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Gildea*

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Footnotes

- (1) Thanks are due to Talmy Givón and Stephan Schuetze-Coburn for their comments on the oral version of this paper at the conference.
- (2) Transcription conventions:
 - speaker identity: A, B
 - pauses: very brief (.); unit (-); longer (--); long (---)
 - overlapping speech: *...*; **...**
 - intranscribable or dubious transcription: ((...))

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STRUCTURAL CORRELATES TO FUNCTIONAL CHANGE: A PANARE NOMINALIZER 'SURFACES' AS MAIN CLAUSE ASPECT¹

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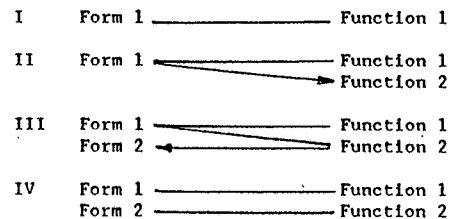
In this paper I discuss a particular pattern of language change, one which was first documented in studies of first language acquisition (Slobin 1973) and naturalistic second language acquisition (Wode 1976). I give examples from the history of English to demonstrate that the pattern is also found in historical language change. With this background established, I present synchronic data from Panare (Carib), in which a particular set of verbal suffixes seems to be functioning both to derive a nominal constituent from a verb, and to inflect a verb for aspect. One possible analysis for this set of suffixes would hold that they must be considered nominalizers at every level of structure, but that they are functioning as aspect markers. After presenting the arguments for this analysis, I present some additional facts which suggest that when speakers extend an existing form to code a new function, the speakers' mental representation of syntax also changes. The syntax associated with the two functions now has independent existence, and will thus begin to change independently (parallel to the way two previously identical sister languages develop innovations independently once they split). In Panare, three distinct innovations have taken place since the split, one in the morphosyntax associated with the genitive-NP construction, and two in the morphosyntax associated with the new inflected verb-auxiliary construction. Thus, although there is no difference in the form of the suffixes when they are used for different functions, it is nevertheless clear that the structure associated with the two functions has changed, exactly according to the pattern described at the start of the paper.

1 A pattern in language change

Language acquisition can be thought of as a case of extremely rapid language change; new forms and new functions are constantly being added to the grammatical system of the language learner. As these new forms and new functions appear in the

speech of the learner, three logical patterns might occur: the learner might learn a new form and a new function simultaneously (i.e. never expressing a new function until the form is acquired and, conversely, never using a new form except to express a new function); the learner might use pre-existing forms to express new functions; or the learner might express pre-existing functions with new forms. Slobin (1973 p. 184) found that first language learners typically follow the latter two patterns: "new functions are first expressed by old forms" and "new forms first express old functions." Wode (1976) places these two patterns into a "developmental sequence" as schematized in 1. At stage I, one form codes one function; at stage II, new functions are coded by old forms; at stage III, a new form codes one of the old functions, but not the other, while the old form may continue to code both; at stage IV, each form codes only one function.

(1) Four stages in ontogenetic language development (Slobin 1973, Wode 1976):

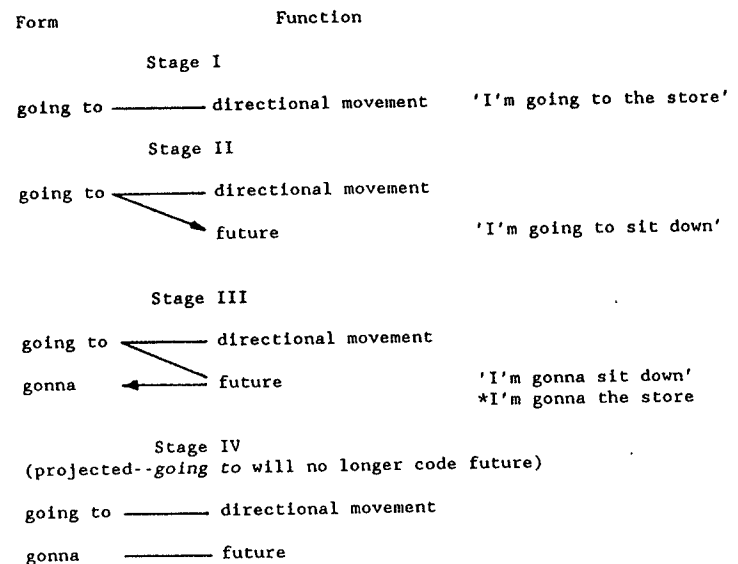


When one form evolves into two distinct forms (Stage III), what usually happens is that the original form remains relatively constant and a minimal modification of the old form develops until the two are distinct and separate. In this pattern only one of the functions is ever coded by the new form. However, the original form may continue to code both functions for a longer period of time. In the development of learner language, Stage IV usually comes quickly, with the old form being reanalyzed back to just one function, and the new form becoming the sole means of expressing its function. This same pattern of development can be observed in historical language change as well.

The first three stages can be observed clearly in the development of the verb of English *going to* into the future modal *gonna*. At stage I the verb *go* bears the suffix *-ing* and takes a prepositional phrase. The meaning of *going to* at Stage I is 'motion-PROGRESSIVE', with the goal of the motion indicated by the object of the prepositional phrase headed by *to*. The verb plus

the preposition appear frequently as almost a unit, *going to*, meaning directed motion: *I'm going to the store*. At stage II the locational NP in the prepositional phrase is replaced with an infinitive verb, and the goal of the motion is expressed as an action rather than a location. This construction is interpreted as a future, probably expressing intent of the speaker: *I'm going to sit down*.² In Stage III this second function of *going to* may also be expressed by the reduced form *gonna*: *You're gonna be sorry*. But the new form may not express the original function of directed motion: **I'm gonna the store*. This is the stage represented in modern English. If diachrony parallels ontology exactly, we would predict a fourth stage where *going to* would no longer be allowed to express future, but this has not yet appeared.³ A schematic of the development of the English *going to/gonna* distinction appears in 2.

(2) Stages of Development for English *gonna*:



In the second type of formal variation, the phonetic value of the form remains the same but the syntactic environments in which the form appears begin to diverge. Each of the functions

expressed by the form becomes associated with the particular environment(s) in which the form appears. This is exemplified by English *-ing*, which is both an aspect marker and a nominalizer. When a verb bearing *-ing* appears in a nominal environment, following a quantifier and/or adjectives, and taking the nominal plural suffix *-s* (e.g. *There were three brutal killings last week*), the only interpretation is that *-ing* is a nominalizer, and the verb bearing *-ing* is actually not describing ongoing actions, but it is treating events as referential entities. In contrast, when *-ing* appears on a verb following a copula inflected for present tense (e.g. *I'm washing the dishes*), the interpretation is a description of an ongoing action. In this environment, the inflected verb may not take nominal morphology (**I'm three brutal washings the dishes*). Although the form, *-ing*, is still the same, the two functions now appear in distinct structural environments (as befits distinct word types). One could argue forever over whether it's really the 'same' *-ing* appearing in these two environments; there is no debate that different functions are associated with *-ing* in those two environments. The historical development of *-ing* is schematized in 3:

(3) The example of English *-ing*:⁴

Phonemic	Syntactic Environment	Function
Stage I		
<i>-ing, -unge</i>	COP (ADJ) _____ (PL) (of NP)	Nominalizer
Stages II & III		
<i>-ing</i>	COP (ADJ) _____ (PL) (of NP)	Nominalizer
		Progressive Verb
Stage IV		
<i>-ing</i>	COP (ADJ) _____ (PL) (of NP)	Nominalizer
(<i>-ing</i>)	COP _____ NP	Progressive Verb

If one structure begins to be used in two different ways, then it follows that at some point in time speakers will no longer treat the structures as though they were still precisely the same. When speakers begin to distinguish two functions for a single structure, the strong hypothesis argues that it is only a matter of time before speakers also treat the two as different structures. Hence, innovations which occur in one structure

should not necessarily occur in the other. The result is that there will be synchronic differences between the forms--and/or the syntactic environments associated with the forms--which express the two functions.

It is this pattern of historical change which I intend to demonstrate for the Cariban language Panare. Like many other Amerindian languages, a number of Cariban languages use nominalization as the exclusive strategy for subordination.⁵ That is, the functions for which English uses complement clauses, adverbial clauses, and relative clauses are all accomplished in these Cariban languages with nominalized verbs. In Panare, the cognates to these Cariban nominalizers have gone through a change comparable to that of English *-ing*, such that synchronically the same formal suffixes may function to nominalize the verb for use in subordinate clauses, or they may function as aspect suffixes on main clause verbs. The steps of my presentation will be as follows: first, quickly present some relevant characteristics of simple main clause syntax. Second, describe predicate nominal clauses (the frame within which the change takes place). Third, show what happens when the predicate noun in a predicate nominal construction is historically a nominalized verb--i.e. a nominalized complement of a copula. Finally, I will argue that this last construction is in fact better thought of synchronically as a main clause verb with an auxiliary.

2 Background: the morphosyntax of main clauses in Panare

Before discussing how a historically nominalized verb form has taken on characteristics of finite main clause verbs, it is necessary to identify those characteristics in simple main clauses (§2.1). Because the nominalizer I use for my case study appears only on transitive verbs, only the characteristics of main clause transitive verbs will be described. In order to demonstrate the development of the predicate nominal construction into an auxiliary for less finite verbs, simple predicate nominals are described in §2.2.

2.1 Past tense in main clauses

Simple main clause verbs are only those inflected with one of three past tense suffixes; all other verbal forms may take auxiliary verbs, but verbs inflected with one of these three tense suffixes do not co-occur with auxiliaries. I refer to the class of verbs inflected with a past tense suffix as finite verbs. Finite verbs take a personal prefix which agrees with both

subject (A) and object (O) of transitive clauses. Word order is relatively free in main clauses, with the object appearing both preverbally and postverbally. As a part of the description of main clause syntax, I note the first person (1SG) pronoun is becoming a proclitic, replacing the 1SG object agreement prefix.

2.1.1 Tense

All three of the past tense suffixes bound the verb temporally. The semantic difference between the three is one of temporal distance. The most commonly used suffix, *-yaj* 'PAST' means recent past, anywhere from just a moment to a couple of weeks or months ago. For events which happened a few months to a few years ago, the suffix *-i/-e* 'MED:PAST' is used. The third suffix, *-yake* 'DIST:PAST', is used only for things that happened many years ago. For the purposes of this paper, these semantic differences are unimportant. The key fact to note about the past tenses are that all verbs inflected for any past tense have the same syntactic and morphological properties.⁸ All finite transitive verbs take prefixes which agree with both the subject and the object of the clause. For simplicity, I will use only the *-yaj* suffix in the examples which follow; the agreement prefixes and the word order facts are the same for verbs inflected with *-i/-e* and *-yake*.

2.1.2 Prefix variation and word order

When an NP occurs immediately before a transitive verb, Panare allows that NP to be either the subject or the object. If it is the subject, the verb will appear with its normal accent pattern and a standard agreement prefix. If it is the object, the 3A30 agreement prefix no longer occurs and primary stress in the verb moves to the left. The following examples illustrate these phenomena. In 4, the object *arakon* 'black monkey' appears to the right of the verb *petyúma* 'hit'. The lexical accent for the verb falls on *ú* and the prefix is *n-* '3A30'.

(4) *petyúma* 'hit' with object to the right of the verb.

nipetyúmayaj	kën	arakon
n -petyúma-yaj	kën	arakon
3A30-hit	-PAST ANIM:INVISIB	black:monkey

'He hit the monkey.'

In 5, the same verb is in the same tense, but now the object appears immediately preceding the verb. The agreement prefix *n-* does not appear and primary accent in the verb shifts to the left. The accent shift is indicated in the morphemic representation as [^], glossed as PO for Preceding Object. The 3A zero morpheme is indicated in the morphemic analysis, as it is a member of the set of prefixes shown in Table 2.

(5) *petyúma* 'hit' with a pre-verbal object (PO).

arakon	petyumayaj	kën
arakon	[^] -0 -petyúma-yaj	kën
black:monkey	PO-3A-hit	-PAST ANIM:INVISIB

'He hit the monkey.'

For vowel initial verb stems there is one slight difference. While consonant initial stems may appear with no prefix (cf 5), a phonological rule requires that all inflected vowel initial stems appear with a (semantically empty) *y-* if they have no other prefix. In 6, the vowel initial verb *ikitë* 'cut' appears with the object to the right of the verb. Here there is no difference between vowel initial and consonant initial verb stems; *ikitë* takes the same agreement prefix as *petyúma*, *n-* '3A30'. The accent in unmarked stems falls on the last syllable of the word, in this case the past tense suffix *-yaj*.

(6) *ikitë* 'cut' with object to the right of the verb.

nikitiyaj	kën	aire
n -ikitë-yaj	kën	aire
3A30-cut	-PAST ANIM:INVISIB	meat

'He cut the meat.'

The same sentence appears in 7, but the object occurs preverbally. Morphologically this is a bare stem (cf *petyúma* in 5), but the semantically empty *y-* appears. Because the *y-* in this environment is phonologically predictable--i.e. not a true morpheme--it is not represented in the second (morphemic breakdown) and third (morphemic analysis) lines. Again, the zero morpheme is included as indicating 3A.

(7) *ikitə* 'cut' with a pre-verbal object.

aire *yikitiyaj* kən
 aire [^]-0 -*ikitə-yaj* kən
 meat PO-3A-cut -PAST ANIM:INVISIB

'He cut the meat.'

Thus, when there are two third person NPs in a transitive clause, there is no case-marking on the NPs, and the verbal prefix (if there is one) indicates only third-person acting on third-person (3A30); 'who did what to whom' is indicated by a combination of word order and verbal inflection. If a preverbal NP is the subject, the verb appears with its normal accent pattern and agreement prefix. If it is the object, the verbal accent shifts to the left and the verbal prefix agrees only with A (i.e. for 3A, it disappears). This second effect is somewhat less clear for vowel initial verbs because of the phonological rule that places a *y-* in front of prefixless vowel initial verbs. Even so, the overall pattern is made clear by analogy to consonant initial verbs.

2.1.3 1SG Pronoun as Pro-Clitic

The 1SG pronoun *yu* behaves differently from other object NPs; when the object is 1SG, word-order, prefixation, and accent facts are different regardless of subject. The 1SG pronoun *yu* has become a clitic, and is replacing the standard *0[^]-* morpheme as the first-person object agreement prefix. When *yu* cliticizes to the front of the verb, the *u* vowel reduces to the more generic central vowel *i*.⁷ Thus, the verb bears what appears to be an agreement prefix, *yi-*. But the verbal accent also shifts to the left, indicating a preverbal object. Diachronically, this apparent prefix is clearly the 1SG pronoun *yu* appearing pre-verbally, and in careful speech speakers will still separate off *yu* '1SG' from the verb.

With a true agreement prefix, the prefix agrees with a pronoun or NP, which can appear simultaneously elsewhere in the clause. The 1SG object clitic *yi[^]* is not a true agreement prefix, because when it is used, the 1SG pronoun *yu* cannot appear elsewhere in the clause. In 8, when the 3A10 prefix *0[^]-* is used, *yu* appears elsewhere in the clause. This example shows the second environment where *yu* cliticizes to the verb, following the past tense suffix *-yaj*, with the glottal stop at the end of *yaj* becoming a long vowel. But in 9, when *yi[^]-* appears pre-verbally,

the 1SG pronoun *yu* is not allowed to appear elsewhere in the clause.

(8) *pétyumayaayu* kən
 0[^] -*petyúma-yaj* -*yu* kən
 3A10-hit -PAST-1SG ANIM:DIST

'He hit me.'

(9) **yipétyumayaayu* kən
 **yu-* -*yu*

(he hit me)

It appears that the true agreement prefix for 3A10 is still *0[^]-*, and *yi[^]-* remains a proclitic syntactically; *yi[^]-* does not 'agree' with another NP which refers to 1SG--it is the sole reference to 1SG when it appears. Although it is not an agreement prefix, *yi[^]-* is certainly the most common way to indicate 1SG object, a fact which has consequences for another prefix set, as we will see below.

2.2 Predicate Nominals

The predicate nominal clause is relevant background to a discussion of historical change in Panare because it is the frame where functional change takes place. Two facts about Panare predicate nominal clauses are relevant: first, the word order is rigidly Predicate-Subject (Pred-S); second, there are three different types of copula, each with its own unique morphosyntax.

In English, a predicate must contain a verb inflected with tense in order to stand alone as predicate of a main clause. In Panare, three types of morpheme can appear between the subject and predicate nouns in a predicate nominal construction: the first, which I label pronominal particles, are nonverbal copulas apparently derived historically from demonstrative pronouns; the second, which I label AUX, appears to be a defective verb;⁸ the third, *ichi/e* 'be', is a standard verbal copula, clearly related to the ones attested in Apalai, Hixkaryana, and Carib of Surinam. Pronominal particles, AUX, and verbs inflected with finite (past) tenses are mutually exclusive--no two of the three can co-occur as the copular element in a single predicate. Thus, a predicate need not contain a verb if the copula is a pronominal particle.

The order in all predicate nominal clauses is as follows: the predicate noun (PN) comes first. It is then followed by

either a pronominal particle (ProPrt), by AUX, or by *ichi/e* 'be'. This first noun plus the pronominal particle, AUX, or COP forms a predicate. The second noun is the subject. The pronominal particle agrees with the subject for animacy, AUX or COP agree with the subject for person. This syntactic structure is schematized in 10:

- (10) [Predicate] Subject
 [Noun COP] Noun
- [PN ProPrt]
 [PN AUX] NP
 [PN be]

Preliminary data suggests that word order is rigid in predicate nominal clauses; the first noun always acts as the predicate nominal and the second as the subject. When the subject of a predicate nominal clause is 1SG or 2SG, no overt copula need appear. In 11a-b, the predicate NP *maestro* 'teacher' appears alone with the 1SG and 2SG pronouns respectively, forming a complete clause.

- (11) (a) *maestro yu*
 teacher 1SG
 'I am a teacher.'
- (b) *maestro amën*
 teacher 2SG
 'You are a teacher.'

Third person subjects require at least a pronominal particle. In 12a the NP *e'ñapa* 'Panare' occurs following the NP *maestro*, but the clause is disallowed. In 12b the animate proximal (ANIM.PROX) pronominal particle occurs between the same two NPs, and the result is a well-formed predicate nominal clause. In 12c the inanimate NP *manko* 'mango' follows the NP *e'chipen* 'fruit' and the clause is disallowed. The inanimate (INAN) pronominal particle *mën* appears between the two in 12d and the result is another well-formed predicate nominal clause.

(12) 3SG subject requires at least a pronominal particle

- (a) **maestro e'ñapa*
 (the Panare is a teacher)

- (b) *maestro këj e'ñapa*
 teacher ANIM.PROX Panare
 'The Panare is a teacher.'
- (c) **e'chipin manko*
 (mango is a fruit)
- (d) *e'chipin mën manko*
 fruit INAN mango
 'Mango is a fruit.'

The defective verb *aj* AUX can also function as the copula in a predicate nominal clause. For the purposes of this paper, three differences are notable between the pronominal particles and AUX: first, AUX appears with all persons, taking different prefixes to agree with 1SG and 2/3. Second, with AUX as the copula, the clauses are usually interpreted as past tense⁹. Third, the predicate noun is grammatically required to bear the adjectivalizing suffix *-pe* 'AD'. All of these points are exemplified in 13. In 13a the subject of the predicate nominal is *yu* '1SG', AUX takes the first person prefix *w-* '1', and the predicate noun *maestro* takes the required suffix *-pe* 'AD'. In 13b *-pe* does not occur on the predicate noun and the clause is rejected. In 13c the subject is *amën* '2SG' and AUX takes the corresponding agreement prefix *m-* '2/3'. In 13d again the suffix *-pe* does not appear on the predicate noun, and again the clause is rejected.

(13) AUX as copula

- (a) *maestrope waj chu*
maestro-pe w-aj yu
 teacher-AD 1-AUX 1SG
 'I was a teacher.'
- (b) **maestro waj chu*
 (I was a teacher)
- (c) *maestrope maj amën*
maestro-pe m -aj amën
 teacher-AD 2/3-AUX 2SG
 'You were a teacher.'
- (d) **maestro maj amën*
 (you were a teacher)

The third entity which can function as a copula in Panare is the verb *ichi/e* 'be'. As does AUX, *ichi/e* appears with all

persons, taking the regular verbal prefixes to agree with the various subjects. Also, the predicate noun is grammatically required to bear the adjectivalizing suffix *-pe* 'AD'. In 14a the predicate noun is *maestro*, the copula is *ichi/e*, and the subject is the third person NP *Toman*. The third person intransitive agreement prefix *n-* '3' appears on the verb and the grammatically required suffix *-pe* appears on the predicate noun. In 14b the suffix *-pe* does not occur and the clause is rejected.

(14) The suffix *-pe* is required with the 'to be' verb

- (a) *maestrope ñe'yaj Toman*
maestro-pe n-e' -yaj Toman
 teacher-AD 3-COP-PAST Thomas
 'Tom was a teacher (recent past).'
- (b) **maestro we'yaj chu*
maestro w-e' -yaj yu
 teacher 1-COP-PAST 1SG
 (I was a teacher)

3 Complement of copula versus main verb with auxiliary--the case of *-ñe*

When the predicate noun in a predicate nominal construction is derived from a verb, the structure of the clause must be as outlined in 15. The transitive verb *ikitë* 'cut' bears the agent nominalizing suffix *-ñe* 'NMLZR'. This derived nominal is then possessed by the logical patient of 'cut', *aire* 'meat'.¹⁰ The genitive and its possessed nominal form a complex NP, which is the predicate noun of the predicate nominal main clause. The main clause copula is the pronominal particle *kěj* 'ANIM.PROX', and the subject is the third person visible deictic pronoun *měj* 'ANIM.VIS'.

(15) Nominalized verb in a predicate nominal frame

<i>aire'</i>	<i>chikitëñe</i>	<i>kěj</i>	<i>měj</i>
<i>aire'</i>	<i>^ -ikitë-ñe</i>	<i>kěj</i>	<i>měj</i>
<i>meat</i>	<i>PP-cut -NMLZR</i>	<i>ANIM.PROX</i>	<i>ANIM.VIS</i>

[[[GENITIVE	POSSESSED N]	COPULA]	Subject]
[[[	NP]	PRED]	S]

'He/she/it is the meat's cutter.'

Although this structural analysis seems straightforward enough, and similar analyses have been made for the Cariban languages of Apalai (Koehn and Koehn 1987) and Hixkaryana (Derbyshire, 1985), speakers of Panare do not seem to use this type of a clause to refer to an objectified event. In fact, Panare speakers translate such clauses into a nonspecific future tense, the Spanish equivalent of the English *gonna* clauses described above.¹¹ It seems that the functional shift of Panare *-ñe* from nominalizer to aspect marker has already taken place. If Panare speakers do, in fact, conceive of the verb bearing *-ñe* as the main verb in the clause, then I hypothesize that the structure of the clause shown in 15 must have undergone a change to reflect the extension of the old form to the new function. I hypothesize that when the verb bearing *-ñe* functions as a main clause verb, then the structure of the sentence must actually be that given in 16.

(16) Main verb with auxiliary support

<i>aire'</i>	<i>chikitëñe</i>	<i>kěj</i>	<i>měj</i>
<i>aire'</i>	<i>^ -ikitë-ñe</i>	<i>kěj</i>	<i>měj</i>
<i>meat</i>	<i>PO-cut -NONSPEC.T</i>	<i>ANIM.PROX</i>	<i>ANIM.VIS</i>

[[[OBJECT]]	[[[MAIN VERB	AUXILIARY]	] SUBJECT]
[[[NP]	[	V'] VP]	S]

'He/she/it is gonna cut the meat'

The verb *ikitë* 'cut' is now analyzed as the main verb of a main clause, with the pronominal particle *kěj* 'ANIM.PROX' functioning as the auxiliary. For clarity, I refer to the class of verbs created in this way as less finite verbs. The noun *aire* 'meat' is now reanalyzed as a direct object of the less finite verb rather than as a genitive of the derived nominal. The morphosyntax of the genitive construction has extended its function as well, so that it is now used to indicate the direct object of a less finite verb.

The isomorphism between object of less finite verb and genitive of nominalized verb can be seen in the prefixes in 17 and 18. The 1SG genitive prefix is *0^*-, the 2SG genitive prefix is *a-*, and the 3SG genitive prefix is *yi-*. In 18 the same three prefixes occur to mark the object of a less finite verb.

(17) Set II prefixes refer to the possessor of *mata* 'shoulder'

- (a) *mátan* \varnothing^{\wedge} -*mata-n* 'my shoulder'
 (b) *amatan* *a-mata-n* 'your shoulder'
 (c) *yímatan* *yi-mata-n* 'his/her/its shoulder'

(18) Set II prefixes refer to the object of *petyúma-ñe* 'hit-NONSPECIFIC.Transitive'

- (a) *pétyumañe* *kěyú* *měj*
 \varnothing^{\wedge} -*petyúma-ñe* *kěj* -*yu* *měj*
 1 -hit -NONSPEC.T ANIM.PROX-1SG.OBJ ANIM.VISIB

'He/she/it is gonna hit me.'

- (b) *apetyúmañe* *kěj* *měj*
a-petyúma-ñe *kěj* *měj*
 2-hit -NONSPEC.T ANIM.PROX ANIM.VISIB

'He/she/it is hitting you.'

- (c) *yípetyúmañe* *kěj* *měj*
yi-petyúma-ñe *kěj* *měj*
 3 -hit -NONSPEC.T ANIM.PROX ANIM.VISIB

'He/she/it is gonna hit him/her/it.'

The genitive prefixes can be replaced by a full NP genitive, as seen in 19. The same alternation between object agreement prefixes and full NP objects is seen in 20.

(19) Set II prefixes alternate with the possessor NP plus accent shift

- (a) *yímatan* *yu-^mata-n* 'my shoulder'
 (b) *aměn mátan* *aměn ^mata-n* 'your shoulder'
 (c) *měj mátan* *měj ^mata-n* 'His/her/its shoulder'

(20) Set II prefixes alternate with the "object" NP plus accent shift

- (a) *yípetyúmañe* *kěj* *měj*
yu ^petyúma-ñe *kěj* *měj*
 1SG-PO-hit -NONSPEC.T ANIM.PROX ANIM.VIS

'He/she/it is gonna hit me.'

- (b) *aměn pétyumañe* *kěj* *měj*
aměn ^petyúma-ñe *kěj* *měj*
 2SG PO-hit -NONSPEC.T ANIM.PROX ANIM.VIS

'He/she/it is gonna hit you.'

- (c) *arakon* *pétyumañe* *yu*
arakon ^petyúma-ñe *yu*
 black.monkey PO-hit -NONSPEC.T 1SG

'I'm gonna hit the monkey.'

This isomorphism might suggest to an analyst that in fact these constructions must have the same underlying structure. In further support of that position, there are clear synchronic cases where the suffix *-ñe* is translated as a nominalizer and the logical patient is translated in the genitive case. In 21a the verb *petyúma* 'hit' bears the suffix *-ñe* and the preceding NP *arakon* triggers the accent shift, indicating that it is either the genitive or the direct object. However, with the copular verb *ichi/e* 'be' bearing the perfect aspect *-sa* 'PERF', the clause is translated as a nominalization. In 21b the copula is *aj* AUX. The verb *ikitě* 'cut' bears both the nominalizing suffix *-ñe* and the additional adjectivalizing suffix *-pe* 'AD', which is obligatory on predicate nouns with AUX as the copula. When the suffix *-pe* does not occur in 21c, the clause is rejected. These are clear cases where the suffix *-ñe* derives a nominal from a verb.

(21) *-ñe* as an agentive nominalizer

(a) With the 'to be' Verb in Perfect Aspect.

- arakon* *pétyumañe* *we'cha* *yu*
arakon ^petyúma-ñe *w -e'-sa* *yu*
 black.monkey PO-hit -NMLZR INTR-be-PERF 1SG

'I was the hitter of the monkey.'

(b) With the Defective Verb *aj* as Copula (nominal suffix *-pe* is required)

- aire'* *chikitiñe* *puwaj* *chu*
aire' ^ikitě-ñe *-pe w-aj* *yu*
 meat PO-cut -NMLZR-AD 1-AUX 1SG

'I was who cut the meat.'

(*I was gonna cut the meat)

(c) Ungrammatical Without the Nominal Suffix *-pe*

*arakon pētumañe waj chu
(I was gonna hit the monkey)

The suffix *-ñe* was originally a nominalizer, and in some cases it still expresses a nominalizing function synchronically. The logical patient of the action denoted by a verb is the genitive of the nominal derived when the suffix *-ñe* occurs on the verb. Historically, this nominalizing function represents stage I of the development. The translation given in 16 indicates that the form *-ñe* has extended to express a new function, that of nonspecific future aspect. The genitive morphosyntax which occurred with the historically nominalized form has therefore also extended to express a new function, that of the relationship between a less finite transitive verb and its direct object. These two stages are schematized in 22.

(22) The development of Panare *-ñe* from nominalizer to aspect.

Stage	form	environment	function
I	<i>-ñe</i>	genitive	possessed nominalized verb
II	<i>-ñe</i>	genitive	possessed nominalized verb
			Object with aspect-marked verb

The functional extension which characterizes Stage II of the developmental patterns has been demonstrated synchronically for Panare *-ñe*. Stage II is usually followed by a corresponding formal extension of the kind represented in Stage III--i.e. one of the functions begins to be expressed by a new form, or the two functions are restricted to separate syntactic environments. I suggest that the functional extension of Stage II motivates (in the sense of Lakoff 1987) the formal extension found in Stage III. Thus, although the exact nature of the change cannot be predicted, both common sense and the patterns observed in language acquisition and in the history of English predict that some formal extension will take place in Panare which corresponds to the functional extension seen for *-ñe*.

If the functional extension is very recent, it will be difficult to find syntactic evidence of a formal extension, i.e. that the two functions should be represented by different structures in syntax. I would argue on the basis of the translations alone that Panare speakers have already reanalyzed

-ñe as an aspect marker in certain morphosyntactic environments. However, I am not forced to such an extreme position in this case, because the functional extension occurred long enough ago that some formal changes have also had time to develop.

I will now demonstrate that despite the many similarities, there are three significant FORMAL differences between the morphosyntax of the genitive-possessed nominal (GN) construction (which characterizes the nominalizer function of *-ñe*), and the object-less finite verb (OV) construction (which characterizes the nonspecific future aspect function of *-ñe*). I will suggest a functional motivation for the restriction of each innovation to either the GN construction or to the OV construction.

4 Independent innovations in separate systems.

Three morphosyntactic differences can be observed synchronically between the GN and OV constructions: first, the third person genitive prefix for vowel initial nouns has become *ty-*, but the object prefix for vowel initial less finite verbs remains *y-*; second, genitive prefixes remain referential proclitics, but object prefixes have developed into agreement markers as well; third, a copula is still required in predicate nominal constructions with third person subjects, but an auxiliary has become optional for main clause less finite verbs.

The first difference is easily demonstrated. In 23a the possessed vowel initial noun *uwəj* 'place.CLASSIFIER' occurs as the predicate noun of a predicate nominal construction.¹² The third person genitive prefix is *ty-* '3'. In 23b the vowel initial verb *ikitə* 'cut' occurs bearing the suffix *-ñe*. The third person object prefix for the less finite verb is *y-* '3'.

(23) *ty-* versus *y-* for vowel initial nouns and verbs

- (a) *ty-uwəj mən peraka*
3 -place.CL INAN house
'The house is His/her/its (place).'
- (b) *yikitəñe kəj Tóman*
y-ikitə-ñe kəj Tóman
3 -cut -NONSPEC.T ANIM. PROX Thomas
'Tom is gonna cut him/her/it.'

The *t-* is an innovation in the possessive prefix set, doubtless historically related to the Proto Cariban third person reflexive genitive prefix *t-* (attested in numerous Cariban

languages¹³ but not in Panare). I hypothesize that the development of the 1SG pronoun *yu* into a pro-clitic prefix has created a potentially ambiguous prefix *set--yi-* could refer to either 1SG or to 3SG possessors. Consider the minimally different pair seen above in 17c and 19a (reproduced here as 24a-b). The standard 3SG genitive prefix is *yi-* and the new 1SG pro-clitic is *yi^*. The accent shift (which is not obligatory) is the only formal characteristic which disambiguates the two.

(24) Potential ambiguity between 1SG and 3SG genitive prefixes

- (a) *yimatan yi-mata-n* 'his/her/its shoulder'
 (b) *yimatan yu^-mata-n* 'my shoulder'

There was already a third person *t-* genitive prefix available in the genitive prefix paradigm. As the 1SG proclitic *yi^* replaced the zero prefix for 1SG, the third person reflexive prefix simply extended to replace the ambiguous third person agreement prefix for vowel initial nouns. This extension is complete in the possession of post-positions, where *t-* '3' is the only third person prefix for both vowel initial and consonant initial forms, and *yi-* is recognized only as a 1SG prefix. Although the genitive prefix is still *yi-* on consonant initial possessed nouns, I predict that *t-* will soon become the genitive prefix for all possessed nouns.

However, the same ambiguity exists between the 1SG and 3SG object prefixes for vowel initial less finite verbs. Why didn't the same formal change take place for less finite verbs? In the verbal system there are already three *t-* prefixes, none of which refer to third person (1A past, GNOmic aspect, DETRANS any verb). Thus, if speakers consider verbs bearing *-ne* to be a part of the verbal conceptual domain, a *-t* prefix would not be a natural choice.

A formal change to disambiguate 1SG and 3SG prefixes is functionally motivated in both GN and OV constructions. The reanalysis of the *t-* '3REFL' genitive prefix into a general *t-* '3' prefix is a natural response to that motivation in the GN domain. If we consider verbs bearing *-ne* to be synchronic examples of the GN construction, then the same formal change should have occurred, and we must posit an ad hoc rule to account for the difference. If we recognize that verbs bearing *-ne* are actually a part of the verbal system, then although a formal change of some kind is still motivated, the same formal change as occurred in the genitive system is not motivated.

The second formal distinction between the GN and OV constructions is tied to word order and reference. When a full NP genitive occurs in a clause, it must replace the genitive prefix preceding the possessed NP--it can occur nowhere else in the clause. When a full NP object occurs, it may replace the object prefix, but it may also occur postverbally, in which case the object prefix remains as agreement. This difference can be seen most clearly by following two parallel clauses through a series of transformations. In 25a the genitive NP *Toman* immediately precedes the possessed noun *o'* 'meat.Classifier'.¹⁴ This complex NP is the predicate noun of a predicate nominal clause. In 25b, the object NP *aire'* 'meat' immediately precedes the verb *ikitä* 'cut', which bears the suffix *-ne*. The structure below the clause follows from the assumption that *-ne* is a nominalizer, and demonstrates the parallel between the structures of 25a and 25b if this assumption is true.

(25) Establishing a parallel between GN and OV constructions

(a) A possessed lexical noun as a predicate nominal

Toman	yo'	käj	naro
Toman	o'	käj	naro
Thomas	meat.CL	ANIM.PROX	parrot

[[[POSSESSOR	POSSESSED	COPULA	SUBJECT
[[[	NP	VP	S

'The parrot is Tom's meat.'

(b) The alleged possessed nominalized verb as a predicate nominal

aire'	chikitäne	käj	mäj
aire'	^ -ikitä-ne	käj	mäj
meat	NPG-cut	-NONSPEC.T ANIM.PROX	ANIM.VISIB

[[[POSSESSOR	POSSESSED	COPULA	Subject
[[[	NP	VP	S

'He/she/it is the meat's cutter.'

The same structures are given in 26a-b, but the genitive/object NP has been replaced with the corresponding genitive/object prefix. These structures are precisely parallel to the structures given in 25.

(26) Replacing the NP with a prefix

- (a) With the set II prefix as sole reference to the genitive NP

Tyo' kěj naro
ty-o' kěj naro
3 -meat.CL ANIM.PROX parrot

'The parrot is his/her/its meat

- (b) With the set II prefix as sole reference to the object NP

yipetyúmañe yu
yí-petyúma-ñe yu
3 -hit -NONSPEC.T ISG

'I'm gonna hit him/her/it.'

But the parallel breaks down in 27a-c. In 27a the genitive NP is not allowed to occur at the end of the clause. Either the genitive NP precedes the possessed noun (in place of a prefix) or the genitive prefix is the sole reference to the identity of the possessor. In order to place a genitive NP to the right of the possessed noun, an entire predicate afterthought must occur with it. Thus in 27b, the full predicate *Toman yo' kěj* 'is Tom's meat' occurs at the end of the clause. In contrast, the object of a verb bearing *-ñe* is allowed to occur postverbally in 27c.

(27) The postverbal object versus the afterthought genitive

- (a) The genitive NP may not occur to the right of the predicate...

*tyo' kěj naro Toman
ty-o' kěj naro Toman
3 -meat.CL ANIM.PROX parrot Thomas

(the parrot is Tom's meat)

- (b) ...unless the full predicate is repeated

tyo' kěj naro Toman yo' kěj
ty-o' kěj naro Toman o' kěj
3 -meat.CL ANIM.PROX parrot Thomas meat ANIM.PROX

'The parrot is his meat, is Tom's meat.'

- (c) The object NP is free to occur postverbally

yikitəñe kěj měj aire'
y-ikitə-ñe kěj měj aire'
3-cut -NONSPEC.T ANIM.PROX ANIM.VIS meat

'He/she/it is gonna cut the meat.'

This synchronic distinction is the result of an innovation in the OV construction which has not been duplicated in the GN construction. Objects of finite verbs have freedom to appear postverbally (cf §2.1.2); once verbs bearing *-ñe* are conceptually treated as verbal constructions rather than as derived nominals, it is natural that objects of these verbs should develop the same word order privileges as objects of finite verbs. However, there is no motivation for the GN construction to undergo a similar change. Once again, a synchronic distinction between the GN and OV constructions is functionally motivated; once again, an ad hoc rule must be posited to account for the distinction if the *-ñe* is treated as a nominalizer synchronically.

The final distinction I discuss is found primarily in discourse, but can also occur in elicited examples from some speakers. A copula is absolutely required in a predicate nominal construction with a third person subject (cf §2.2). Verbs bearing *-ñe* appear regularly in discourse without an auxiliary for third person subjects. In elicitation such sentences were not readily accepted by all language consultants unless it was clear that the sentence was taken from a narrative text.¹⁵ In 28 the verb *petyúma* 'hit' bears the suffix *-ñe*. The object NP *arakon* 'monkey' occurs preverbally and the subject NP *Toman* occurs postverbally. Although this sentence might be considered 'better' with the auxiliary *kěj* 'ANIM.PROX', it is acceptable without.

(28) arakon petyúmañe Toman
arakon ^ -petyúma-ñe Toman
black.monkey PO-hit -NONSPEC.T Thomas

'Tom is gonna hit the monkey.' (future)

'Tom hit the monkey' (past)

The two translations were offered by different language consultants: the first translation reflects what the meaning would be with a present auxiliary like *kěj*. This translation might represent an extension of the first and second person present tense auxiliary, \emptyset , to third person subjects as well. The second translation reflects the understanding that *-ñe* is being used in a narrative, where the action has already taken place at some time

in the past. Presumably in narrative the action is grounded in a particular time frame right from the beginning, and the use of auxiliaries to fix the time of each action would be redundant.

5 Conclusion

The suffix *-ne* in Panare was historically an agent nominalizer. At some point in the history of Panare, speakers began to conceive of verbs bearing *-ne* as indicating an action rather than referring to an objectified attribute. This point in time represents Stage II in the historical development of the form. If the concept of syntactic structure is to be linked to meaning, then speakers--at least the next generation of speakers--must have developed independent subconscious structural representations for these two meanings. This leads to the formal change seen in Stage III. The data presented in this paper support the hypothesis that once two functions are considered to have independent morphosyntax, that morphosyntax evolves independently, as independent 'daughter' structures of one historical 'mother' structure. In synchronic Panare the morphosyntax of the nominalizer *-ne* and the verbal aspect suffix *-ne* have developed independent innovations, such that one function is associated with one set of morphosyntactic behaviors and the other function is associated with another set of morphosyntactic behaviors. The hypothesized characteristics of the 'mother' construction are listed below. The characteristics of the synchronic 'daughter' GN and OV constructions are listed separately below that.

HISTORICAL GENITIVE/PREDICATE NOMINAL MORPHOSYNTAX

- genitive prefixes alternate with genitive NP
- Predicate-S order, genitive NP cannot be postposed
- Copula obligatory for third person subjects

SYNCHRONIC GN

- prefix *y-* --> *t-/___+ V*,
- Set II prefixes still refer
- Pred-S order, no postposing
- copula required for 3rd person S

SYNCHRONIC OV

- **t-*; *y-* '3' remains
- Set II prefixes agree
- OVS, VSO alternation
- copula optional

Though none could have been predicted in advance, each of these structural innovations are motivated by some functional principle. The forms which the innovations took actually depended on the forms which already existed in the language. Thus, the third person genitive prefix was replaced with a pre-existing third person reflexive genitive prefix; the less finite verbal clause developed freer word order to parallel the word order freedom which already existed in finite main clauses; even the lack of a copula could be based on a pre-existing pattern, as 1SG and 2SG subjects are free to occur in predicate nominal clauses without copulas. In sum, the development of *-ne* in Panare conforms to the pattern of language development described at the very beginning of this paper, and the functional motivations described for each innovation in Panare may in turn reflect on more general functional principles, perhaps motivating the patterns of change which we observe.

ENDNOTES

1. All examples in this paper were gathered in Caicara de Orinoco, Estado Bolívar, Venezuela in elicitation sessions with Pragedes Salas (PS), Miguel Castillo (MC), Manuel Castro (MK), and Rafael Moncala (RM). None of the examples in this paper are from natural text, although I have consulted some texts while formulating hypotheses. The investigation was supported in part by the National Science Foundation, grant number BNS-8609304, and conducted under the auspices the Universidad Católica de Táchira in Venezuela and the Linguistics Department of the University of Oregon. Many thanks to Tom and Doris Payne for giving me the opportunity to go to Venezuela, and for the hours spent talking through the data. Thanks also Tom Givón and Scott Delancey for comments on an earlier version of this paper. All mistakes are my own.
2. I do not have the data, but I hypothesize that only volitional verbs were allowed in this construction originally. Only later, as the future meaning became more established and the volition inherent in going somewhere faded, stative verbs could appear in the construction as well: *I'm going to be sick*.
3. Due no doubt to the influence of written English, where *gonna* is still represented as *going to*.
4. The following examples from Vesser (1966) illustrate uses of *-ing* at Stages I and II in historical English. Stage I examples are from the 13th and 14th Centuries, Stage II &

III examples are all from the 15th Century, and Stage IV examples are from Modern English (my own speech).

In particular, when the underlined verbs in Stage I examples bear *-ing* and *-unge*, adjectives precede the derived nominals, they also bear the plural *-s*, and the logical direct object of the verb appears in a prepositional 'of phrase'. In Stage II, the underlined verbs clearly function to refer to ongoing events. Yet, the syntax of the original nominalizing function still occurs with the new verbal function. Thus, the determiners *an* and *a* still precede verbs, and direct objects of the verb may still appear in 'of phrases'. By stage IV, such nominal morphology is no longer allowed with the verbal function.

I 'false scheauwunges and dredful offerunges' (1225)
'a great coming of angels' (1350)

II & III 'He was in the forest an huntunge' (1470)
'...whyle the turnement was adoynge' (1470)
'He is building of a house' (1414)
'I am doynge of my nedynge' (1475)

IV 'Finally, there was a balancing of accounts.'
'I was balancing accounts.'
*I was a balancing of accounts

5. Apalai (Koehn & Koehn 1986), Carib of Surinam (Hoff 1968), Hixkaryana (Derbyshire 1985), and Waiwai (Derbyshire pc).
6. They do not, however, have identical morpho-phonemic characteristics--some verb stems have two forms, a long form and a short form, which alternate depending on the phonemic structure of the suffix which appears on the verb (Matei-Muller 1981, T. Payne, pc). The short forms of the verb stems appear with the suffixes *-yaj* and *-yake*, and the long forms appear with *-i/-e*. Below, the verb *u/utu* 'to give' appears with each of the three, taking the truncated form *u* with *-yaj* and *-yake* and the long form *utu* with *-i/-e*:

<i>-yaj</i>	tu'chaj chu mu'chaj amën nu'chaj kën	'I gave' 'you gave' 's/he gave'
<i>-i/-e</i>	tutui yu mutui amën nutui kën	'I gave' 'you gave' 's/he gave'

<i>-yake</i>	tu'yake yu mu'yake amën nu'yake kën	'I gave' 'you gave' 's/he gave'
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7. I call *i* more generic, because it is the vowel which most frequently appears epenthetically when consonant prefixes appear on consonant initial verbs.
8. I use AUX as a label for a particular class of these forms, namely the defective verb *aj*; later I will use the term auxiliary as a more inclusive label for the set of forms which act as auxiliaries for less finite verbs: pronominal particles, AUX, and the verbal copula (COP).
9. But this is too simplistic of a characterization. For a more detailed look at the meanings of AUX, see Gildea (1989).
10. This same lexical item appeared earlier without the word final glottal stop. One language consultant, PS, never put the glottal stop on *sira* 'meat'. A second, MC, varied. All examples with the glottal stop were produced by MC, and those without could be by either PS or by MC.
11. i.e. 'El va a cortar la carne.'
'He's gonna cut the meat.'
12. For a further discussion of genitive classifiers in general, and Panare genitive classifiers in particular, see Carlson and Payne, this volume.
13. Apalai (Koehn & Koehn 1986), Carib of Surinam (Hoff 1968), Hixkaryana (Derbyshire 1985), Carina (Mosonyi 1982) and Makushi (Williams 1932, Carson 1982).
14. See note 11.
15. Price (pc) reports that for the dialect of Panare which she studies, auxiliaries never occur in narrative discourse, but that they are absolutely required in conversational discourse.

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