1-2010

How to Tell a Creek Story in Five Past Tenses

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HOW TO TELL A CREEK STORY IN FIVE PAST TENSES[1]

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Creek (or Muskogee) is among a small number of languages around the world that distinguish multiple tenses based on degrees of remoteness from the time of speaking. Those working on Creek have rarely agreed on the number of tenses or on their meanings, however, and have rarely examined the seemingly intricate ways that speakers use tenses in texts. This paper argues that Creek has one future tense and five past tenses. It finds, however, that speakers may cast events within a single time frame in several different tenses based on immediacy. That is, just as English speakers will sometimes use present tense in describing past events, Creek speakers will sometimes allow tenses to creep forward from past 5 (remote past) to past 4 or even past 3 as events become more vivid. The Creek data thus provide especially clear support for observations that temporal distance in language may be extended metaphorically to express subjective distance (Dahl 1984, Fleischman 1989, and Hintz 2007).

[Keywords: Muskogean, Creek (Muskogee), typology, tense]

1. Introduction. A number of languages around the world have tense systems that are sensitive to degrees of remoteness in the past or future. Ashton et al. (1951:122) thus describe Luganda as having near and remote past tenses, and Payne and Payne (1990) describe five past tenses in Yagua ranging from the last few hours to a legendary past. Chung and Timberlake (1985:207–9) introduce the term "metrical tense" for systems like these that

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TABLE 1
CREEK FUTURE AND PAST FORMS OF *nis-* 'BUY' WITH INDICATIVE -(*i*)*s*

Future		*nis-áɬi:-s* 'he/she will buy it'
Prospective		*nis-áha:n-ís* 'he/she is going to buy it'
Present		*ni:s-ís* 'he/she is buying it, bought it (up to a few seconds ago)'
Past 1	perfective	*níhs-is* 'he/she bought it (today up to last night)'
	imperfective	*ni:s-êy-s* 'he/she was buying it (today up to last night)'
Past 2		*nî:s-ánk-s* 'he/she bought it (yesterday to several weeks ago)'
Past 3		*nî:s-imát-s* 'he/she bought it (several weeks to a year or so ago)'
Past 4		*ni:s-ánt(a)-s* 'he/she bought it (long ago, at least several years)'[1]
Past 5		*ni:s-atí:-s* 'he/she bought it (very long ago)'

[1] I have not met modern speakers who spontaneously offer past 4 forms, although they are willing to reproduce them. The form here was re-elicited based on Haas (1940).

"provide an approximate and subjective measure of the interval between the [event] frame and the tense locus."

Several languages of the American South also have metrical tense systems, though they differ in the number of distinctions made. The Muskogean language Choctaw, for example, has a two-way distinction in the past between the suffixes -*tok* and -*ttook*. According to Broadwell (2006:171–72), past 1 -*tok* is used for more recent past (within about the last year), and past 2 -*ttook* is used for more distant past. Creek, a Muskogean language spoken in Oklahoma and Florida, has a particularly rich set of time-related distinctions, with two suffixes expressing future time and five distinctions in past time. Table 1 shows forms of *nis-* 'buy', cited here in the indicative mood (ending in -(*i*)*s*).

In **2**, I use elicited data to consider whether all the time-related distinctions in table 1 are tenses (as opposed to aspect, adverbial suffixes, or markers of evidentiality). I ultimately conclude that the prospective and past 1 perfective are better considered aspect than tense, but that the other suffixes form a grammatical system and should be considered tense. The resulting five-way distinction in the past is still as rich as any known language. In **3**, I then consider how speakers use such a remarkably rich system in narratives. Surprisingly, it seems that speakers do not always follow their own prescriptive statements: in particular, I show that speakers slip from past 5 to past 4 and past 3 within a single time frame as they get caught up in the events of a story. Metrical tense in Creek is thus not just a mark of temporal distance, but also of immediacy, and artful speakers use tenses for both.

TABLE 2
BUCKNER'S (1860) CLASSIFICATION OF CREEK PAST TENSES

	Tense Name	Example Translation
Past 1 perfective	Imperfect, or first past time	'I ran'.
Past 2	Perfect tense, or second past time	'I have run'.
Past 3	Pluperfect tense, or third past time	'I had run'.
Past 4	Fourth past time	'I ran long ago'.
Past 5	Historic tense	'I ran'.

2. Reported usage. Several authors—either linguists working with native speakers or native speakers describing their own usage—have previously described Creek as having multiple tense distinctions. There has been some disagreement about the number of tenses and their meanings, however, and virtually every study has been conducted in isolation. A comparison of treatments from 1860 to 1940 helps clarify some of the issues in describing Creek tense and some of the limitations of using reports about usage.[2]

The first grammatical description of Creek was by H. F. Buckner (Buckner and Herrod 1860). Table 2 shows the tense names Buckner assigned corresponding to the five past tenses listed in table 1, along with his translations of these tenses. Buckner's treatment seems in some ways to be an unhappy compromise between statements his language teachers must have made and the grammar of Greek as found in Buttmann (1822). The names "first past time," "second past time," "historic tense," etc., suggest degrees of remoteness, but the terms "perfect tense," "pluperfect tense" and the translations Buckner gave ('ran', 'have run', 'had run') seem to reflect an attempt to fit Creek's metrical tense distinctions into more familiar categories of European languages.

The next treatment of Creek tense was done in 1885 by George W. Grayson, a native speaker of Creek (see table 3). Whereas Buckner attempted to fit past 2 and past 3 into more familiar categories of perfect and pluperfect tense, Grayson recognized that the distinction is based on remoteness from the present.[3] Clearly there are gaps in Grayson's time frames: based on the translations, it is not clear what tense would be used for an event that happened a month ago. Such gaps almost certainly indicate overlapping usage:

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[2] For now, I confine the review to the period 1860–1940 because the past 4 began to disappear after about 1940.

[3] Buckner and Grayson also differed in the treatment of past 5, with Buckner calling it the "historic tense" and Grayson calling it "past perfect." I do not believe this is language bias on Grayson's part, but a reflection of the fact that past 5 has several uses, some of which correspond to the perfect in English. It may also reflect the fact that some English speakers feel that the past perfect is more distant than the past in English.

TABLE 3
GRAYSON'S (1885) CLASSIFICATION OF CREEK PAST TENSES

	Tense Name	Example Translation
Past 1 perfective	First past tense	'I went during the day or last night'.
Past 2	Second past tense	'I went yesterday or a fortnight ago'.
Past 3	Third past tense	'I went 1, 2, or 3 years ago'.
Past 4	Fourth past tense	'I went 10, 20, or more years ago'.
Past 5	Past perfect tense	'I had gone'.

TABLE 4
LOUGHRIDGE AND HODGE'S (1890) CLASSIFICATION OF CREEK PAST TENSES

	Tense Name	Example Translation
Past 1 perfective	First perfect definite	'I have struck today'.
Past 1 imperfective	First past tense	'I was striking today'.
Past 2	Second past tense	'I struck yesterday or last week'.
Past 3	Third past tense	'I struck a year or so ago'.
Past 4	Fourth past tense	'I struck many years ago'.
Past 5	Perfect indefinite tense	'I have struck at any time'.

TABLE 5
HAAS'S (1940) CLASSIFICATION OF CREEK PAST TENSES

Past 1	'today or last night'
Past 2	'from yesterday back to several days or weeks ago'
Past 3	'several weeks ago back to a year or so ago'
Past 4	'a long time ago, at least several years ago'
Past 5	(no mention)

Grayson specified when certain tenses were called for, leaving the description vague when more than one tense was possible.

R. M. Loughridge and David M. Hodge included verb paradigms in their dictionary of Creek (Loughridge and Hodge 1890). They also distinguished five past tenses (see table 4). Loughridge and Hodge did not have access to Grayson's manuscript, but their description of past 1–4 is almost identical to his. Their description of past 5 differs yet again ("perfect indefinite" instead of Buckner's "historic" or Grayson's "past perfect"), suggesting either some uncertainty about usage or variability in usage.

Mary R. Haas (1940:144, n. 7) used the same numbering system for tenses adopted here but distinguished only four past tenses (see table 5). Within past 1, she further distinguished completive and incompletive aspect (which I call perfective and imperfective aspect). The time values Haas assigned to

ROOT Spontaneous Plural Prospective	Agent Person Markers	Negation	Tense	Durative	Mood

FIG. 1.—Order of suffixes in verbs, with a boldface line indicating the verb stem.

past 1–4 are similar to those given by Grayson (1885) and Loughridge and Hodge (1890).

These four treatments of Creek tense raise a number of questions. First, some linguists might wonder whether these tenses could instead be analyzed in other terms: could past 2 -*ank*- be an adverbial suffix meaning 'recently', for example? The various treatments of past 5 also seem to differ widely ('historic tense', 'past perfect tense', 'perfect indefinite tense', no mention). Since past 5 generally refers to legendary times, the question arises about whether -*ati:*- is really a tense or a mark of unwitnessed events. Third, because the language has changed in the past 60 years, I have simplified the description so far by stopping at Haas (1940). I will therefore update the description with more recent data.

Before addressing these questions, I first provide an overview of tense and time-related phenomena in Creek. All of my work on Creek has been heavily influenced by Mary R. Haas's research in the 1930s and 1940s. Her most complete description of tense and aspect is Haas (1940). Both Haas and I would agree, I think, that the terms used to describe a language must reflect the structure of that language. By "tense," I mean a grammatical system within a particular language used to indicate the time of a situation. In order to decide whether a given morpheme counts as "tense," we therefore need to consider whether various elements expressing time are part of the same grammatical system.

The Creek verb consists of a number of prefixes indicating direction, patient person marking, etc., and suffixes. The order of suffixes is given in figure 1.

As first described by Haas (1940), Creek verb stems occur in different grades.[4] These grade forms generally indicate differences in aspect. Haas's example of this was the verb *nis*- 'buy', which occurs in the zero grade (*nis*-), the lengthened grade (*ni:s*-), the aspirating grade (*níhs*-), the falling tone grade (*nî:s*-), and the nasalizing grade (*nǐ:ⁿs*-).

Grades apply to the verb "stem": the stem consists of the verb root and, if present, spontaneous -*ip*-, plural -*ak*-, and prospective -*aha:n*-. Stated another way, these three suffixes are within the domain of grade formation, so that

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[4] I have updated Haas's terminology to reflect more recent usage. Haas (1940) refers to "stems" instead of "grades." Her Stem V, for example, is now generally called the nasalizing grade.

nis-ak- 'buy (pl.)' has a lengthened grade *nis-a:k-*, an aspirating grade *nis-áhk-*, etc. Other suffixes are outside the domain of grade formation: agent person markers, negation, tense, durative *-i:-*, and mood all fall into this category.

There is no specific affix for present tense in Creek. In the absence of a tense marker, a verb in a main clause is usually interpreted as having present time reference or, in the right context, as having happened only a few seconds ago (1):

(1) *la:tk-ís*
     fall.SG.LGR-IND

     'It's falling (right now)'./'It fell (up to a few seconds ago)'.

Different grades can be used for different aspects within the present tense. Thus, the lengthened grade generally refers to an event (2), while the falling tone grade may be used for a present state resulting from an event (3):

(2) *leyk-ís*
     sit.SG.LGR-IND

     'He/She is sitting down (in the process of doing it)'.

(3) *lêyk-is*
     sit.SG.FGR-IND

     'He/She is sitting (has sat down)'.

Most time-related suffixes fall into a single slot, which I label "Tense" in figure 1. Different tenses strongly favor specific grade forms. The future typically occurs with the zero grade, for example, past 2 and past 3 typically occur with the falling tone grade, and the past 1 imperfective, past 4, and past 5 usually occur with the lengthened grade:

(4) *nis-áɬi:-s*
     buy-FUT-IND

     'He/She will buy it'.

(5) *ni:s-êy-s*
     buy.LGR-P1.IMPF-IND

     'He/She was buying it (today up to last night)'.

(6) *nî:s-ánk-s*
     buy.FGR-P2-IND

     'He/She bought it (yesterday to several weeks ago)'.

(7) *nî:s-imát-s*
    buy.FGR-P3-IND

    'He/She bought it (several weeks to a year or so ago)'.

(8) *ni:s-ánt(a)-s*
    buy.LGR-P4-IND

    'He/She bought it (long ago, at least several years)'.

(9) *ni:s-atí:-s*
    buy.LGR-P5-IND

    'He/She bought it (very long ago)'.

The notion of a tense "slot" is helpful for two reasons: (*a*) the time-related suffixes in (4)–(9) are all disjunctive (i.e., only one of these suffixes may appear with a given stem); and (*b*) the time-related suffixes in (4)–(9) all have the same order with respect to other affixes. That is, all six of these suffixes form a system within Creek, and tense seems an appropriate label for it.

The prospective modal suffix *-aha:n-* is not part of this system, however. In a form like the following, *-aha:n-* certainly expresses a future event:

(10) *lítk-aha:n-ís*
    run.SG-PROSP.LGR-IND

    'He/She is going to run'.

The placement of the prospective modal suffix is different from the tense suffixes, however. Thus, agent person markers precede tense suffixes like future *-áɬi:-*, for example, but follow *-aha:n-*:

(11) *lítk-íck-áɬi:-s*
    run.SG-2SA-FUT-IND

    'You will run'.

(12) *lítk-aha:n-íck-is*
    run.SG-PROSP.LGR-2SA-IND

    'You are going to run'.

The prospective modal thus seems to be closer to the verb root than what I am calling the tense suffixes. The prospective is also affected by grades, as the following nasalized forms show:

(13) *fack-ahǎ:ⁿn-os-i:-t*   *ô:-s*
    full-about.NGR-DIM-DUR-T   be.FGR-IND

    'It's almost full'.

(14) *litk-ahǎ:ⁿn-os-i:-t*   *ô:-s*
       run.SG-PROSP.NGR-DIM-DUR-T   be.FGR-IND

       'He/She is about to run'.

When the stem is in the nasalizing grade, the meaning is 'almost' or 'about to' instead of future. A third formal difference between prospective modal *-aha:n-* and the true tense suffixes is that while tense suffixes are all mutually exclusive, the prospective modal may appear in different tenses, including even past 5:

(15) *nis-áha:n-atí:-s*
       buy-PROSP.LGR-P5-IND

       'He/She was going to buy it (very long ago)'.

The formal properties of *-aha:n-* thus differ from the tense suffixes, and this fact, combined with nonfuture uses like those in (13) and (14), suggests that its basic meaning is 'on the point of' instead of a second future tense. I thus treat a form like (10) as a present tense prospective form and a form like (15) as a past 5 prospective form.

   I argued above that only one of the two suffixes used to express future time in Creek is a true tense suffix. The past 1 time frame (today up to last night) is another difficult area of grammar. I argue here that the past 1 perfective is better considered aspect, while the past 1 imperfective suffix fits neatly into the category of tense.

   Past 1 in Creek differs from other tense categories in that it is marked in two different ways depending on aspect. Past 1 perfective is marked by the aspirating grade and is used when an event is successfully completed once:

(16) *níhs-is*
       buy.HGR-IND

       'He/She bought it (today up to last night)'.

When an action is incomplete or took place more than once, the past 1 imperfective suffix *-eys-* is used:[5]

(17a) *ni:s-êys-a´*
        buy.LGR-P1.IMPF-Q

        'Was he/she buying it?'

(17b) *ni:s-êy-s*
        buy.LGR-P1.IMPF-IND

        'He/She was buying it'.

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[5] Past 1 imperfective *-eys-* has falling tone in certain lengthened grade forms. As (17*b*) shows, *-eys-* is simplified to *-ey-* before indicative *-(i)s*.

The imperfective suffix is also used for states (since they are not complete) and negative events (because they are not completed successfully):

(18) *héyy-i:-t*   *ô:w-ey-s*
      hot-DUR-T   be.FGR-P1.IMPF-IND

      'It was hot (today up to last night)'.

(19) *nis-ík-ey-s*
      buy-NEG-P1.IMPF-IND

      'He/She didn't buy it (today up to last night)'.

As shown in (5) above, the past 1 imperfective *-eys-* fits into the same "slot" as other tenses. The aspirating grade, however, applies to the verb stem and is formally quite different from the tenses. The most common use of the aspirating grade in texts is in fact to indicate a relative perfective event:

(20) *láhn-it*   *ca:t-atí:-s*
      yellow.HGR-T   red.LGR-P5-IND

      'It turned yellow, and then (any time after) it turned red'.

In (20), the stem *la:n-* '(be) yellow/green/brown' appears in the aspirating grade as *láhn-*. In chained clauses like this, the aspirating grade indicates a perfective event ('turned yellow') whose time interpretation is relative to the time of the next verb in the chain. Margaret Mauldin's judgment is that *láhn-it* in (20) indicates that something turned yellow sometime prior to the event in the main clause (it could be a day, a year, any amount of time).

This relative perfective use is quite different from main clauses, where the aspirating grade indicates a past 1 perfective event:

(21) *láhn-is*
      yellow.HGR-IND

      'It turned yellow (today/last night)'.

Based on (20) and (21), it seems that the basic meaning of the aspirating grade is to indicate a perfective event; in chained clauses the time of the event is any time prior to the next clause in the chain, while in main clauses the time frame is conventionally taken to be same-day. The past 1 time frame is thus somewhat complicated: in the imperfective, a specific tense form *-eys-* is used; in the perfective, there is no true tense suffix available, but the aspirating grade is used to fill that role.

I have examined several time-related phenomena critically and have argued that prospective *-aha:n-* and the aspirating grade should be considered a prospective modal suffix and perfective aspect rather than tense. That leaves one future tense and five past tenses (see table 6).

TABLE 6
CREEK TENSE FORMS OF *nis-* 'BUY' WITH INDICATIVE -(*i*)*s*

Future	*nis-áɬi:-s*	'he/she will buy it'
Past 1 imperfective	*ni:s-êy-s*	'he/she was buying it (today up to last night)'
Past 2	*nî:s-ánk-s*	'he/she bought it (yesterday to several weeks ago)'
Past 3	*nî:s-imát-s*	'he/she bought it (several weeks to a year or so ago)'
Past 4	*ni:s-ánt(a)-s*	'he/she bought it (long ago, at least several years)'
Past 5	*ni:s-atí:-s*	'he/she bought it (very long ago)'

One might try to further reduce the number of tenses. One reader, for example, wonders whether these tenses might in fact be adverbial suffixes of some kind (presumably, a type of incorporated adverb). No one has previously suggested that these suffixes are adverbial, partly because they are obligatory in past contexts. That is, an unmarked form like *mi:c-ís* 'he/she is doing it' can only be used for a current situation. Further, when noun phrases or clauses with adverbial function are added, they have to be consistent with the tense of the verb. Margaret Mauldin accepts the noun phrase *niɬíyeysí:* 'last night' with past 1, for example:

(22) *niɬíyeysí: míhc-ey-s*
     last.night   do.HGR-1SA-IND

     'I did it last night [P1]'.

She also accepts *páksankí:* 'yesterday' with past 2:

(23) *páksankí: mî:c-ay-ánk-s*
     yesterday   do.FGR-1SA-P2-IND

     'I did it yesterday [P2]'.

She rejects the use of *niɬíyeysí:* 'last night' with past 2, however:

(24) **niɬíyeysí: mî:c-ay-ánk-s*
     last.night   do.FGR1SA-P2-IND

     'I did it last night [P2]'.

A subordinate clause with adverbial function like *hofón-o:f* 'long ago' (literally, 'when it was long ago') is acceptable with past 3:

(25) *hofón-o:f   mî:c-ey-mát-s*
     long.ago-when   do.FGR-1SA-P3-IND

     'I did it long ago [P3]'.

With past 5, however, Margaret Mauldin feels the adverbial expression is more natural if it is made expressive (in the nasalizing grade):

(26) *hofŏːⁿn-oːf*   *miːc-ay-áti:-s*
      long.ago.NGR-when   do.LGR-1SA-P5-IND

      'I did it long ago [P5]'.

The fact that the verb suffixes are obligatory and that judgments about appropriate usage are relatively sharp suggests that these are grammaticalized indications of time rather than adverbial elements.

Another attempt to reduce the number of tenses in Creek might be to treat the past 5 tense as a mark of evidentiality.[6] Speakers often associate the past 5 (remote past) with legends, for example, so one might wonder whether this tense actually indicates an unwitnessed event or state. Possibly supporting this approach is the fact that authors have differed widely in their treatment of past 5 *-ati:-*: Buckner (Buckner and Herrod 1860) called it the "historic tense" (translating as 'I ran'); Grayson (1885) called it the "past perfect tense" (as in 'I had gone'); and Loughridge and Hodge (1890) referred to it as the "perfect indefinite tense" ('I have struck at any time').

From a purely formal perspective, however, *-ati:-* seems to qualify as a tense: It occurs in the same "slot" within the verb complex as other tenses (fig. 1) and is mutually exclusive with them. If *-ati:-* marked an unwitnessed event, there would be no reason it could not appear with other tenses. Moreover, as Hardy (2005:221) notes, *-ati:-* can be used in the first-person singular if the speaker is old enough. (26) is an example of this.

It is true that *-ati:-* has uses other than past 5, however. One use is what I call the "experiential," in which *-ati:-* combines with *-siko-* 'not exist' to mean 'have never':

(27) *hic-áy-ati:-siko-:-t*   *ôː-s*
      see-1SA-P5-exist.not-DUR-T   be.FGR-IND

      'I've never seen it'.

It is perhaps the use in (27) that led Grayson (1885) and Loughridge and Hodge (1890) to consider the past 5 a "perfect" tense.

I am not certain why the suffix *-ati:-* in (27) seems to have an experiential reading instead of past 5 semantics, but this use is consistent with other peculiarities. When *-ati:-* appears on a main verb, it consistently indicates a very remote past (possibly witnessed):

(28) *wanaːy-atí:-s*
      tie.LGR-P5-IND

      'He/She tied it'.

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[6] Indeed, I pursued this approach for many years but have only recently come around to the idea that *-ati:-* is better regarded as a pure tense.
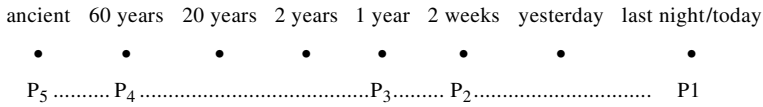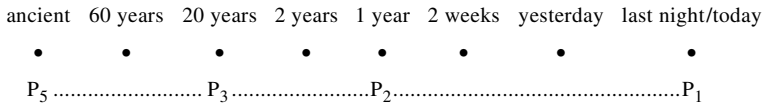
Older tense system

ancient   60 years   20 years   2 years   1 year   2 weeks   yesterday   last night/today

•   •   •   •   •   •   •   •

P$_5$ .... P$_4$ ....P$_3$......... P$_2$.............................   P1

Newer tense system

ancient   60 years   20 years   2 years   1 year   2 weeks   yesterday   last night/today

•   •   •   •   •   •   •   •

P$_5$ .... P$_3$ ....P$_2$...P$_1$

FIG. 2.—Older and newer tense systems.

When -*ati:*- appears in a relative clause, however, the time shifts:

(29) *wana:y-atí:*
      tie.LGR-P5

      'the one who tied it'/'the one he/she tied'

Margaret Mauldin's judgment is that (29) is simply vague about when in the past the event occurred (i.e., the tying occurred sometime in the past). This contrasts with (28), where it is clear that the event occurred very long ago. The experiential use in (27) is perhaps more similar to (29). The suffix -*ati:*- thus has a wider range of uses than just indicating remote past time but is still probably best regarded as indicating past 5 tense in main verbs.

In order to simplify the presentation, I have so far avoided discussing the speech of modern speakers. The main difference is that while past 4 is well documented until about 1940, it appears to have fallen out of use since then. As a result, speakers born about 1940 have shifted past 3 and past 5 to cover the missing time space (see figure 2). As figure 2 shows, past 3 and past 5 have expanded their range at the expense of past 4. Modern speakers in Oklahoma and Florida fail to recognize past 4, which suggests that its use was already declining when these groups separated in the early 1800s.

The description of tense in Creek has so far relied on intuitions by native speakers about their own usage. In the next section I turn to actual usage. Usage suggests that presentations like those in table 6 and figure 2 are somewhat idealized.

3. Uses of tenses in texts. Before considering the uses of tenses in texts, it is helpful to introduce a few formalisms. Within the theory of tense developed by Comrie (1985:122–30), which itself extends the notation of
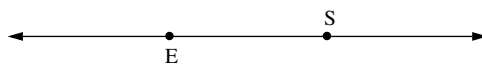
$$S$$
$$E$$

FIG. 3

$$S_1$$
$$E_1$$
$$=$$
$$S_2$$
$$E_2$$
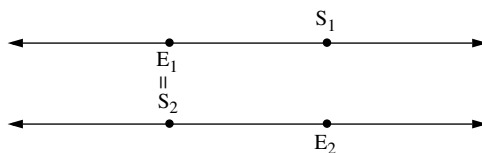
FIG. 4

Reichenbach (1947), a sentence like *I went* has the temporal representation in (30), where E is the event and S is the time of speaking:

(30) E before S

The schema E before S indicates that the event of going took place before the moment of speaking, as in the time line in figure 3. Similarly, a sentence like *I will go* can be represented as follows:

(31) E after S

The following is a slightly more complicated example, in which tense is "layered" (i.e., embedded in a direct quotation):

(32) *John said, "I will go."*

In (32), there are two events and two speech acts:

(33) E_1 before S_1

      E_2 after S_2

The complication in this case is that E_1 is itself a speech act and so is equivalent to S_2. Comrie (1985) does not discuss this type of example, but the diagram in figure 4 appears to make the right predictions. That is, the event of saying preceded the time that the entire sentence was declared, and the event of going was predicted to follow the time when the quoted portion was stated.

Comrie (1985:129) extends his account of tense to metrical tense systems by simply indicating the magnitude of degree in words. Within his system, the word *ni:s-atí:-s* 'he/she bought it [P5]' might be represented as follows:

(34) E before S a very long time ago

That is, the event of buying precedes the moment of speaking by a very long time.

Let us next consider an example like the following:

(35) *cofí-t*   *a:ł-atí:-s*   *má:ho:k-imát-s*
rabbit-T   go.about.SG.LGR-P5-IND   say.IMPL.LGR-P3-IND

'A rabbit was about [P5], it was said [P3]'.

There are two tensed events in (35): the going about (E_2) and the saying (E_1). The event of saying is in past 3 and can be represented as follows:

(36) E_1 before S_1 several weeks to a year or so ago

That is, the person making the statement heard it several weeks to a year or so previously. The first clause is a direct quotation, though, and so counts as a separate speech event. Measured from this speech event, the event of going about is in past 5:

(37) E_2 before S_2 a very long time ago

Combining these two, the sense of the two clauses is that the speaker heard a while back someone say that a rabbit was about a very long time ago. Stated another way, the tense of the main clause and of a direct quotation can vary freely, with each clause having the expected temporal reference.

We can now turn to natural examples arising in texts. In examining the uses of Creek tenses, I have relied heavily on the writings of Earnest Gouge and James H. Hill. The Gouge collection consists of 28 stories written at the request of John Swanton in 1915. Edited and translated versions of these stories appear in Gouge (2004). The Hill collection consists of about 115 stories and was written at the request of Mary R. Haas in the late 1930s (Haas and Hill [in progress]). Both of these text collections were originally written in the traditional Creek spelling: Margaret Mauldin helped phonemicize and analyze the forms.

As expected, traditional legends are normally told using past 5 *-ati:-*, as in the following story:

(38) *nokósi-t*   *mo:m-ít*   *cofí*   *'tipâ:k-a:t*
bear-T   be.SO.LGR-T   rabbit   join.FGR-REF

   itínhi:ss-atí:-s
   become.friends.LGR-P5-IND

'Bear and Rabbit became friends [P5].

món-t   *ihéys-a:k-<u>atí:</u>-s*
be.SO.LGR-T   take.wife-PL.LGR-P5-IND

And they both took wives [P5].

món-t   *impálsi*   *o:c-ak-í:*   *háhk-o:f*
be.SO.LGR-T   D.spouse   have-PL-DUR   become.HGR-when

Now after each had gotten a wife,

cofí-t   *lêyk-in*   *nokósi-t*   *hi:c-<u>atí:</u>-s*
rabbit-T   sit.SG.FGR-N   bear-T   see.LGR-P5-IND

Bear saw [P5] Rabbit just sitting around'.   (Gouge 1915)

Speakers are quick to point to this usage and often identify the past 5 verb form with storytelling. The following is another example, from the beginning of a different story:

(39) *ísti*   *hokkô:l-it*   *fá:-ka-n*   *aho:y-<u>atí:</u>-s*
      person   two.FGR-T   hunt-NZR-N   go.DU.LGR-P5-IND

'Two men went hunting [P5].

món-t   *wila:k-ít*
be.SO.LGR-T   go.about.DU.LGR-T

And going about,

ihapó: *máhh-i-ta:t*   *ił-hâ:y-it*
3P.camp   real.HGR-I-TOP   DIR-make.FGR-T

they made camp

tak-kâ:k-<u>ati:</u>-s
LOC-sit.DU.FGR-P5-IND

and settled in [P5]'.   (Gouge 1915)

Examples (38) and (39) reveal an important point about tense in Creek, however, which is that it is normally only main clauses that require tense. The third line in (38) ('after each had gotten a wife') is not tensed in Creek, nor is the second ('going about') or third line ('they made camp') in (39): in Creek, chained verbs like these are typically only marked for aspect.

    Past 4 is also used in traditional texts from this period, however, and is often used to distinguish the time the story was first heard (long ago) from

the events in the story itself (which happened very long ago or once upon a time):

(40) *móhm-in*   *hatâm*   *cofí-t*   *a:ł-atí:-s*
      be.SO.HGR-N   again   rabbit-T   go.about.SG.LGR-P5-IND

      'And now a rabbit was once about [P5],

      má:ho:k-ánt-s
      say.IMPL.LGR-P4-IND

      it was said [P4].

      cofí-t   *óywa-n*   *i:sk-ít*   *a:ł-í:-t*
      rabbit-T   water-N   drink.LGR-T   go.about.SG.LGR-DUR-T

        ô:m-ati:-s
        be.FGR-P5-IND

      The rabbit would go about drinking water [P5]'.   (Gouge 1915)

The tense of *má:ho:k-ánt-s* 'it was said' is past 4:

(41) E before S long ago, at least several years

The tense of *cofí-t a:ł-atí:-s* 'a rabbit was about' is past 5:

(42) E before S a very long time ago

That is, the speaker heard the story long ago, and at that time (since this is a direct quotation), the person he heard it from said it happened a very long time ago. Past 4 is not at all common among Creek speakers today, but this layered use of past 4 and past 5 is common in the stories of Earnest Gouge and James H. Hill. Examples (43) and (44) are similar opening lines from two other stories:

(43) *locá-t*   *yahá-n*   *tíma:ł-atí:-s*   *má:ho:k-ánt-s*
      turtle-T   wolf-N   race.LGR-P5-IND   say.IMPL.LGR-P4-IND

      'Turtle and Wolf had a race [P5], it's been said [P4]'.   (Gouge
        1915)

(44) *cofí-t*   *tó:tka*   *híckoyc-ít*   *o:m-atí:-s*
      rabbit-T   fire   acquire.LGR-T   be.LGR-P5-IND

        má:ho:k-ánt-s
        say.IMPL.LGR-P4-IND

      'It's said [P4] that Rabbit first found fire [P5]'.   (Gouge 1915)

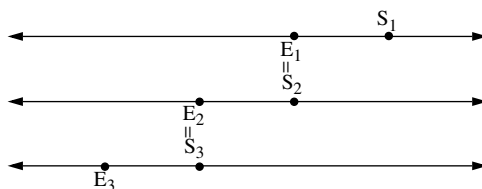Further layering of tenses is also possible:

Fig. 5

(45) *cok-hací-ta:t*   *ca:ta-alhǐ:ⁿk-os-it*   *íɬ-yeyc-<u>ánta</u>-s*
mouth-tail-REF   blood-covered.NGR-DIM-T DIR-come.TPL.LGR-P4-IND

'"They came back with the corners of their mouths covered in blood [P4],"

ma:k-i-sâ:s-<u>ati:</u>-s   *ma:k-ít*   *oná:ho:y-<u>ânta</u>-s*
say.LGR-I-be.some.FGR-P5-IND say.LGR-T   tell.IMPL.LGR-P4-IND

someone said [P5], it was told [P4]'.   (Gouge 1915)

That is, it was told long ago [P4] that someone said very long ago [P5] that they (some dogs) came back long ago [P4]:

(46) E_1 before S_1 long ago (*oná:ho:y-<u>ánta</u>-s* 'it was told [P4]')

    E_2 before S_2 very long ago (*ma:k-i-sâ:s-<u>ati:</u>-s* 'someone said [P5]')

    E_3 before S_3 long ago (*íɬ-yeyc-<u>ánta</u>-s* 'they came back [P4]')

Each quoted portion signals a new speech act with a new reference point for tense. This can be represented as shown in figure 5. These nuances are of course difficult to translate in English but are widespread and natural in Creek narratives.

Traditional narratives are not a rich source for recent past tenses, but we do find them in quotations:

(47) *ci-ppocí*   *po-cósi-ta:t*   *il-íhp-in*
2P-son   1pP-brother-ATN die.SG-SPN.HGR-N

'"Your son, our brother, died

hǐ:ⁿɬ-in   *aca:yî:c-iy-<u>ánk</u>-s*   *ci:^*
good.NGR-N take.care.of.FGR-1pA-P2-IND DCL

and we buried him with respect [P2],"

keyc-ít   *íɬki-n*   *y-in-láks-a:k-<u>atí:</u>-s*
tell.LGR-T 3.father-N DIR-D-lie.PL.LGR-P5-IND

they said, lying to their father [P5]'.   (Gouge 1915)

In (47), the verb *aca:yî:c-iy-ánk-s* 'we took care of him/buried him [P2]' indicates that the burial took place the day before up to a few weeks prior:

(48) E before S one day up to a few weeks ago

That verb is in a quotation, however, and the verb *y-in-láks-a:k-atí:-s* 'they came and lied to him' is in past 5. The meaning, then, is that the act of telling a lie was done very long ago, and when they lied, they spoke of burying someone a day or a few weeks prior.

The examples we have considered so far support the judgments of speakers regarding the uses of tenses. Sometimes there are passages like the following, however, in which past 4 and past 5 are both used in what seems to be a single time frame:

(49) *teynisín   téyksis   tímpi-t   o-m-atí:-s*
      Denison   Texas   near-T   be.LGR-P5-IND

      'It was near Denison, Texas [P5]. . .

      ya   ist-âlki-t   im-ist-âlki   o:c:ak-í:-t
      this   person-GPL-T   D-person-GPL   have-PL-DUR-T

        apo:k-â:k-in
        sit.TPL-PL.FGR-N

      These men lived [there] with their families

      apo:k-ít   o:m-iy-ánta-s
      sit.TPL.LGR-T   be.LGR-1pA-P4-IND

      and we lived [P4] [there, too].

      ahopayî:c-os-a:t   cokó   sólk-i:-t   o:m-atí:-s
      far.FGR-DIM-REF   house   many-DUR-T   be.LGR-P5-IND

      Not too far away there were [P5] many houses.

      ito-poló:k-i: cokó   is-há:y-ak-áti:
      tree-round-DUR   house   INST-make-PL-P5

      We used to live [P4] in houses made of logs,

      cokó   hǒⁿlwa:hô:k-os-i:-n   apo:k-ít   o:m-iy-ánta-s
      house   ugly.NFGR-DIM-DUR-N   sit.TPL.LGR-T   be.LGR-1pA-P4-IND

      ugly little houses.

      mo:m-ín   ma   okíta
      be.SO.LGR-N   that   time

      At that time

ísti	*istimiłk-ak-í:-t*	*foll-it*	*o:m-iy-ánta-s*
person	suffer-PL-DUR-T	go.about.TPL.LGR-T	be.LGR-1PA-P4-IND

we went [P4] suffering'.   (Haas and Hill [in progress])

The passage in (49) is from James H. Hill's autobiography, written in 1939 when he was 78. This text is useful because it is organized from remote past to present, and because it is one of the few texts that provides approximate dates for specific occurrences. In (49), Hill is discussing events that took place during the U.S. Civil War, 75 years prior to the time of writing. What is interesting is that he uses past 5 for the third-person statements in the first and fourth lines, but past 4 for the first-person plural descriptions, even though by all accounts these statements should be expected to occur in past 5.

The passage in (49) might suggest that *-ati:-* is for unwitnessed remote past events and that *-anta-* is for witnessed remote past events, but examples like (26) and other passages from Hill show that past 5 *-ati:-* can be used for witnessed events. In the following, subsequent passage, Hill describes events that happened 57 years earlier, when he was about 21:

(50) *isticá:ti   máhh-i   acol-ak-í: mâ:h-a:t   omálka-t*
      Indian   real.HGR-I   old-PL-DUR   very.FGR-REF   all-T

'All the old full-bloods

ispa:híhca-n   im-anéyc-i:-t   foll-atí:-t
Ispahihcha-N   D-help-DUR-T   go.about.TPL.LGR-P5-T

  ô:ⁿ-s
  be.FGR-IND

supported [P5] Ispahihcha.

ahá:ka   impatá:ka   asapa:kl-âlki-n   apâ:k-ey-t
law   D-foundation   supporter-GPL-N   be.with.FGR-1SA-T

I was with [P5] the supporters of

a:ł-ay-áti:-t   ô:ⁿ-s
go.about.LGR-1SA-P5-T   be.FGR-IND

the constitution'.   (Haas and Hill [in progress])

The form *a:ł-ay-áti:-t ô:ⁿ-s*, literally, 'I went around with [P5]', is first-person singular, and so past 5 is clearly possible for witnessed events. The following example from the same passage is similar:

(51) *híɫka*   *ha:k-ô:f*
    peace   become.LGR-when

    '. . . when peace was declared,

    ohɫolopí: *cokpiɫákko*   *hámk-in*   *cókpi*   *cinapâ:k-in*
    year   thousand   one-N   hundred   eight-N

    it was [P5] the year eighteen hundred

    pa:licinapâ:k-in   *hokkolohkâ:k-a:n*   *o:m-ati:-s*
    eighty-N   add.two.FGR-REF.N   be.LGR-P5-IND

    and eighty-two.

    mo:m-ô:f   *am-acólka*
    be.SO.LGR-when   1SD-age

    At that time my age

    ohɫolopí: *pa:lihokkô:l-i:*   *hamkontalâ:k-a:t*   *oɫí:-t-á:ti:-s*[7]
    year   twenty-DUR   add.one.FGR-REF   reach-DUR-T-be.P5-IND

    was [P5] twenty-one years'.   (Haas and Hill [in progress])

Both past 5 forms in (51) are third person, but they clearly describe a time that Hill witnessed personally.

The evidence we have seen so far seems contradictory: on the one hand we have seen that past 5 can be used for witnessed events, but we have also seen a tendency to use past 4 in some first-person contexts alongside past 5 forms. The position I take is that past 5 is a true remote tense (and thus possible in the first person for those who are old enough), but that authors sometimes shift to more recent tenses in first-person contexts to give more immediacy to a description. That is, just as English speakers will sometimes describe past events in the historic present, Creek speakers will sometimes slip into past 4 or even past 3 when vividly remembering remote circumstances.

Particularly clear evidence of this artful use of Creek tenses is seen in the following text. The passage describes Ispahihcha's rebellion and is drawn again from James H. Hill's autobiography. He begins the passage in past 5, referring in 1939 to events in 1882 when he was 21:

(52) *ispa:híhca*   *hocífk-i:-t*
    Ispahihcha   named-DUR-T

    '. . . a man named Ispahihcha

---

[7] Past 5 sometimes contracts with *om-* 'be', as it does here.

isti-ma:skó:ki   *im-ahá:ka*   *im-patá:ka-n*   *anłáhp-it*
person-Muskogee   D-law   D-foundation-N   oppose.HGR-T

opposed the Muskogee constitution,

im-ísti-w   *solíhc-it*
D-people-also   gather.HGR-T

gathered many of his people,

ahá:ka   *im-patá:ka*   *a-sapa:kl-âlki-n*   *anłap-í:-t*
law   D-foundation   supporter-GPL-N   oppose-DUR-T

   hółłi-n   *ha:y-ít*
   war-N   make.LGR-T

made war against the supporters of the constitution,

isti-ma:skó:ki   *itálwa*   *itikapayí:ceyc-<u>atí:</u>-t*   *ô:ⁿ-s*
person-Muskogee   nation   divide.LGR-P5-T   be.FGR-IND

'and divided [P5] the Muskogee Nation'.   (Haas and Hill [in
   progress])

The first four clauses in (52) are chained clauses and are not marked for
tense. The last clause is in past 5, indicating a remote event (which we know
to be 57 years prior). Hill then describes a shooting between the two parties
in past 5 and describes how the supporters of Ispahihcha were imprisoned.
He then shifts briefly to past 4 in the following passage before shifting to
past 3 as tension mounts:

(53)   *aha:kahá:ya*   *ísti*   *hokkô:l-it*   *apâ:k-in*   *apíhy-in*
      lawyer   person   two.FGR-T   be.with.FGR-N   go.TPL.HGR-N

     '. . . so the lawyer accompanied by two people went,

     ma   *ísti*   *acol-ak-í-ta:t*   *apô:k-in*
     that   person   old-PL-I-ATN   sit.TPL.FGR-N

     and we went about [P4] guarding

     ahíceyc-ít   *foll-iy-<u>ánta</u>-s*
     guard.LGR-T   go.about.TPL.LGR-1PA-P4-IND

     the old people that were there.

     mo:m-ín   *ma*   *ísti*   *acol-akí*   *ahiceyc-itá*
     be.so.LGR-N   that   people   old-PL   guard-INF

       im-pinkal-â:k-a:ti-w
       D-fear-PL.FGR-REF-also

     And though many were afraid

sólk-i:-tot   *o:m-êys*
many-DUR-even   be.LGR-though

to guard the old people,

isto:m-ak-íko-:   *tâ:y-ika*   *foll-imát-s*
do.anything-PL-not-DUR   able.FGR-so   go.about.TPL.LGR-P3-IND

they couldn't [P3] do anything.

hofón-i: *acol-ak-í-tá:ti:*   *ohhonáka*   *poh-a:k-atí:-t*
long.ago-DUR   old-PL-I-P5   story   hear-PL.LGR-P5-T

They had heard stories from long ago about the old ones,

omí:ceyc-ín   *im-pinkál-a:k-ít*   *om-a:k-imát-s*
be.because.LGR-N   D-fear-PL.LGR-T   be-PL.LGR-P3-IND

and so they were afraid [P3]'.   (Haas and Hill [in progress])

He then continues in past 3 to describe a period in which the prisoners awaited a ruling from the judge. He then states the judge's warning in past 3 before returning to past 5:

(54) *'sanacóma*   *hĺka*   *ayáma:hk-í:*   *ahá:ka*   *anłap-í:*
     never   peace   disturb.LGR-DUR   law   oppose-DUR

     '"Never again disturb the peace

     akíłłeyc-í: *naka:ft-í:*   *folêyy-á:ck-as*
     consider.LGR-DUR   meet.LGR-DUR   go.about.TPL.HGR-2PA-IMPER

     or conduct meetings opposing the law,"

     keyc-ít   *faccí:ca*   *im-oponáhy-in*   *awa:h-imát-s*
     say.LGR-IND   judge   D-speak.HGR-N   disperse.LGR-P3-IND

     the judge warned them, and they dispersed [P3].

     ohłolopí: *pa:licahkî:p-ank-í:*   *mâ:h-it*   *o:m-atí:-s*
     year   fifty-P2-DUR   about.FGR-T   be.LGR-P5-IND

     It was about fifty years ago [P5]'.

Clearly, a literal interpretation of the uses of Creek past tenses would have difficulty with such a passage. These uses make sense if we consider the mental state of the narrator, however. By the end of this story, the narrator is clearly caught up in the events of his youth (shootings, imprisonment, a last-minute pardon). His use of past 3 during the climax indicates that these events are closer and more vivid in his mind. It is precisely when he pulls away from the story in the last line of (54) and thinks clearly about when the

events occurred that we see a return to the prescriptively endorsed past 5. The same effect can be seen in (49), where we noted Hill's use of past 4 for first-person events and past 5 for third-person events: first-person events are more immediate and more vivid, and his choice of tense represents that. When speakers are asked to reflect on their own usage, they apparently give an idealized description, but in actual usage they may drift toward the present.

4. Remaining questions. There are a number of descriptive issues that seem only to arise in languages with metrical tense systems. One basic question an English speaker might ask, for example, is how a speaker decides on a particular tense when they are asking about an event that could have happened at any time. In the following example from a recorded conversation, a speaker asks whether the addressee has been to a new supermarket in Shawnee, Oklahoma:

(55) *ma*   *niska-cóko*   *há:y-a:k-â:t*   *ł-in-hic-â:k-ícc-ánk-a´*
      that   buying-house   make-PL.LGR-REF   DIR-D-see-PL.FGR-2SA-P2-Q

'That [new] store they built, have you been to see it [P2]?'

In principle, the speaker could have chosen from five different past tense forms, but since the store itself was less than a year old, the speaker opted to use past 2. That is, there is no default tense: instead, questions in different tenses ask slightly different things.

A second question I have faced as a nonspeaker is how to choose a tense when an event extends over a long period and then ends fairly recently. When I was finishing a draft reference grammar, for example, I wanted to thank the speakers who had helped me over the years. In Creek, one formal way to thank someone is to say *an-lopêyc-á:ck-ánk-s* 'you (pl.) have made it better for me'. Even though the work began twenty years ago, Margaret Mauldin said that I should use past 2, since it is the endpoint of an event that a tense indicates. She provided the following as another example:

(56) *hofón-i:-n*   *akhasí:*   *akałp-ĭ:ⁿt-t*
      long.time-DUR-N   lake   dry-SPN.NGR-T

'The lake dried for a long time

      akałp-ima:h-î:p-it   *o:w-ánk-s*
      dry-keep-SPN.FGR-T   be.LGR-P2-IND

and then finally dried up [P2]'.

That is, it does not matter how long ago the drying began: What the tense specifies is when it concluded (or for a state, when that situation existed).

TABLE 7
NOMINAL USES OF PAST TENSE FORMS

Past 1	noun (modifier) *-eys-í:*	from today to last night
Past 2	noun (modifier) *-ank-í:*	before last night
Past 5	noun (modifier) *tá:t-i:*	former/deceased

I have so far restricted the description to tense on verbs, but Creek also has nominal tense. It is initially surprising to find that nominal tense and verbal tense often have the same form but different time values:

(57) *ohłolopí:*   *pa:licahkî:p-ank-í:*   *mâ:h-it*   *o:m-atí:-s*
      year   fifty-P2-DUR   about.FGR-T   be.LGR-P5-IND

'It was about fifty years ago [P5]' (Haas and Hill [in progress]).

The clitic form may follow a noun directly or appear after a modifier, as in (57). Table 7 lists the three nominal tense clitics and their time values. The labels Past 1, Past 2, and Past 5 reflect the verbal forms they are cognate with rather than their time value.

The following examples show these nominal uses:

(58) *niłí:* 'night'   *niłí:-eys-í:* 'last night'

     niska-cóko 'store'   *ma niska-cóko-eys-í:* 'that store
                                             (we passed)'

     páksi-n 'next day, tomorrow'   *páks-ank-í:* 'yesterday'

     ohłolopí: 'year'   *ohłolopí:-ank-í:* 'last year'

     ohłolopí: pa:li-cahkî:p-in   *ohłolopí: pa:li-cahkî:p-ank-í:*
        '50 years'   '50 years ago'

     cá-łki 'my father'   *cá-łki tá:t-i:* 'my late father'

With nouns, the past 5 form *tá:t-i:* has a specialized use for those who are deceased. Otherwise, past 1 *-eys-í:* is generally used for today up to last night, and past 2 has a broadened use for any greater time in the past.

5. Wider implications. In **2**, I argued that Creek has five past tenses and one future tense. I then reported the idealized guidelines native speakers give for their use based on remoteness from the time of speaking. In **3**, I examined actual usage and found some surprises:

(59) Within a past 5 time frame, third-person situations are marked in past 5, while first-person situations may be marked in past 4 or past 5.

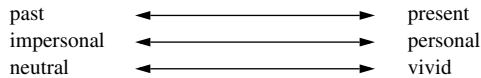| past | ←——————————→ | present |
| impersonal | ←——————————→ | personal |
| neutral | ←——————————→ | vivid |

FIG. 6.—Natural alignment of tense, person, and imagery in Creek.

The principle in (59) is most evident in (49), where the narrator alternates between past 5 and past 4. We have also seen evidence of the following, however:

(60) Within a past 5 time frame, speakers may use past 4 or even past 3 as events seem closer and more vivid. Statements requiring careful thought about the specific time use past 5.

The evidence for (60) is drawn from the passage in (53) and (54).

There is something about the use of more recent past tenses for first-person forms and for vivid portions of a text that seems natural, and indeed when we begin to look at other languages we discover similar effects. Dahl (1984:111), in discussing Javanaud's (1979) description of the Occitan dialect Limouzi, proposed that "events which you have witnessed yourself or which concern you as a person in a direct way might be felt as being 'closer' in a general way and thus be more likely to be reported in a nonremote past tense." Fleischman (1989) expanded upon this idea, suggesting that temporal distance is "systematically extended, both synchronically and diachronically, to convey distance along axes located not only within grammar, i.e., in the REFERENTIAL component, but in the pragmatic components as well." Using some of the same Romance examples as Dahl, she notes that French has both a *passé simple* (as in *je fis* 'I did it') and a *passé composé* (*j'ai fait* 'I did it/have done it'). The *passé composé* is also a perfect and, as such, frequently implies a recent past (and may have indicated a 'today' past in the seventeenth century). As she notes, the *passé simple* is also the tense of historical narration, while the *passé composé* is the tense of autobiography. Stated another way, the forms that are taken to be closer in time are also seen to be more personal. Hintz (2007) tests this theory within the more elaborate tense system of South Conchucos Quechua and finds that "tense forms placing events in the more distant past are used with the parts of the narrative that are peripheral (the orientation, side remarks and resolution) and that convey little affect from the speaker. Tense forms placing events closer to the present are used with the parts of the narrative that are critical to the storyline (the abstract, complicating action and climax)."

In Creek as well we see a natural alignment of senses along several dimensions (see figure 6). The scalar nature of Creek's tense system makes these relationships particularly clear and allows for gradations in notions derived from temporal distance.

Creek's unusually elaborate tense system also allows us to test some claims typologists have made about metrical tense systems. Dahl (1984:112), for example, notes the following:

(61) If there are one or more distinctions [of] remoteness in a tense–aspect system, and reference can be made to objective time-measures, one of the distinctions will be between 'more than one day away' and 'not more than one day away'.

We have seen evidence of (61) with the past 1 time frame in Creek, which is used for situations applying earlier today or last night. Creek is like Ewondo (Angenot 1971), Hixkaryana (Derbyshire 1979), and Yimas (Foley 1991:243), however, in having the day begin at sundown.

Dahl (1984) also notes the following tendencies:

(62) Categories which can be used as a 'perfect of result' (i.e., to say that something has happened that has a result at the moment of speech) tend to be nondistinct from hodiernal pasts.

(63) Categories which are used like the English pluperfect will tend to be nondistinct from remote past.

The principles in (62) and (63) both explain multiple uses of Creek forms. I have shown that the aspirating grade in Creek indicates both a relative perfective aspect in chained clauses (e.g., turned yellow sometime prior to another situation) and a past 1 perfective in main clauses (turned yellow today/last night). The principle in (62) suggests that the relative perfective use may be the source of the hodiernal ('today') use in main clauses. The principle in (63) in turn may help explain why the past 5 in Creek has experiential uses, as in (27), alongside its use for a remote past. The different readings of past 1 forms and past 5 forms thus give clues as to their possible origins and how Creek has come to develop such a rich tense system.

Comrie (1985:87) further proposes the following tendency:

(64) In languages with metrical tense systems, the number of distinctions in the past is greater than or equal to the number of distinctions in the future.

The lopsided nature of Creek tense, with one future tense and five past tenses is evidence of the greater utility of specificity in the past.

Perhaps the most interesting generalization to emerge from the Creek data is that metrical tense, like many other areas of grammar, may be used for expressive purposes. When speakers describe the uses of tenses, they typically give fairly clear-cut answers. Thus, Grayson (1885) stated that past 3 was used for "1, 2, or 3 years ago," Loughridge and Hodge (1890) said the

same form was for "a year or so ago," and Haas said it was for "several weeks ago back to a year or so ago." When speakers get caught up in a story, however, they often use more recent past tenses, only returning to the prescriptively endorsed form when pulling out of the story and thinking objectively. In some ways, the choice of a specific past tense in Creek is as much art as it is grammar.

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