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The Legacy of Recycled Aspect

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Advances in our knowledge of grammaticization processes have led us to both a better understanding of the forces that shape grammatical systems and a finer sensitivity to the nature of the systems themselves. A fruitful area of investigation along these lines, as shown by the work of Bybee, Perkins, & Pagliuca (1994) and others, has been in the domain of grammatical aspect. A good example of what we can learn from such investigation is offered by Central Pomo, a language of the Pomoan family of California.

Central Pomo is spoken approximately 100 miles north of San Francisco in three communities: the Point Arena-Manchester Rancheria on the coast and the Hopland and Yokaya Rancherias about 40 miles inland. The language exhibits no distinction between past and present tense, but it does contain a rich aspec
tual system. Among the inflectional aspect categories distinguished are imperfective, perfective, progressive, continuative, habitual imperfective, habitual perfective, and frequentative. What is surprising is that all of these markers are composed of segments drawn from a very restricted set of sounds.

(1) Some Central Pomo aspec
tual distinctions
1. Imperfective -an
2. Perfective -w
3. Progressive -wan
4. Continuative -(h)duw
5. Habitual imperfective -adan
6. Habitual perfective -(h)duwan
7. Frequentative -(h)duwadan

At first glance, the suffixes appear to be formed from a set of only four consonants: n, d, w, and h. The set is actually even smaller; the n is denasalized to d intervocalically and the w appears as h before an obstruent.

The suffixes are thus formed from just two basic consonants: n and w. Only two vowels are involved: a and u. The phonological parsimony of the
system is all the more surprising against the overall inventory of the language: 30 consonants and five vowels. We know that phonological segments may decrease in markedness over time, so that affixes may not always reflect the full inventory of the language. This case, however, seems extreme.

The shape of the paradigm becomes understandable once it is identified as the product of successive layers of development involving a recycling of the same suffixes. Evidence for the fact that the system was built up in stages comes from slight idiosyncrasies in the forms of the suffixes in the various layers and differences in their positions within the verbal morphology.

1. The durative

A durative suffix was apparently grammaticized relatively early in the development of the Pomoan verb. Oswalt (1976:24) reconstructs it for the Pomoan family as a whole. Its use in Central Pomo can be seen by comparing the two verbs in (2). The material cited here comes primarily from conversations among speakers from all three communities: Mrs. Frances Jack and Mrs. Alice Elliott of the Hopland Rancheria, Mrs. Salome Alcantra and Mrs. Florence Paoli of the Yokaya Rancheria, and Mr. Jesse Frank and Mrs. Eileen Oropeza of Point Arena. The free English translations are from Mrs. Jack.

(2) a. ē. ēh-ʔ6l-či-w.
   hair flowing-summon-REFL-PFV
   ‘He combed his hair.’

b. ē. ēh-ʔ6l-ʔ6n-či-w
   hair flowing-summon-DURATIVE-REFL-PFV
   ‘He combed his hair, taking his time.’

(Third persons are not identified overtly in every sentence in Central Pomo, and gender is not distinguished. Translations reflect the full context of the originals.)

The suffix shows certain alternations in shape. Its basic form can be reconstructed as -*a-nu-. The initial a remains after consonants, as in ēh-ʔ6l-an- > ēh-ʔ6l-an-. It merges with the preceding stressed high vowels, as in pʰdǐ-an- > pʰdɛ-n-. It disappears after mid and low vowels. The length of the initial vowel is variable, depending on the prosody of the word. The n appears as d intervocally: -a-du-. This denasalization does not occur elsewhere in the morphol-
ogy, as can be seen from such words as nána-n 'be unable'. The final u appears only before consonantal suffixes for syllabification purposes; it is retained in the singular command below, for example, but not in the plural.

(3) a. Ph-d6-\-m.
   visually-take-DURATIVE-SG.IMPERATIVE
   'Watch!'

b. Ph-d6-n-ma-me?.
   visually-take-DURATIVE-MULTIPLE.AGENCY-PL.IMPERATIVE
   'Watch, everyone!'

Several structural features of the durative suffix are of note. First, it precedes the multiple agency suffix, as can be seen in (3b), and the reflexive suffix, as in (4b).

(4) a. Mú-\-u    Ph-d6-n.
    3.PAT visually-take-DURATIVE
    (He) was watching/taking care of her.'

b. Mu-l    Ph-d6-n-či-w
    that visually-take-DURATIVE-REFL-PFV
    'She takes care of herself.' or 'She is waiting.'

Second, it shows the same basic shape in verbs with singular and plural subjects.

(5) Mú-nya    Ph-d6-n-\-ma-w.
    3.PL visually-take-DURATIVE-REFL-MULTIPLE.AGENCY-PFV
    'They take care of themselves.' or 'They are waiting.'

The durative suffix occurs in a number of verb stems in the language, but it is apparently no longer productive in this position. Durative verbs coined by analogy to those already in existence are not generally recognizable to speakers.

2. The imperfective/perfective distinction

Every Central Pomo verb is distinguished for basic aspect: imperfective or perfective. The imperfective aspect is used to indicate some internal temporal structure, while the perfective is used for events portrayed as single, unana-
lysable wholes. Examples of the difference can be seen in the pairs in (6) and (7).

(6) a. Mâ- =tel ča-ló- č-an, čk-é čb'-w.
   earth=the dry-INCH-IMPFV rain not-PFV
   ‘The ground is drying up; there’s no rain.’

   b. Bal ča-ló-č má-tel
   this dry-INCH.PFV earth=the
   ‘The ground dried up.’

   always 1.PAT order-IMPFV
   ‘(She)’s always asking me to do things.’

   b. M-khê=ya ḥo- diy.
   my-mother=TOPIC 1.PAT order.PFV
   ‘My mother told me to.’

The suffix morphology distinguishes every verb as either imperfective or perfective. Many verb roots may be inflected directly as either, like diy ‘order’. Some are directly inflected only as imperfective (yhe- ‘be doing’), while others are inflected only as perfective (qô-w ‘drink’). Derivational suffixes may affect aspect. The directional suffix -an ‘around’, for example, indicates movement around here and there, and occurs with imperfective inflection: čâ-ran run-around-IMPFV ‘(s/he) ran around, here and there’. The suffix -mli- ‘around’ indicates motion around a point, and occurs with perfective inflection: čâ-mli-w run-around-PFV ‘(s/he) ran around (it)’.

2.1. The imperfective

The uses of the Central Pomo imperfective correspond relatively well to those cited as typical of imperfectives cross-linguistically. Comrie (1976:24) defines imperfect aspect as “viewing the situation not as a bounded whole, but rather from within, with explicit reference to its internal structure”. Bybee, Perkins & Pagliuca adopt his description, adding: “In more concrete terms, an imperfective situation may be one viewed as in progress at a particular reference point, either in the past or present, or one viewed as characteristic of a period of time that includes the reference time, that is, a habitual situation” (1994:125-126).

The Central Pomo imperfective is used in just these situations. A progressive use can be seen in (8) and a habitual use in (9).
The shape of the imperfective suffix is of special interest: it is essentially the same as that of the durative: -a-du-. It also shows the same idiosyncratic alterations in form, with the initial a combining with certain preceding vowels and disappearing after others, vowel length varying according to prosodic context, n denasalized to d intervocalically, and u appearing only in certain syllabic contexts. The suffix differs in two small ways, however. First, it will be recalled, the earlier durative precedes the multiple agency suffix and the reflexive. The imperfective follows them.

Second, the imperfective suffix shows an altered shape in verbs with plural subjects. A palatal element is added, yielding -a-ci-, as can be seen by comparing (12a-b).

The imperfective suffix appears to be the result of a generalization of the older durative marker. It shows the same shape as the earlier durative, as well as the same idiosyncratic phonological alternations. Its meaning includes that...
of the older durative but is more general, covering progressive and habitual uses as well. The markers are now clearly distinct, however. The imperfective occurs later in the verb, further from the root than the durative, and it shows a special form with plural subject.

2.2 The perfective

The perfective aspect is formally unmarked with verb stems ending in consonants (dlf ‘order’) but a suffix -w appears following vowels (bayi-w ‘teach’). (All obstruents are automatically glottalized word-finally: čalóč ‘dried up’). For the most part, the functions of the Central Pomo perfective match those observed for perfectives in other languages. Comrie (1976:4) observes that perfectives present the totality of the situation referred to without reference to its internal temporal constituency: the whole of the situation is presented as a single unanalysable whole, with beginning, middle, and end rolled into one; no attempt is made to divide this situation up into the various individual phases that make up the action ... The perfective looks at the situation from outside, without necessarily distinguishing any of the internal structure of the situation.

The Central Pomo perfectives čalóč ‘dried up’ and dlf ‘ordered’ in (6b) and (7b) each portray an event as a whole without specification of internal temporal structure.

The Central Pomo perfective aspect also appears with another set of verbs, those representing states.

(13) a. Mi=da napbó-w.
  that=at sit.PL-PFV
  ‘(They) live there.’

b. jo dá-w.
  1.PAT like-PFV-IMPFV
  ‘I like it’.

In many languages, statives are classified as imperfective. Yet if perfectives “present the totality of the situation referred to, without reference to its internal temporal consistency, and the whole of the situation is presented as a single, unanalysable whole” (Comrie 1976:4), then they should be perfectly appropriate for statives. States, even more than events, are characterized by a lack of internal temporal structure. Why, then, would states be classified as imperfective in any language? A second characteristic is sometimes attributed
to perfectives, that of boundedness (Bybee et al. 1994:54). They portray a situation as temporally bounded, complete with beginning and end. As Bybee et al. point out, this feature is sometimes attributable to their diachronic sources: adverbial ‘bounders’, like the ‘up’ of English ‘eat up’ or similar prefixes in Slavic. As they note, however, not all perfectives are derived from bounders. In fact the Central Pomo perfective seems to have come into existence in a different way.

Several kinds of evidence indicate that the development of the Central Pomo imperfective suffix predates that of the perfective. The first is comparative. The imperfective has cognates in every language within the family (termed “durative” in Oswalt 1976), but the perfective (“absolutive” in Oswalt 1976) appears in only one branch, Western-Pomo, consisting of the Kashaya, Central Pomo, and Southern Pomo languages. The second kind of evidence comes from patterns of co-occurrence. The imperfective suffix appears before a number of suffixes and enclitics, including imperatives (14), the conditional (15), and various subordinators (16).

(14) tém čanó-duk-m.
    slow talk-IMPFV-IMPERATIVE
    ‘Talk slowly!’

(15) čanó-ŋ=na=
    talk-IMPFV-COND
    ‘He could talk’.

(16) ʔa- ̣ ʔwéni ̣ ʔh-má-duk-n, ...
    1.SG.AGT yesterday sitting-cross-IMPFV-as
    ‘As I was riding [the bus home] yesterday ...’

The imperfective also appears before the causative. The resulting verb is then inflected as a whole for aspect.

(17) ʔáwhel yhé-ŋ-ka-w ̣ ʔá-ʔ-du-w ̣ ʔh-n.
    work do-IMPFV-CAUS-PFV want-REFL-IMPFV-PFV no-IMPFV
    ‘He didn’t want to allow her to work.’

Perfective markers, by contrast, do not appear before these suffixes and enclitics. The perfective form of the verb ‘go’, for example, is yó-w, but the perfective aspect remains unmarked before the causative in (18), even though the meaning would be perfective.
Finally, the perfective is formally unmarked with a large proportion of verbs, all those with consonant-final stems. The imperfective thus appears to have developed first, presumably from the earlier durative. Statives would not have been marked with it because they are devoid of internal temporal structure. After the marker became more generalized, the unmarked verbs were reinterpreted as an opposing category: perfective.

3. Imperfective statives

The possibility of adding markers to stems already inflected for aspect has itself had a substantial effect on the development of the aspectual system. As seen earlier, states are categorized as perfectives in Central Pomo on the basis of their lack of internal temporal texture. Such texture can be introduced by the addition of an imperfective suffix to an already perfectly marked stative verb.

\[(19)\]
\[
\begin{align*}
\text{a. } & \text{to-} \text{dá-w.} \\
& \text{1.PAT like-PFV} \\
& \text{I like it.}
\end{align*}
\]
\[
\begin{align*}
\text{b. } & \text{to-} \text{dá-w-an.} \\
& \text{1.PAT like-PFV-IMPFV} \\
& \text{I like it.}
\end{align*}
\]

Although Central Pomo verbs are not inflected for past or present tense, an enclitic -a, part of the evidential system, can add a sense of immediacy. Its effect on statives and their imperfectives can be seen in (20).

\[(20)\]
\[
\begin{align*}
\text{a. } & \text{to-} \text{pé-su dá-w=a.} \\
& \text{1.PAT money like-PFV=IMMEDIATE} \\
& \text{I need money.}
\end{align*}
\]
\[
\begin{align*}
\text{b. } & \text{šjö re to-} \text{dá-w-ad=a.} \\
& \text{now COP 1.PAT like-PFV-IMPFV=IMMEDIATE} \\
& \text{I’m getting to like it.} \quad \text{(I’m just now liking it.)}
\end{align*}
\]

The components of the complex ending -w-an (PERFECTIVE-IMPERFECTIVE) are traceable in the meaning of this aspectual complex: the stative has acquired in-
ternal temporal structure with the addition of the imperfective marker, resulting in a progressive.

4. Continuatives

Another aspectual distinction has been created by the addition of an extra aspectual marker to verbs already inflected for aspect. Perfective verbs may be followed by an imperfective marker and then another perfective: PERFECTIVE-IMPERFECTIVE-PERFECTIVE. The result is a continuative. (The perfective w is reduced to h before a consonant.)

(21) a. Mú-tu 'a· qʰdi-č.
   3.PAT 1.AGT fetch-REFL.PRF
   'I motioned to her to come.'

b. Mu'-l qʰdi-ʔ-du-w...
   3 fetch-REFL.PFV-IMPFV-PFV
   'He kept calling her.'

(22) a. Ph-wi-w.
   visually-perceive-PFV
   'He saw it.'

b. Ph-wi-h-du-w.
   visually-perceive-REFL.PFV-IMPFV-PFV
   'He sees it continually.' (He sees the sun every day.)

Stative verbs, also categorized as perfectives in Central Pomo, may also be inflected as continuatives in this way.

(23) a. Mi=da napʰ-o-w.
    that=at sit.PL-PFV
    '(They) live there.'

b. Ya čalél dú-šo'q napʰ-o-č-i-w.
    1.PL.AGT just silent sit.PL-PFV-PL.IMPVF-PFV
    'We just stay here and keep our mouths shut.'

The semantic contribution of each of the constituent morphemes of this complex suffix is still discernible. An event or state viewed as an undifferentiated whole (perfective) is first given internal temporal texture with an imperfective. This combination is then given new unity with the addition of another perfective suffix. Bybee et al. note the progressive component in continuatives:
“Continuative includes progressive meaning — that a dynamic situation is on-going ... Continuative is the meaning of ‘keep on doing’ or ‘continue doing’,” (1994:127)

The precise shape of the constituent morphemes of this continuative complex indicates that the formation was built up in stages over time. The imperfective element has a slightly different shape than in previous formations. While the durative and basic imperfective show an initial vowel after consonants (-a-du-), the imperfective element in this combination contains no initial vowel: -h-du-w. As can be seen in (23b), however, the palatalization for plural subjects that appeared with the basic imperfective, though not with the earlier durative, persists here as well (-h-du-w/-h-či-w).

5. Habitual imperfectives

As seen in earlier sections, the imperfective suffix adds some kind of internal temporal texture to events and states. Basic Central Pomo imperfectives cover both progressive and habitual aspects. An additional imperfective suffix may be added to such verbs to specify added internal structure. The resulting imperfective-imperfective sequence overtly indicates that an imperfective activity is itself recurring, that is, repeated habitually. The comments from Mrs Oropeza in (24) shows a basic imperfective in the first line and a marked habitual in the second.

(24) Darnell ʧika ʧa-nó-ni.
       in.fact talk-IMPFV

       ‘Darnell talks Indian.

       Mu-č le ʧo- ʧa-nó-č-č-an.
       that COP 1.PAT talk-IMPV-IMPV

       He’s the one that talks to me’.

Both segments of this habitual imperfective complex show palatalization with plural subjects, just like the basic imperfective.

(25) kúči-ya wá-lsa-wi ʧ-dé-t-či-č-n
       children=TP pocket=in dangling-take-MU.EV-IMPFV.PL-IMPFV.PL-as

       ‘Children would pack those little fish around in their pockets

       mu-č qa-wá-č-č-ač mu-č šá kúči-č=čel.
       that biting-go-PL.IMPVF-PL.IMPVF that fish little-PL=the
       and eat them like popcorn.’
Like basic imperfectives, habitual imperfectives are used for both present and past time.

(26) *Bal q₃=ʒel,*
    this water=the
    'This creek,
    *f₇=du- nₑ-q₉=ad-an ĉ₄-w=wa m₁ l q₄=atsₐʃā=da?*
    lots flow-up-IMPFV-IMPFV not-PFV=Q that winter=at
doesn’t it get high in the wintertime?'

(27) *sₑ-mi m₃lā ḫ₈a=ṣ-l=ad-an ḫe.*
    long.ago food fry-IMPFV-IMPFV COP
    'I used to fry everything.'

6. Habitual perfectives

Still another aspectual distinction may be made with the addition of the same marker. Habitual perfectives are formed from basic perfectives by the addition first of an imperfective suffix, then a perfective suffix that packages the event as a discrete whole, and finally a second imperfective suffix to introduce further temporal structure.

(28) *Mu₁ l₃q=ʒel tika*
    that thing=the actually
    'Actually that thing [a mussel],
    *m=f₃=ʒel ḫ₉-h-d₉-w=an=da*
    heating-sense=the do-PFV-IMPFV-PFV-IMPFV=when
    when the sun hits it,
    *h₃=ḥ-d₉-w=an.*
    open-PFV-IMPFV-PFV-IMPFV
    it opens up.'

As perfectives, statives may also be inflected for habitual perfective aspect.
Sometimes the leaves are long on the tips.’

Like the other aspect markers, the habitual perfectives do not distinguish tense. They are used for recurring events characteristic of present or generic time, as in (28) and (29) above, as well as for past time as in (30).

(30) *Mu-l qa-ke-ca-w=el*  
that biting-stick-CAUS-PFV=the  
‘What he caught  
*Re-dí=h-du-w-an*  
1.AGT dangling-take-PFV-IMPFV-PFV-IMPFV COP  
I would take home.’

Like the habitual imperfective, the habitual perfective was built up diachronically, as indicated by the special form of the first imperfective component -du-. All imperfective components of the habitual perfective show palatalization with plural subjects, however.

(31) *Bé=da=wa... čá-č*  
this=at=Q person absent-INC-PFV-IMPFV-PFV-IMPFV=when  
‘When someone dies here,  
*Re-y=wa Re=mu-l čá-č*  
where=Q COP=that person  
where  
iP-bún-h-či-w-ač?  
working-dig-PFV-IMPFV.PL-PFV-IMPFV.PL  
do they bury them?’

7. Frequentatives

Still another inflection is formed with the addition of an extra imperfective marker. A frequentative was formed by qualifying the habitual perfective (PERFECTIVE-IMPERFECTIVE-PERFECTIVE-IMPERFECTIVE) with yet another imperfective marker.
(32) Wá-ymin=wa ma lé-y=yo-h-du-w-a-d-an?
often=Q 2.AGT away=go PFV-IMPFV-PFV-IMPFV-IMPFV
‘Do you go away a lot?’
(33) Mú-tuya ʔa- šé-mi
3.PL 1.AGT long.ago
‘I used to talk to him all the time.’

All imperfective elements of the frequentative string, like those of other complexes involving imperfective markers, show palatalization with plural subjects.

(34) Si-n=wa=ka meš masá-n=ya,
how-IMPFV=Q=INFERENTIAL such White=TOPIC
‘What is it that White people are always saying?’ [‘First born’?]

As in the other complex aspectual inflectional endings, the individual semantic contribution of each component is still discernible. The surface form (HABITUAL + IMPERFECTIVE) reflects the characterization of frequentatives proposed by Bybee et al. (1994:121): “Frequentative includes habitual meaning — that a situation is characteristic of a period of time — but additionally specifies that it be frequent during that period of time”.

8. Implications of the Central Pomo system

An understanding of the diachronic development of the Central Pomo aspectual system can both widen our understanding of the processes that shape grammar and explain the idiosyncrasies of the Central Pomo system itself.

Several familiar processes of grammaticization can be seen in the development of the aspectual system. The first is the increasing functional generalization and distribution of a grammatical affix, observable in the evolution of a derivational durative suffix into a general imperfective suffix. Possible lexical
origins of the suffix are no longer discernible, but an antecedent of the durative suffix could be a Proto-Pomoan directional suffix reconstructed by Oswalt as *-.d ‘along, in one direction’.

A second process involves the creation of a category by the grammaticization of a contrasting marker. Sometime after the Proto-Pomoan imperfective marker had been generalized, verbs unmarked for imperfective aspect were interpreted as perfectives.

Most of the aspectual system was built up by a different process, however: the repeated application of the same morphological material for successive qualification of the aspectual space. Each addition of an imperfective suffix indicated further internal temporal structure, and the addition of a perfective suffix packages each complex as a unit. The resulting categories are as in (35).

(35) Inflectional aspect suffixes

<table>
<thead>
<tr>
<th>Aspectual Type</th>
<th>Suffixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperfective</td>
<td>IMPFV</td>
</tr>
<tr>
<td>Habitual imperfective</td>
<td>IMPFV-IMPFV</td>
</tr>
<tr>
<td>Perfective</td>
<td>PFV</td>
</tr>
<tr>
<td>Imperfective stative</td>
<td>PFV-IMPFV</td>
</tr>
<tr>
<td>Continuative</td>
<td>PFV-IMPFV-PFV</td>
</tr>
<tr>
<td>Habitual perfective</td>
<td>PFV-IMPFV-PFV-IMPFV</td>
</tr>
<tr>
<td>Frequentative</td>
<td>PFV-IMPFV-PFV-IMPFV-PFV</td>
</tr>
</tbody>
</table>

This successive qualification differs from other more commonly observed processes of grammaticization. It contrasts with a process termed renouvellement by Meillet (1915-6 [1958: 159-74]) or renewal, "the tendency for periphrastic forms to replace morphological ones over time" (Hopper & Traugott 1993:9). An oft-cited example of this process is the replacement of Latin cantabimus 'we will sing' by the periphrastic cantare habemus. In the development of the Central Pomo aspectual system, the new forms are not periphrastic, and, furthermore, they do not replace the old, but are added to them.

A special type of renewal has been termed reinforcement (Hopper & Traugott 1993:121-2), whereby the new form contains material cognate with the old. An example of reinforcement can be seen in languages of the Iroquoian family. Here an earlier reflexive prefix -at- was also used for middles. Over time, as the middles became lexicalized and underwent semantic shift, the prefix lost some of its semantic transparency: *at-yɛ ‘self-set’ = 'sit' but *-at-kahθo- ‘self-X’= ‘look’. The productive reflexive has now been reinforced to -atat-: atat-kɛ ‘self-see’ = ‘see oneself’. A similar process in Surselvan (Rhæto-Romance) is noted by Kemmer (cited by Hopper & Traugott
The development of the Central Pomo aspectual system differs from standard reinforcement as well, however. There is no evidence that the layering of imperfective and perfective markers was stimulated by a functional weakening of the original suffixes. The imperfective alone never had a specifically habitual or frequentative sense that required reinforcement; extra aspectual suffixes were added to already inflected verbs to produce more specialized meanings, not to reinforce old ones.

The earlier Pomoan inflectional suffixes have in fact remained constant in meaning even when new distinctions entered the system. Imperfectives, for example, still cover a range of ongoing situations, including both progressive and habitual action, even though a specifically habitual marker has entered the system. The imperfective without further suffixation remains unmarked for the habitual/progressive distinction.

This lack of semantic narrowing means that speakers have choices concerning the degree of precision they wish to express: an habitual activity may be described either with a simple imperfective or a specifically habitual imperfective. Similarly, a frequently recurring event may be described either with an habitual perfective or a frequentative. The fact that choices are available to speakers became evident as Mrs Jack and I transcribed tape-recorded conversations together. The recordings were of natural conversation, with multiple participants, in animated social settings. The help of an astute native speaker like Mrs. Jack for transcription was crucial to the task, a person who could supply not only obscured sounds but whole syllables, words, and even phrases. Every so often an aspectual form she supplied on the first hearing turned out not to have been the one originally chosen by the speaker. In each instance, either would have been appropriate in the context. Certain pairs of forms were interchanged frequently:

<table>
<thead>
<tr>
<th></th>
<th>Imperfective</th>
<th>Habitual imperfective</th>
<th>Continuative</th>
<th>Habitual perfective</th>
<th>Habitual perfective</th>
<th>Frequentative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IMPFV</td>
<td>IMPFV-IMPFV</td>
<td>PFV-IMPFV-PFV</td>
<td>PFV-IMPFV-PFV-IMPFV</td>
<td>PFV-IMPFV-PFV-IMPFV</td>
<td>PFV-IMPFV-PFV-IMPFV-IMPFV</td>
</tr>
</tbody>
</table>

Members of each pair differ only in the presence of an extra imperfective marker. The absence of this marker simply means that further temporal struc-
ture remains unspecified. An example of such a choice can be seen in the following comment from Mrs. Paoli.

(37) \( \text{käšá-} \text{ña} \quad \text{čanú=} \text{tel} \quad \text{ʔ=doma}, \)

Kashaya word=the COP=HEARSAY

'The Kashaya language, they say,

\( \text{tī-} \text{ya=} \text{ʔkē há} \quad \text{min} \)

EMP-PL=POSS mouth like

sounds like

\( \text{ba-} \text{jä-w-a-d-an} \quad \text{hiča-qač} \)

orally-sense-PFV-IMPFV-PFV-IMPFV say

their language . . .

\( \text{ʔä-kay mēn ba-} \text{jä-} \text{-} \text{ʔ-} \text{du-w-a-d-an.} \)

I.AGT=too so orally-sense -REFL.PFV-IMPFV-PFV-IMPFV-IMPFV

I also hear it that way.'

On the first pass, Mrs. Jack heard the verb in the fourth line as a habitual perfective, \( \text{ba-} \text{jä-} \text{ʔduwan} \). On the second hearing, she realized that the frequentative had been used, \( \text{ba-} \text{jä-} \text{ʔduwa-dan} \). Asked about the difference between the two forms, she replied, "Not much difference, no, lots of difference. Could use either."

In addition to its value for adding to our understanding of diachronic processes, the Central Pomo aspectual system sheds light on the kinds of hierarchical semantic relations that may obtain between aspectual categories. Frequentatives are expressed as habitual perfectives with additional temporal structure, for example. Habitual perfectives are expressed as continuatives with further internal temporal structure. Continuatives are expressed as progressives packaged as single events by means of a perfective. Habitual imperfectives are expressed as imperfectives with further internal temporal structure. The formal relationships among the categories accord in interesting ways with semantic schemes as proposed by Comrie (1976) and Bybee et al. (1994).

A recognition of the diachronic processes underlying the Central Pomo aspectual system in turn helps us to understand that system itself more clearly. The fact that it was built up largely by the recycling of the same markers explains why it is based on just two consonants and two vowels. The fact that the grammaticization of the imperfective marker preceded the development of the perfective by default explains why statives are classified as perfective, an ap-
appropriate classification given the fact that they have even less internal temporal structure than events. Finally, the fact that each new marker still contains the suffixes marking the category on which it was based, the one that it further qualifies, may suggest an explanation for the markedness relations holding between these categories. An imperfective may be specifically marked as habitual or it may remain unmarked, according to the choice of speaker.

Abbreviations

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References