, however, would make the parallels between inverse transitives and the possessive construction harder to sustain. Maintenance of both postpositions and the genitive marker in "thematized" forms of inverse transitives and possessive

predications seems to indicate that the "inverse transitive" form and its possessive analogue are basic, in accord with Silverstein's analysis.

14. Remember that in the third person absolutives distinguish between S and O.
15. As to why the genitive marker remains (Chinook genitives are basically bimorphemic: nominative shape+genitive marker *-a-*) Silverstein (1976) notes that the genitive marker *-a-* acts like other inverse transitive postpositions.
16. Our data from Cahuilla, a Uto-Aztecan language spoken in southern California, are taken from the items by Seiler (1977, 1980, 1982a, 1982b, 1983, 1985) cited in the References, which also include Seiler's detailed discussions of possession in general. The translation glosses are Seiler's.
17. In our discussion of Cahuilla we distinguish Seiler's terminology from our own by maintaining his terms in quotes.
18. Nahuatl is a Uto-Aztecan language widely spoken in Mexico. Our data on Nahuatl from the Oapan area in central Guerrero are based on fieldwork by Amith and are discussed in much greater detail in Amith and Smith-Stark (1994). The examples we cite in this article are from San Agustín Oapan.
19. In Nahuatl, stress groups are normally accented on the penultimate syllable. We do not mark normal stress, as in example (19). However, as often occurs in Oapan Nahuatl, when stress groups are irregular, we mark all stressed syllables, hence the accent on *kóne:w* in example (18) (cf. Amith 1993).
20. The Iroquoian languages were traditionally spoken in the eastern United States and Canada. Our Oneida data were kindly provided by Floyd Lounsbury, who also devoted several hours to helping us understand the workings of the Oneida system. Conversations with Marianne Mithun, a brief comment by Sapir (1917: 88), and an examination of Mithun (1976) and Chafe (1967) indicate that a similar system is found in other Iroquoian languages.
21. In fact, Iroquoian "nouns" have generally been analyzed as verbal.
22. Under this interpretation, however, the absence of a lexical stem for 'elder brother' is still unaccounted for.
23. See Silverstein's (1976) initial discussion of lexico-semantic hierarchies, in which an obvious difficulty is the relative "height" in the hierarchy of first vs. second person.
24. By this we mean that genetic, not social, factors dominate kinship relations. Natural parentage is at some level recognized as basic even in the face of abrogation of social responsibilities. Nevertheless, with more distant kin, recognition of the relationship is often heavily dependent on social, as opposed to simply natural/genetic, ties.
25. This discussion has been limited to a general description of the nature of possessive categories. Obviously there is much internal differentiation: some body parts are more naturally/closely associated with possessor; with some kin terms the natural component is more important than with others, etc. Both cognitive (cf. prototype theory) and syntactic (cf. studies of "squishes") factors potentially demonstrate the internal structure of "possessed" categories. We have simply noted those categories that many languages distinguish through the morphology and syntax of possession.
26. According to Seiler (1977: 273), "[an establishing expression] conveys the idea that the relation is not given or taken for granted, BUT IS RATHER BEING ESTABLISHED" (emphasis added). We prefer to focus on the natural vs. socially mediated aspects of kin relations. Seiler's emphasis on the "establishing" function of "inverse" terms is unfortunate to the extent that it implies that such relations are constantly in need of public reestablishment. Often they are ritually constituted in a single event and endure as such.
27. Although the presence or absence of third person (e.g. 'hearer') is quite important to the pragmatic value of the speech act we do not express this factor in the chart, given

the usual lack of syntactic deictic markers that reference this aspect of the speech situation.

28. Although studies of Classical Nahuatl, such as Andrews (1975) and Launey (1988), have claimed omnipredicativity for Nahuatl, in which all noun phrases are predicates with a subject marker present, this is definitely not the case with the Nahuatl of central Guerrero.
29. Note that in Classical Nahuatl *te:-* was commonly employed with kinship terms to indicate indefinite "possession" (cf. Launey 1986: 514ff.). This is not the case in Oapan Nahuatl. *Te:-* does not reference an indefinite human relatum; it does not mean simply 'someone'. Nouns of interpersonal relations, particularly kinship terms, are frequently expressed with no relatum if possession is nonspecific.

The most common uses of *te:-* are *te:ča:n* 'someone else's house', *te:la:lpān* 'someone else's field', *te:a:ška* 'someone else's possession'. Also frequent is *te:kone:w* 's/he is someone else's child' (usually in response to the question 'is this your child?'). Clearly an inverse interpretation of, for instance, *te:ča:n* makes no sense: '??someone (else) is its/his house.'

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