

The semantics of Yurok Intensive infixation*

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1. Introduction. In his 1958 grammar of the Yurok language of northwestern California, R. H. Robins introduced the term “intensive” for a central grammatical category of that language. We will retain his term in our discussion of the semantics of this category, though it remains to be seen whether actual “intensive” meanings exist and (if so) how they arise. Our analysis is based on published and unpublished texts and preliminary fieldwork, and our results at this point are provisional.

The Yurok Intensive has two main surface forms, both resulting from an underlying infix *-eg-*. Typically, as illustrated in (1), the Intensive surfaces with precisely this form: an infix positioned after the onset consonant or cluster of its base.

(1)	BASE		INTENSIVE
	ko'moy-	“hear”	k- eg -o'moy-
	laay-	“pass”	l- eg -aay-
	hlkyorkw-	“watch”	hlky- eg -orkw-
	trahk-	“fetch water”	tr- eg -ahk-

Alternatively, if the base vowel is *-e-* and is followed by a velar, the Intensive has an apparent ablaut variant. Before a nonlabial velar the Intensive takes the form of *-ii-* ablaut ($*CeK-$ → $*C-eg-eK-$ > $*C-iy-iK-$ > $CiiK-$); before a labialized velar it takes the form of *-uu-* ablaut ($*CeKw-$ → $*C-eg-eKw-$ > $CuuKw-$). These variants are illustrated in (2).

(2)	BASE		INTENSIVE
a.	kweget	“visit”	kw ii get
	lekoo(t-)	“stab”	li ik oo(t-)
	nek-	“put”	ni ik -
b.	lekwohl-	“fall, fill the air”	lu uk wohl-
	new-	“see”	nu uw -
	pew(om)-	“cook”	pu uw om-

Finally, note that some forms show an apparent double Intensive formation $*-eg-eg-$ > $-iig-$ (e.g. *cwin-* “speak” → *cniiigin-*), which we will discuss later in the paper.

Though the meaning of the Yurok Intensive has not previously been studied in detail, brief statements exist. For example, Robins (1958: 82) wrote that its “basic meaning ... is intensity, plurality, or iteration ... of the action, state, or process denoted by the verb.” In a pair of 1985 articles he called the formation “frequentative”, which is reminiscent of the term “iterative” used by A. L. Kroeber as well as the brief description given by Kroeber’s colleague T. T. Waterman, who wrote that the formation “means *often* or *habitually*, adding the idea of frequent or customary occurrence.”¹

Clearly, insofar as its meanings involve frequency, habituality, iteration, and plurality of action, the Intensive belongs in the typological arena of pluractionality or verbal plurality. Such phenomena were examined in Sapir’s classic treatments of Takelma (1922: 127-34) and Southern Paiute (1930: 148-59, 236-41, 256-62) and have been investigated more recently by Cusic (1981), Mithun (1988a, b), Lasersohn (1995), and others (Newman 1990, Xrakovskij

1997, Yu 2001). Cusic and Lasersohn in particular highlight the important typology in (3).

- (3) THREE KINDS OF ITERATION OR REPETITION (Cusic 1981, Lasersohn 1995)
- a. Event-internal (event-phase) repetition, e.g. *bite* → *nibble*, *fly* → *flutter*
 - b. Event-external repetition, single occasion, e.g. *keep biting*, *fly back and forth*
 - c. Event-external repetition, multiple occasions, e.g. *bite regularly*, *fly frequently*

One kind of verbal plurality, called “repetitive” aspect by Cusic, involves repetition of the internal phases of an event. For example, as suggested in (3a), an event of nibbling or fluttering consists of iterations of the basic action associated with biting or flying respectively. Crucially, the iterated internal phases – each bite in (3a), or each flap of the wing – do not instantiate the same type of event as the overall event.

By contrast, the two kinds of pluractionality in (3b) and (3c) can be seen as event-external repetition. In each case a single type of event is repeated, either on one single occasion as in (3b) or on multiple occasions as in (3c). Cusic (1981) calls event-external repetition “repeated” aspect, while Bybee, Perkins, and Pagliuca (1994) use the terms “iterative” and “frequentative” for event-internal and event-external repetition respectively.²

In Yurok, there is an aspectual opposition between the Intensive and a reduplicative formation we will call the Repetitive (Garrett 2001). Their basic functions are as follows. Repetitive reduplication expresses event-internal repetition, mainly with semelfactive base verbs as in (4).

(4)	BASE		REPETITIVE	
	ckem	“to count”	ckem-ckem	“to make small tatoos”
	pegon-	“to split”	peg-pegon-	“to split in several places”
	prkwrh(s-)	“to peck or knock”	prkw-prkwrh(s-)	“to peck or knock repeatedly”
	tek(toy-)	“to grow” (of plants)	tek-tekon-	“to grow in tufts”
	t’k’eroh(s-)	“to thump ...”	tk’er-t’k’eroh(s-)	“to thump repeatedly”

The morphological details of reduplication are not the object of this paper, but we should note that the reduplicant is not always a single heavy syllable as in (4).

In contrast to the Repetitive, the Yurok Intensive typically expresses event-external repetition. To use the terminology of Bybee, Perkins, and Pagliuca, the Repetitive expresses iterative aspect while the Intensive expresses frequentative aspect. Typical Intensives appear in (5).

- (5) a. niko’hl ho ’ne-**krgrtk-rk’**
 always PAST 1-**go.fishing.INT**-SG
 “I always used to fish.”
- b. kwilek wit kit mehl sonow-o’m k’i numi cu sook k’e-**negep-ek’**
 well this NR.FUT CIRC be.like-2SG the very all *sook* 2-**eat.INT**-SG
 “You are getting like this because you eat everything *sook* [= ‘reptiles ... as well as human foetuses’ (Buckley 1980: 156)].”
- c. k’i toomeni sonow-oni c’uc’iš numi cu **kegohce’w**
 ART all.sorts happen-ATTR.3PL bird very all **catch.INT**.3SG
 “He used to catch all sorts of birds.”

- d. hewon we-new-oy-hl woogey **negi'ihl**
 at.first 3-sec-PASS-3PL white.man **be.two(human).INT**
 “When they were first seen, the white men went in pairs.”

We can also cite minimal pairs to illustrate the Intensive. For example, in (6a), the first sentence refers to one of a series of deer swimming by, while the second sentence refers to the whole series.

- (6) a. kem pulekw niki **rur** ... nii'nowur k'is kwen **regur-in**
 again downriver CONS **swim** look where **swim.INT-ATTR.3PL**
 “Then it swam by downstream ... [The dogs said:] ‘Look where they swim!’ ”
- b. nek kwelek kic 'i **sonow-ok'** 'oolekwohl 'o **segonow-oni**
 I well PERF LOC **be.like-1SG** people LOC **be.like.INT-ATTR.3PL**
 “I am now the way people get to be.”

Likewise, in (6b), the verb meaning “be” or “happen” lacks the Intensive infix in the first clause, referring only to the present state of the subject. In the second clause, referring to how things will be for everybody in the future, the Intensive form appears.

The contrast between the Repetitive and Intensive can be seen in sentences like (7).

- (7) moco ku **megokw** kimi wey 'u-**mokwo-mokwoc-ek'** ko srmrt-rk'
 if that **dog** NEG.FUT finish 3-**REP-bark**-SG TEMP kill-1SG
 “If that dog does not stop barking I shall kill it.”

The verb “bark” is Repetitive, since actual barking consists of a rapidly repeated series of barks, while the word for “dog” in (7) is itself derived as the Intensive of the same verb root; a dog is a habitual barker.

Words with verbal morphological structure can thus come to function as nouns. Such nouns may show Repetitive reduplication or Intensive infixation, and the expected semantic contrast between these categories is also seen in the nominal domain. In (8a) we give some examples of nouns derived as Intensives – like “dog” in (7) – and in (8b) we give a pair of Repetitive nouns.

- | (8) | BASE | | DERIVATIVE | |
|-----|------------|-------------------------|-------------------------|---|
| a. | muhl(koc-) | “sell” | meguhl | “store” (Berman 1982: 206) |
| | mesik- | “be thin” (worms, etc.) | megesik | “weasel” |
| | na'aw- | “catch surf fish” | nega' | “surf fish net” |
| | teykelum- | “bite” | tege'y | “flea” (3 sg. -') |
| b. | hlkrmrkikr | “single knot in a rope” | hlkrm-hlkrmrkikr | “knots in a rope” (Spott & Kroeber 1942: 216) |
| | mrkwrhl | “peak” | mrkwr-mrkwrhl | “series of peaks, mountain chain” |

The Intensive derivatives refer to characteristics or habitual activities, while the Repetitive nouns denote collections of point-like objects.

Before proceeding, we should note that the aspectual opposition between Repetitive and Intensive formations in Yurok appears to be of Algic antiquity. Underlying these formations historically is a pair of reduplicative constructions, preserved in the Repetitive with some reduction and transformed in the Intensive into the present-day infix (Garrett 2001). The re-

constructed ancestors of both Yurok formations are documented in Algonquian languages with comparable functions. The manifestly parallel character of the two reconstructed reduplicative formations supports our treatment of their Yurok descendants as aspectual complements.

2. Event-external single-occasion repetition. Two sorts of event-external repetition can in principle be distinguished, as indicated in (6), depending on whether an event is repeated on the same occasion or multiple occasions. Habitual and characterizing meanings fall into the multiple-occasion class, of course, but the Yurok Intensive can also express repetition of a single type of event on the same occasion. In such cases translations like “do repeatedly” or “keep doing” may be appropriate.

In an Intensive expressing repetition on a single occasion, the precise interpretation depends partly on the aspectual properties of the base verb. We have so far found examples of two varieties. First, if the base verb denotes an activity, then a single-occasion Intensive simply denotes the repetition of that activity. A few examples of this general type are cited in (9).

(9)	BASE		INTENSIVE (SINGLE-OCCASION REPETITION)
	a. crwrhs-	“point”	cuwrh(s-) “point repeatedly”
	b. nii’n(ow-)	“look (for)”	negii’n(ow-) “look around (for)”
	c. paahcew(-)	“move”	pegaahcew(-) “move around”
	d. swrrk’ws	“the wind gusts”	swrgrrk’ws “the wind gusts repeatedly”

We will give two textual examples of the Intensive in (9c). The first appears in (10).

(10)	’o	new	kaap’olihl	yo’	’o	pegaahcew
	LOC	see	plant	there	LOC	move.INT
	“(Then he almost heard someone speaking to him and looked back ...) He saw a plant moving ...”					

Kroeber translates “moving” in (10), but a plant is rooted and must therefore be making a series of plant-sized movements; in his field notes, Kroeber in fact wrote both “moving” and “shaking”. The sense of “moving around” is also present in our second example, in (11). Here the situation is that Coyote is lurking outside the sweathouse. In the first sentence he hears plural subjects eating together, while in the second sentence he hears a single subject repeatedly moving – as it were, first washing, then dressing, then having breakfast.

(11)	’ap	’o	ko’mo’y	’oc	ko’l	ka	nep-e’m	cmeyonen
	PAST	LOC	hear.3SG		something	PRES	eat-PL	evening
	kwushi’	’owoohl	koy numi	koy	’o	ko’moy-o’m	pegaahcew-o’m	kolin
	then	next.morning	very early		LOC	hear.3SG	move.INT-3SG	one
	“In the evening he heard people eating ... Next morning very early he heard one of them moving.”							

Second, if the base verb denotes an accomplishment “do X with result Y”, then a single-occasion Intensive means “do X with result Y, repeatedly”. Intensives of this type are cited in (12) from Proulx (1985); their morphology shows that these verbs are accomplishments. All are formed with a medial element expressing manner of motion – “drift”, “fly”, “run”, and “swim” in the examples cited – and an initial element delimiting that motion. The de-

limiting initials in (12) mean “back” and “in a circle”. The Intensives in (12) all express the repetition of activity and result phases of their accomplishment base verbs – for example, flying repeatedly back to a bird feeder.

(12)	ACCOMPLISHMENT BASE	INTENSIVE (RESULT REPETITION)
	yohp-en- “drift in a circle”	yegohp-en- “drift around in circles”
	kwomhl-en- “drift back”	kwegomhl-en- “move back and forth on the water”
	kwomhl-ohl- “return (of a bird), fly back”	kwegomhl-ohl- “fly back and forth (of a bird), e.g. to a feeder”
	kwomhl-o’rep- “run back”	kwegomhl-o’rep- “run back and forth”
	kwomhl-ur- “swim back”	kwegomhl-ur- “swim back and forth”

Interestingly, we have not seen clear cases where the Intensive of an accomplishment verb expresses the repetition of only the activity phase but not the result phase. Such a hypothetical Intensive could mean something like “fly around and then back”. If this gap is not accidental, it is of potential interest for at least two reasons. First, as we will discuss later, there *are* some contexts where the Intensive is construed semantically with a morphological subpart of its base. Second, not all pluractional categories show the same restriction as Yurok. For example, Latin has an Iterative suffix expressing event-internal repetition (Garrett & Slatin in preparation). With an accomplishment verb, as in (13), the resulting interpretation is “to repeatedly engage in the activity phase of the base verb”.

(13)	LATIN ACCOMPLISHMENT VERB	ITERATIVE
	advenīre “arrive”	adventāre “approach”
	cadere “fall”	cassāre “totter”
	dēlicere “entice away (from)”	dēlectāre “exert fascination on”
	labefacere “loosen”	labefactāre “work at loosening”
	prehendere “seize, take hold of”	prensāre “grasp at, keep grasping”

We take the difference between pluractional categories that do and do not license this activity-phase repetition interpretation to be a consequence of the fundamental difference between the event-internal repetition expressed by the Latin category and the event-external repetition expressed in Yurok.

3. Intensification. Robins chose the term “intensive” because the Yurok infix sometimes has what he considered an “intensive” function. This is an interesting area of research for at least two reasons. First, it is not obvious why a category that expresses event-external repetition should also come to express “intensification”, whatever exactly that is. Second, the development of apparently “intensive” meanings in categories of repetition is documented elsewhere, for example in Latin and Alabama (Hardy & Montler 1988, Kimball 1991).

We have found apparent “intensive” meanings in two main contexts, negative and stative contexts. The first of these was already noted by Robins, who wrote in his grammar that when a negative particle is construed with the Yurok Intensive “the negation is intensified” (1958: 82). Ordinary semantic composition would predict, if Intensives express event-external repetition, that the negative of an Intensive would mean that it is not the case that the base action is repeated. The actual meaning, as illustrated in (14), is that the base action never takes place.

- (14) a. **nima** 'wegookwc'
NEG 3.gamble.INT
 “He never gambled.”
- b. **nimi** 'u mep **kego'moy-ok'** wi'it we-sook
NEG PAST PAST **hear.INT-1SG** it 3-sort
 “I have never heard anything like it.”
- c. hikon kwelekw **nimi** wi' mehl ho **regoowo's** 'oohl
 formerly well NEG it CIRC PAST **smoke.INT.3SG** people
 “In former times no one used pipes like this for smoking”, literally “people did not smoke in this way.”

For example, in (14a) the interpretation is “he never gambled” rather than “he didn’t gamble regularly”. The Intensive still expresses regularity, but regularity of the negative. We attribute this to what Horn calls “NEG-raising”, defined as “the availability of a lower-clause reading or understanding for a higher-clause negation” (Horn 1989: 308). In the case at hand, a negative Intensive signifies not that an event is not regular but that it is, as it were, regularly not; i.e. NEG(**REPET**(X)) → **REPET**(NEG(X)). Note that the relation between this meaning and simple negation involves semantic “intensification” only in a loose sense.

Stative predicates provide the second context where apparent “intensive” meanings arise. Of course, often enough the Intensive form of a stative verb is used when there are multiple instantiations of the state. This may occur if a state holds of many subjects, for example the salmon in (15a), or if a stage-level state holds of one subject at many different times, as in (15b-c).

- (15) a. ki **kwegomhl-e'mmi'** **kegesomewt-ehl** so mr'wrmry
 FUT **return.INT-PL** because **be.homesick.INT-3PL** to head.of.river
 “(It shall come to pass that the salmon) shall return, because they are homesick, to the head of the river.”
- b. nek cpi yo' **kegesomew-ok'**
 I always PTCL **be.lonely.INT-1SG**
 “I always get lonesome.”
- c. ciweyk' **cegiweyk'**
 be.hungry.1SG **be.hungry.INT.1SG**
 “I am hungry ... I am often hungry.”

Note that the verbs in (15a-b) are morphologically very closely related.

Even an individual-level stative verb may show an Intensive form in contexts with a coerced nonstative reading, as in (16).

- (16) cu ki ni'in-o' to' kic ni **negi'in-o'**
 HORT FUT be.two-PL and PERF LOC **be.two.INT-PL**
 “Let us cohabit. We have been going together all this time.”

This example shows a nice minimal pair. The first sentence is literally “Let us be a couple.” The second should likewise mean “We have been a couple”, but an activity reading instead emerges: “We have been acting as a couple.” The Intensive form expresses the repetition of this activity.

Yet even putting aside examples of these types, there are some Intensives based on stative verbs where the interpretation does seem to involve “intensification” and a translation with “very” seems appropriate. Actual textual examples are relatively uncommon, and what follows is work in progress.

We begin in (17a) with a Yurok expression reported by Robert Spott, who elsewhere defined the same word *segeyoyhl* as “the time of year when the grass turns brown” (Spott & Kroeber 1942: 168).

- (17) a. kic **segey**-oy-hl
 PERF **burn.INT**-PASS-3PL
 “Growth is burned dry.”
- b. nimi ki kooyc ko'mi **tegenonihl**
 NEG FUT buy excessively **be.expensive.INT**
 “I shall not buy it, it is too expensive.”

Ignoring the force of the Intensive infix, the form plainly means “they have been burned”, referring to the grass that has all turned brown by this time of year. An Intensive is justified by the mass or plural status of the burned grasses. Any burning of grass, including natural summer browning, is of course a situation in which the degree of overall burning increases as the quantity of individual burnt grasses increases. In this context an intensive meaning “thoroughly burn” applied to a mass subject emerges more or less automatically from a multiple-event interpretation applied to individuated subjects. A burning is truly thorough if everything has burned.

This example suggests one general pathway to “intensification”. A predicate in which a state results from distributed predication may potentially yield an “intensive” reading if event multiplication is applied to the distributed predication. This mechanism also underlies the example in (17b). The verb *tenonihl* “be expensive” is derived from an initial element *ten-* and a medial element *-onihl*. This medial element means “cost”, “pay”, or the like, and it is clear from the data in (18) that *ten-* means “many” or “a lot of” rather than “to a great degree”.³

(18)	DERIVED VERB		MEDIAL ELEMENT
	ten-	“be much, be many”	
	ten-onihl	“be expensive”	-onihl “cost”, “pay”, etc.
	ten-owen-	“take much of, take more of”	
	ten-owohl-	“talk too much”	-owohl “talk”
	ten-pey-	“eat much”	-pey “eat”
	ten-sew-	“catch a lot of”	-sew “catch”
	ten-unow-	“grow thickly, grow in clumps”	

In short, the word “expensive” conceals a complex predicate meaning something like “costs a lot” – whether modern coins and bills or the traditional currency of dentalium shells. It is this mass to which the quantificational force of the Intensive applies.

We illustrate a final class of “intensification” examples with the two quotations in (19).

- (19) a. muscen kwilekw neka' ne-**tegenumonoksim**-ek'
 really well I 1-**wish.bad.luck.on.INT**-SG
 “I sure want (him) to die.”

- b. nek soo kic **kegeycek** mi' cpaanik' wi k'e-me'wom-e'm-o'w
 I think PERF **be.tired.INT** because be.long here 2-come.from-PL-2PL
 "I am sure you are tired, for your voyage here has been long."

The verbs in these quotations denote experienced states, and in (20) we give a full dossier of examples of this type known to us. The examples in (20a-b) are distinguished by suffix.

(20)	BASE VERB (EXPERIENCED STATE)		INTENSIVE	
a.	keyc-ek	"be tired"	kegeyc-ek	"be very tired" (19b)
b.	kaam-oksim-	"dislike"	kegaam-oksim	"really dislike" (K 74.25)
	tenumon-oksim-	"wish bad luck on"	tegenumon-oksim-	"wish lots of bad luck on" (19a)
	t-oksim-	"admire"	teg-oksim-	"praise" (R 257)
	wa's-ok(sim-)	"pity, be sorry for"	wega's-ok(sim-)	"be very sorry for"
				(Waterman & Kroeber 1938: 76)

The medial suffix *-ok(sim)* in (20b) refers to thinking, feeling, or experience, and is further illustrated in (21).

(21)	INITIAL ELEMENT		DERIVED VERBS IN <i>-oks(im)</i> (Proulx 1985)	
	cpaa (ni)	"far, late, long"	cpaan-oks-	"think for a long time about"
	hoor-	"weave"	hoor-oks-	"have clever but changing and unreliable thoughts"
	kaam-	"bad"	kaam-oksim-	"dislike, hate" (\leftarrow "have bad thoughts")
	kimol-	"be bad"	kimol-oksim-	"have bad thoughts about"
	hlmey-	"fear"	hlmey-oksim-	"think someone frightful" (\leftarrow "have frightened thoughts")
	skew-	"good"	skew-oksim-	"like" (\leftarrow "have good thoughts")
	kim soon-	"be badly"	kim soon-oksim-	"have bad thoughts about"
	skuy soon-	"be well"	skuy soon-oksim-	"have good thoughts about"
	*t- (> '-)	"be"	t-oksim-	"admire" (\leftarrow "have real thoughts")
	wa's-	"poor"	wa's-ok(sim-)	"pity, be sorry for"

The data in (21) show that a verb formed with the suffix *-ok(sim)* means basically to have feelings about someone or something that have the quality of the verb's initial element: good feelings, bad ones, long ones, and so on.

The relationship between the verb type in (20a) and the verb type in (20b) and (21) is shown by the verbs in (22).

- (22) a. keyc-ek "be tired" (20a)
 b. keyc-oksim- "get tired of" (Proulx 1985)

Both verbs mean "feel tired"; the difference is that *keyc-oksim-* means "have tired feelings directed at something or someone else", while *keyc-ek* just means "have tired feelings". In (23) we give a few additional uninflected verbs of experienced state in *-ek*.

(23)	kelom-	"turn"	kelomek	"be worried"
	tm-	"shoot"	tmek-tmek	"have an aching pain" (Repetitive)
	tool-	"sideways"	toolek	"get caught (rope, etc.)"

It should be clear at this point that the verbs in (20) not only share general semantic characteristics but belong to a derivational subsystem governed by a single argument structure scheme. The subjects of such verbs have feelings or thoughts of which their initial element is predicated, and within this subsystem the Intensive yields the semantic effect of “intensification”. We suggest that this is because the Intensive quantifies over the implicit thoughts or feelings expressed by the medial suffix. In effect, the Intensive verbs in (20) mean “have a lot of tired thoughts”, “a lot of bad thoughts”, and so on. Thus, as shown very schematically in (24), the verb *kaam-oksim*- “dislike” in (20b) involves an Experiencer *x* who dislikes, a Theme or Cause argument *y*, and, we suggest, also an Experience argument *z*. It is this element, the Experience argument, which is pluralized by the Intensive.

- (24) *kaamoksim*:- $\exists s$ & Experiencer(*s,x*) & Theme(*s,y*) & Experience(*s,z*) & *kaam*(*z*)
kegaamoksim- “really dislike”: $\exists s$ & ... & Experience(*s,z*) & *kaam*(*z*) & **PLUR**(*z*)

To summarize, the Yurok Intensive seems to express actual semantic “intensification” only in two kinds of context. First, with negatives the process of NEG-raising produces an interpretation “never”, which Robins viewed as an intensification of the meaning “not”. Second, complex stative predicates may have internal elements that are subject to Intensive quantification. In some cases, by saturation of an internal element, this may produce the effect of “intensification”. The Intensive by itself does not express an “intensive” meaning *per se*, however, and examples that seem to be “intensive” do not seem to be found with the full range of stative predicates. For example, we have not yet found apparent “intensification” with the common and morphologically underived class of verbs like “big” or “long”, or with color predicates.

4. The double Intensive. A final question we will consider is the semantic effect of double Intensive formation of the type shown in (2) above. In his grammar Robins wrote only that the double formation expresses “further intensification” and is “not ... as freely productive” as the ordinary Intensive (1958: 84), but he later suggested that double Intensives may convey the meaning “always” as opposed to “often”, comparing *begi* “it is often said” and *liigi* “it is always said” (Robins 1985a: 640). While the examples in (5) show that the single Intensive can mean “habitually” or “always”, the double Intensive always has this meaning. In other words, the single Intensive, like the plain uninfixed verb, is compatible with a translation “always” but does not by itself express that sense.

Isolated glosses are the least probative class of evidence, but for what it is worth we note that at least the two double Intensive verbs in (25) are glossed with habitual adverbial expressions.

- (25) a. *kemoloc*- “be jealous” *kiigemoloc*- “be jealous by nature”
 b. *na’aw*- “catch surf fish” *niiga’aw*- “catch surf fish as an occupation”

In (25b) a gloss like “catch a lot of surf fish” would in principle have been possible, but it was not chosen. To be sure, the more common pattern in isolated glosses is that this effect is absent, and that single and double Intensives are listed with no distinction noted. Here we pursue the question using textual examples of the five additional verbs in (26a). The verbs mentioned in (26b) also appear to pattern like those in (26a), but for reasons of time or analytic complexity we will discuss them here.

(26)	BASE VERB	INTENSIVE	DOUBLE INTENSIVE	BASE GLOSS
a.	ke'yonem- (29a)	[no example]	kiige'yonem- (29b)	“release”
	raayo'r-	regaayo'r- (28a)	riigaayo'r- (28b)	“run past”
	syo'oogec-	[no example]	syiigo'oogec- (30b)	“make noise, sing”
	terum- (31a)	tegerum- (31b)	tiigrwrn- (31c-d)	“speak”
	tmool-	tmegool- (27a)	tmiigool- (27b)	“shoot”
b.	cwin(kep-)	cwegin(kep-) (R 166)	cwiigin(kep-) (R 282)	“speak”
	nr'rnrh	nrg'rnrh- (K 74.4)	niigr'rnrh- (K 74.5)	“snare”
	rohsim-	[no example]	riigohsim- (R 142)	“throw”

We begin in (27) with Intensives based on the common verb *tmool-* “shoot”.

- (27) a. si **tmegool-i-**
 IRR **shoot.INT-PASS-3SG**
 “He came near being shot more than once.”
- b. si mehl **tmiigool-i-** mehl hookckehl
 IRR CIRC **shoot.INT.INT-PASS-3SG** with arrow-flaker
 “It would have been shot at with arrow-flakers [had Wohpekumeu not spoiled it].”

The examples are comparable because both are passive and both occur with the irrealis particle *si*. If we translate the passives as actives with generic subjects, then the example in (27a) means “it nearly happened that they shot him more than once” and the example in (27b) means “it would have happened that they could shoot at it with arrow-flakers”. The shooting in (27a) is episodic and repeated, while in (27b) the shooting would have been perpetual and habitual. In (27b) “often” would not add the intended meaning, and likewise in (27a) “always” could not be used.

In (28) we cite Intensives based on another common verb, *raayo'r-* “run past” (*raay-* “pass” + *-o'r-* “run”)

- (28) a. co hl'o'ronep-e'm k'i kwen co ko **regaayo'r-ep-e'm**
 IMPV stop.moving-2SG wherever PTCL **run.past.INT-REFL-2SG**
 “Stop at each place you pass (and wherever there is a fishing rock leave some of your scales there.)”
- b. tu' wi'iit **riigaayo'r** ku wrgrs
 and it **run.past.INT.INT.3SG** the fox
 “A fox used to cross over it [a log].”

The simple Intensive in (28a) is used to express repeated running past on a single occasion, while the double Intensive in (28b) has habitual force.⁴

A third double Intensive example, based on *ke'yonem-* “release”, is cited in (29b).

- (29) a. nes-ek' ti'n co ki mehl **ke'yonem-e'm** k'e-kap
 1.think-SG FUT CIRC **release-2SG** 2-medicine
 “I thought you would let me have your medicine.”
- b. kelew kwelekwit cpi numi mehl **kiige'yonem-e'm** k'e-kap
 you them always very CIRC **release.INT.INT-2SG** 2-medicine
 “You always let them have your medicine.”

A contrast is intended between (29a) and (29b), which occur in close proximity in a single text. In (29b), the sense is universal, habitual, or characterizing. Note that we cannot contrast the double Intensive in (29b) with a single Intensive, which is not attested in the text.

In (30) we cite another verb (*syo'oogec-* “make noise, sing”) whose simple Intensive we have not yet found attested textually.

(30) a. “After a time he [the small salmon] knew that they [the other fishes] all slept, so he began to sing. Then one lying at *mehlku* [“the corner farthest from both entrance and exit] said, ‘Ah, you have begun to sing! You are always doing that; I do not like it.’ It was Sturgeon, Kohko, who said this, for he wished to sleep.”

b. k'e-**syigo'oogic**-k' neki' kito ckey-ik'
 2-make.noise.**INT.INT**-SG I want sleep-1SG
 “I don't like this singing [*literally* ‘You always make noise’], I want to sleep.”

The quotations in (30a-b) represent two versions of the same text, one recorded in English and one in Yurok. Sturgeon is quoted as saying “You are always doing that” in the more expansive text in (30a), which makes it clear that the real sense in (40b) is “You are always singing”.

Finally, in (31) we present a more uncertain example (*terum-* “speak”).

(31) a. noohl 'o **teru'm**
 then LOC **talk.3SG**
 “(Then he goes down to the river.) Then he talks; (first he kicks it where they will build the dam; then there he speaks across the river)”

b. ki nowor noohl**tegerum** ki 'wes'onah
 FUT be.light then **talk.INT** the sky
 “(As long as they are at work on the dam, so long you will not sleep.) All night long you will talk to the world. (It will always be so.)”

c. 'o ko hegol-e'm wistu' ki soo **tiigrwrmr**
 LOC TEMP tell-2SG and so FUT thus **speak.INT.INT**
 “Then you instructed me how to pray.”

d. nekah co **tiigrwrmaari'n-e'm**
 us IMPV **speak.INT.INT**-2SG
 “You must speak to us (when you are afraid of this).”

The verb *terum-* was known to Robins only in its Intensive form, but a full dossier of related forms can be displayed from older sources. The simple form in (31a) is used in a context where speaking is merely one of a series of actions. Within the same text, the Intensive form is used to express repeated talking all night long in (31b). The double Intensives in (31c-d) unfortunately show additional derivational morphology, but the underlying root is the same and the context in both examples is habitual or characterizing.⁵

To summarize this section, we have added several examples to a dossier of evidence supporting the view that double Intensives may express characteristics, habits, or situations that are repeated “always”, as opposed to situations that are simply repeated. Simple event-external repetition is expressed by the single Intensive form.

Our interpretation of the Yurok double Intensive may help answer a problem of mor-

phology and semantics in an entirely unrelated language. Like Yurok, Latin has a pair of distinct morphological devices for expressing event-internal and event-external repetition: an Iterative suffix expressing event-internal repetition; and a Frequentative suffix expressing event-external, multiple-occasion repetition (Garrett & Slatin in preparation). Typical Frequentatives include *cantit̄are* “sing repeatedly” (*canere* “sing”) and *scriptit̄are* “be in the habit of writing” (*scribere* “write”); Iteratives include *conflict̄are* “strike frequently, buffet” (*confligere* “collide”), *duct̄are* “lead around” (*dūcere* “lead”), *clāmit̄are* “shout repeatedly” (*clāmāre* “shout”), and *volit̄are* “fly about” (*volāre* “fly”). As these forms show, the Latin Iterative suffix has the two productive allomorphs *-t-* and *-it-*. Their distribution and history need not be discussed here; what is crucial is that the Frequentative suffix *-tit-* appears to be compounded from the two Iterative suffixes. Historically, as sketched in (32), the Latin Frequentative seems to be the Iterative of an Iterative.

- (32) HYPOTHETICAL DERIVATION OF THE LATIN FREQUENTATIVE
- | | | |
|--------------|------------------------------------|---|
| veh-ere | “carry” | (<i>cf.</i> t̄mool- “shoot”) |
| vec-t-āre | “carry around” (Iterative) | (<i>cf.</i> tmegool- “shoot often”) |
| vec-t-it-āre | “carry habitually” (Frequentative) | (<i>cf.</i> t̄miigool- “shoot habitually”) |

The question raised by this analysis is like the question posed by the Yurok double Intensive: why precisely does doubling a repetition marker produce a multiple-occasion repetition marker?

Our preliminary answer, at least for Yurok, is that habitual readings may emerge from iteration of repeated-aspect markers through a form of pragmatic strengthening. The literal meaning of a double Intensive should be that a type of event happens repeatedly over multiple periods of observation in which it might happen. In such circumstances it is likely that the event type generally happens with some consistency: it is habitual or typical. We suggest that the development of a habitual sense in double Intensives may represent a grammaticalization of this pragmatic association.

5. Conclusion. We have argued that the Yurok Intensive is an event-external repetition marker, and have shown how its semantics interact with verbs of different aspectual classes and with negation, and in the double Intensive, to produce an apparent variety of meanings. We have also suggested some ways in which our findings relate to the behavior and description of pluractional markers in other languages.

There are some questions still to be resolved in future research, and other areas we plan to investigate. These include the interaction of the intensive with other aspectual markers, such as the perfect; the semantics of deverbal nouns with single and double Intensive marking; and more explicit characterization of the semantics of the Intensive marker – in particular, considering whether all of the uses of the Intensive can be accounted for within a single general meaning.

Appendix: Sources of Examples

Field notes are cited by notebook and page; e.g. **K** 40.20 = Kroeber notebook 40, p. 20.

5a: T. T. Waterman Yurok field notebook A, p. 106 (*cf.* Waterman 1923: 376)

5b: Domingo of Weitchpec, “Buzzard’s Medicine”, 1907 (**K** 75.26); tr. Kroeber (1976: 313)

5c-d: **R** 107, 57

6a: Domingo of Weitchpec, “Turip Young Man and His Dogs”, 1906 (**K** 67.12); tr. Kroeber (1976: 310)

6b: Mary Marshall, Death purification medicine, 1906 (**K** 66.19)

- 7: **R** 110
 10: Domingo of Weitchpec, “Buzzard’s Medicine”, 1907 (**K** 75.25); tr. Kroeber (1976: 313)
 11: Mary Marshall, “Coyote Tries to Kill the Sun”, 1927 (Sapir 2001)
 14a: Pekwan Doctor, “Gambling with Kapuloyo”, 1907 (T. T. Waterman Yurok field notebook 83, p. 18); cf. Kroeber (1976: 385)
 14b: **R** 127
 14c: Florence Shaughnessy, “The First Salmon Rite at Wehlkwew”, 1951 (**R** 172-73)
 15a: Mabel Brantner, “Wohpekumew and the Salmon”, 1951 (**R** 162-63)
 15b: Captain Spott, Medicine song against rough water, 1906 (**K** 67.47)
 15c: T. T. Waterman field notebook B, p. 29
 16: Spott & Kroeber (1942: 234)
 17a: Robert Spott apud Kroeber (1960: 996)
 17b: **R** 127
 19a: Juanita, Brush Dance medicine, 1907 (**K** 76.7)
 19b: Florence Shaughnessy, “The Young Man from Serper”, 1951 (**R** 168-69)
 27a: Waterman (1923: 381)
 27b: Captain Spott, “The Obsidian Cliff at Rekwoi”, 1907 (**K** 76.6, 8), tr. Kroeber (1976: 436)
 28a: Florence Shaughnessy, “The First Salmon Rite at Wehlkwew”, 1951 (**R** 176-77)
 28b: Florence Shaughnessy, “The Fox and the Coon”, 1951 (**R** 164-65)
 29: Juanita, Brush Dance medicine, 1907 (**K** 77.16-17)
 30a: Billy Werk, “A Formula for Salmon”, 1907, Kroeber (1976: 250)
 30b: Billy Werk, ‘A Formula for Salmon’, 1907 (T. T. Waterman Yurok field notebook 84, p. 18)
 31a-b: Mary Marshall, Kepel Fish Dam formula, 1906 (**K** 66.4, 12), ed. Waterman & Kroeber (1938: 75, 76)
 31c: Spott & Kroeber (1942: 240)
 31d: Stone of Weitchpec, Weitchpec Deerskin Dance formula, 1906 (**K** 78.24-32), ed. Buckley (1982: 393)

Notes

* Our work is supported by National Science Foundation grant BCS-0004081 to the University of California, Berkeley (<http://linguistics.berkeley.edu/~yurok>). We use the following non-obvious abbreviations:

ATTR = attributive mood

CIRC / IRR / LOC / TEMP = circumstantial / irrealis / “locative” / temporal preverbal particle

K = field notes of A. L. Kroeber

R = Robins (1958)

Otherwise unattributed data are cited from the lexicon of Robins 1958. We use a transcription scheme identical to that of Robins except that doubling indicates vowel length, apostrophes replace glottal stops, /k^w/ is written *k^w*, /ɬ/ is written *hɬ*, and the vowel /ɨ/ is written *r*.

¹ So Waterman (1923: 380); see also Spott & Kroeber (1942: 216), Kroeber (1976: 312, 405), and Robins (1985a: 640, 1985b: 728). Waterman also used the term “frequentative” throughout his unpublished field notes.

² Strictly speaking, Bybee, Perkins & Pagliuca (1994: 127) define “iterative” vs. “frequentative” aspect as repetition on a single occasion vs. multiple occasions; i.e. they contrast (6a-b) vs. (6c).

³ For the medial elements *-pey* and *-sen* see Proulx (1985: 131, 136); for *-onohl-* cf. *ckenonohl-* “talk maliciously” (*cken-* “be scarce, be few”). For *-onihl-* “cost” or “pay” seems better justified than “expensive” by the actual data cited by Proulx (1985: 121).

⁴ The example in (38b) is not unlike (5a), an ordinary Intensive which occurs in a habitual context. What is crucial is that *all* examples of the double Intensive have this special extra reading and that the single Intensive only has it sometimes (when something *other* than its Intensiveness prompts it).

⁵ The form *trgrwm-* “speak, greet” is clearly the Intensive of **trgrwm-*, which is in turn clearly related to *terum-*. Apart from *r*-coloring diminutivization, the details of the derivation are unclear to us now, as are the further derivational histories of *tigrwm-r* and *tigrwm-aari'n-*.

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