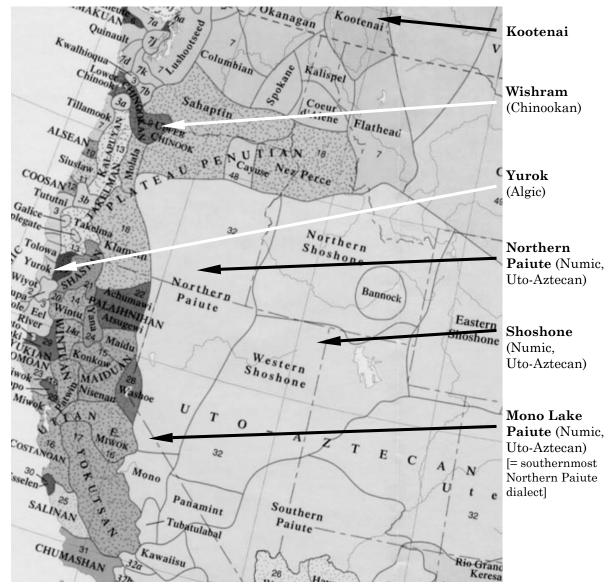
The evolution of complex predicates

Andrew Garrett University of California, Berkeley

1 Introduction

1.1 Language background

1 Languages of the western U.S. from central California to the Olympic peninsula



2 Nonobvious abbreviations

ABS = absolutive, CONT = continuous, ERG = ergative, INESS = inessive, MM = middle marker, MOM = momentaneous, NOM = nominative, OBL = oblique, PTCP = participle, TRANSL = translocative

1.2 Complex predicates

- 3 a Complex predicates: 'each component ... contributes to the predicate information normally associated with a head.' (Bowern 2006)
 - b But what is a 'predicate'? It seems to be a semantic notion, and talk about complex predicates involves some understanding of 'single' vs. 'complex' meanings.
- 4 a Functional complexity, e.g. serialization: distinct formal elements combine into one semanticsyntactic predicate.
 - b Formal complexity, e.g. polysynthesis: elements that contribute distinct semantic-syntactic information combine into one morphologically complex word.
- 5 a 'How do complex predicates arise in syntax? Is it from parataxis, or from metaphor, or subordination, or nominalization? or all of the above in different circumstances?' (Bowern 2006)
 - b **§2** Functional complexity: From a starting point with two predicates, how does a construction with a single complex predicate arise?
 - c §3 Formal complexity: How do morphologically complex words arise?
 - d **§4** Does the story of complex predicates consist just of the story of functional complexity plus the story of formal complexity?

2 Predicate unification

2.1 General remarks

- 6 From a starting point with two predicates, how does a construction with a single complex predicate arise?
- 7 a An underrated ingredient of semantic change, or those changes called 'permutation' by Stern (1931), is the specialized or enriched meaning that may arise in some specific constructional context.
 - b So Meillet (1905-1906 [1921: 239]): 'Quelques changements ... proviennent de la structure de certaines phrases, où tel mot paraît jouer un rôle special.'
 - c Part of our task is to figure out the specific constructional and usage details of the source of a pattern of interest.
 - d The English prospective future *go* construction is not a complex predicate *stricto sensu*, but it has come up more than once at this meeting. Discussion based on Garrett (to appear).

2.2 Inceptive **go** (MED 11a, OED 34a): 'begin, turn, proceed (to do)'

- 8 **go** + gerund in Middle English
 - a [I]f u **gest** ['goest'] herof **to disputinge** ... (a1250 *Owl & Night*. 873)
 - b He ... bad the seruant coles for to brynge, That he anon myghte **go to his werkynge**. (c1395 Chaucer *CT. CY.* (Manly-Rickert) G.1115)
- 9 **go** + gerund in Early Modern English
 - a I goe to writing or reading, or such other businesse as I have.

(1577 B. GOOGE Heresbach's Husb. I. (1586) 3b)

b O rare, your excellence is full of eloquence, how like a new cart wheele my dame speakes, and she lookes like an old musty ale-bottle **going to scalding**.

(1600 Thomas Dekker The shomakers holiday)

- 10 Adjunct **going** + infinitival
 - a For *Zelmane* seeming to strike at his head, and he **going to warde it**, withall stept backe as he was accustomed, she stopt her blow in the aire, and suddenly turning the point, ranne full at his breast (1593 Philip Sidney *The Covntesse of Pembrokes Arcadia*)
 - b They **going to dance**, each vnhaspes his weapon from his side, and gives em to the torchbearers. (1608 Thomas Middleton *Your five gallants*)

11 Finite **be going** + infinitival

- a I having shifted no sockes in a sea night, the Gentleman cryed foh; and said my feete were base and cowardly feete, they stuncke for feare. Then hee knock'd my shooe about my pate; and I cryed O, once more. In the meane time comes a shag-hair'd dogge by, and rubbes against his shinnes. The Gentleman tooke the dog in shagge-haire to be some Watch-man in a rugge gowne; and swore hee would hang mee vp at the next doore with my lanthorne in my hand, that passengers might see their way as they went without rubbing against Gentlemens shinnes. So, for want of a Cord, hee tooke his owne garters off; and **as he was going to make a nooze**, I watch'd my time and ranne away. (1611 Cyril Tourneur *The atheist's tragedie*)
- b Now, when the Eve was come, and that **one of the Souldiers was going to untrusse a point**, when he came up to me for some Ockame to wipe his posteriors, I rose up, and whispering him in the eare, secretly said unto him

(1622 James Mabbe [tr.] The rogue; or, The life of Guzman de Alfarache)

2.3 Prospective future **go**

- 12 Examples where the complement clause is passive make it clear that **go** has lost any sense of motion or agency.
 - a B How now, what ayles your Master? ... Where is his Cloake and Rapier?
 - O He has given vp his Cloake, and his Rapier is bound to the Peace: If you looke a little higher, you may see that another hath entred into hatband for him too. Sixe and foure have put him into this sweat.
 - B Where's all his money?
 - O 'Tis put ouer by exchange: his doublet was going to be translated, but for me

(1630 [performed 1604-1605?] Thomas Dekker The honest whore, with the humors of the patient man, the impatient wife, Part II)

b He is fumbling with his purse-strings, as a school-boy with his points when **he is going to be whipped**, till the master weary with long stay forgives him.

(1628 Earle *Microcosmography* §19 [mod. spelling])

- c [O]n the morrow the governor entered my room, threatening me still with more tortures, to confess; and so caused he every morning, long before day, his coach to be rumbled at his gate, and about me, where I lay, a great noise of tongues, and opening of doors; and all this they did of purpose to affright and distract me, and to make me believe I was going to be racked again, to make me confess an untruth; and still thus they continued every day of five days to Christmas. (1632 William Lithgow *Travels & voyages* [mod. spelling ed. 1814])
- d You see that My Magazine is going to be taken from Me.

(1642 Chas. I Sp. Wks. 1662 I. 401)

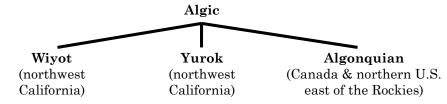
2.4 What we learn

13 Presumably, for each crosslinguistically common complex predicate pattern, we will be able to find the precise constructional context in which the new, complex sense first arose.

3 Where did all the verbs come from?

3.1 Yurok in context

14 a



- b The usual assumption: Proto-Algic was spoken somewhere between Chinookan and Kootenai; the ancestors of Wiyot and Yurok speech came down the Columbia and then the Pacific coast.
- c What follows is based on Garrett (2004); cf. Blevins (2005). Data are cited from Garrett et al. (2005) and our online lexicon (<u>http://corpus.linguistics.berkeley.edu/~yurok/lexicon.html</u>).

3.2 Yurok verb structure

15 a Just as in Algonquian and Wiyot, morphologically complex words have a tripartite structure in Yurok:

initial + (optional) medial suffix + final suffix

All verbs and some (words that pattern syntactically as) nouns have this structure.

- b A word with no other initial will have a default initial, either h-, l-, or r-.
- c All inflected verbs have a class marker **-e-**, **-aa-**, **-o-**, or **-oo-** followed by inflectional endings. If the class markers are analyzed as final suffixes then all inflected verbs have final suffixes; otherwise some inflected verbs have a null final. Here the class markers are treated as final suffixes or parts of final suffixes.
- d Initials are an open class; medials and finals are closed classes. The dossiers below are quite incomplete (both as to suffixes and as to forms bearing suffixes).
- 16 Representative initials in complex forms below (given here in no special order)

pl- che'l- lo'og- kaam- skew-, skuy- cheyk- kwer- laay-, raay- kwomhl- hlmey- tek-	'big' 'dry' 'black, dark' 'bad' 'good' 'small' 'sharp' 'alongside' 'back' 'mean' 'stuck together'	mewol- trkt'rrp- s'oop- kwry- 'wrrgry- sit- him- chpur- chpur- chwink- hlk- weno'om-	<pre>'sweep/swept, wipe(d)' 'hit' 'hit' 'whistle' 'white person' 'chip(ped)' 'fast' 'careful' 'speak' 'earth, ground, mud' 'in a particular place'</pre>
tek-	'thick'	son-	'in a particular way'

17 Medial suffixes I: Gestalt

a <u>-ohk-</u> 'round'

pl-ohk-eloye- 'be big' (round things): initial *pl-* 'big', final *eloye-* 'state/appearance' *r-ohk-oot-e-* 'roll': default initial *r-*, medial *-oot-* 'induced motion'

b <u>-oks- 'flat'</u> cheyk-oks-e- 'be narrrow (flat things): initial cheyk- 'small' pl-oks-e- 'be big' (flat things): initial pl- 'big'

- c <u>-oyk- 'long flexible object'</u> che'l-oyk-e- 'be dry' (long flexible object): initial che'l- 'dry' r-oyk-e- 'flow, melt away': default initial r-
- 18 Medial suffixes II: Salient natural classes
 - a <u>-e'r- 'trees, sticks, etc.'</u> lo'og-e'r-ono- 'be charred' (trees, sticks, etc.): initial lo'og- 'black'
 - b <u>-ohp-'water'</u> kaam-ohp-e- 'be rough water': initial kaam- 'bad' skew-ohp-e- 'be calm water': initial skew- 'good'
- 19 Medial suffixes III: Body parts
 - a <u>-ehlk-</u> 'body, earth' him-ehlk-epe- 'crawl fast': initial him- 'fast', final -epe- 'self-oriented activity' kaam-ehlk-ese- 'be dirty, rough': initial kaam- 'bad', stative final -ese-
 - b <u>-etew-~-rtew-</u> 'hand, finger' mewol-etew-e- 'wipe one's hands: initial mewol- 'swept, wiped' trrkt'rrp-rtew-e- 'clap one's hands': initial trkt'rrp- 'hit'
 - c <u>-e'wey- 'face'</u> mewol-e'wey-e- 'wipe one's eyes': initial mewol- 'swept, wiped' s'oop-e'wey-ete- 'hit (someone) in the face': initial s'oop- 'hit', trans. final -ete-

20 Medial suffixes III: Type of action

- a <u>-och-~-rch-</u> 'make sound' kwry-rch-e- 'whistle': initial kwry- 'whistle' 'wrrgry-rch-e- 'speak English': 'wrrgry- 'white person'
- b <u>-ohs- 'contact force'</u> sit-ohs-o- 'chip into small pieces': initial sit- 'chipped'
- c <u>-oks- 'think'</u> kaam-oks-ime- 'dislike': initial kaam- 'bad', final -ime- 'animate object'
- d <u>-ol- 'fly'</u> *l-ol-e-* 'fly': default initial *llaay-ol-e-* 'fly past': initial *laay-* 'alongside, past' weno'om-ol-e- 'fly in a particular place': initial weno'om- 'in a particular place'
- e <u>-o'r- 'run'</u> *him-o'r-epe-* 'run quickly': initial *him-* 'fast', final -epe- 'self-oriented activity' *raay-o'r-epe-* 'run past': initial *raay-* 'along, past', final -epe- 'self-oriented activity'
- f <u>-oot- 'induced motion'</u> kwomhl-oot-e- 'throw back': initial kwomhl- 'back' l-oot-e- 'throw': default initial l-

21 Final suffixes I: Valence-changing

a <u>-ete-</u> 'transitive/causative'

chiwey-ete- 'crave': cf. chiwey-e- 'be hungry' kaam-ew-ete- 'dislike: something's taste': cf. kaam-ew-e- 'taste bad' myooley-ete- 'shove, stick: something': cf. myooleye- 'be fixed in the ground' skuuw-ete- 'like: something's taste': cf. skuuw-e- 'taste good' tek-un-ete- 'stick: things together': cf. tek-un-e 'be stuck together' tk-ohp-ete- 'thicken: something liquid': cf. tk-ohp-e- 'be thick' (of liquid) b <u>-ine- 'causative'</u>

k'nrrk-ine- 'let: something wilt': cf. *k'nrrk-r-* 'wilt' *l-ohp-ine-* 'scrape out': cf. *l-ohp-e-* 'molt, come in lumps' *s'rrk-ine-* 'pull (something) apart': cf. *s'rrk-r-* 'come apart'

c <u>-ume- '+ animate object'</u> kwry-ume- 'whistle at (someone)': cf. kwyr-rwr- 'whistle' spry-ume- 'blow a whistle at (someone)': cf. spry-rr- 'blow a whistle' telog-ume- 'be in pain, resent (someone)': cf. telog-e- 'be ill' 'rp-ry-ume- 'tell (someone)': cf. 'rp-r- 'tell (something)'

22 Final suffixes II: Aktionsart and related meanings

- a <u>-epe- 'self-oriented activity'</u> chwink-epe- 'speak': initial chwink- 'speak' him-o'r-epe- 'run quickly': initial him- 'fast', medial -o'r- 'run' skuy-k-epe- 'get dressed': initial skuy- 'good', suffix -(e)k- 'do, treat'
- b <u>-emoye-</u> 'be (covered with), have the appearance of' chaalk-emoye- 'be sandy': chaalk- 'sand' kwer-uhl-emoye- 'have a pointed snout': initial kwer- 'sharp', medial -uhl- 'nose' hlkoolonk-emoye- 'be muddy': hlkoolonk- 'mud'
- c <u>-owo-</u> 'be or act in a certain way' chpur-owo- 'menstruate': initial chpur- 'careful' hlmey-owo- 'be mean': initial hlmey- 'mean' kaam-un-owo- 'grow badly': initial kaam- 'bad', medial -un- 'grow' son-owo- 'be a certain way': initial son- 'thus'

3.3 Initial-medial coverbs + 'light' finals

- 23 Two kinds of verbal formation in Yurok:
 - a Inflected verb = initial (+ one or more optional medials) + final + inflection
 - b 'Noninflected verb' (VN) = initial (+ medial) only; no final, no inflection

The term 'noninflected verb' is due to Robins (1958), the analysis to Garrett (2004).

c Inflected verbs thus consist of VN + final + inflection.

24	Noninflected verb	<u>Related inflecting stem</u>
	A final C loss process applies in VNs.	Final suffixes are in boldface .
a	<i>son</i> 'be a certain way' <i>cheyk-e'r</i> 'be small' (trees, etc.) <i>pus-oo'm</i> 'smell of musk'	son- owo - 'id.' cheyk-e'r- ono - 'id.' pusoo'm- ele - 'id.'
b	/komch/ → <i>kom</i> 'know' /hlky-orkw-/ → <i>hlkyor</i> 'look at'	<i>komch-ume-</i> 'id.' <i>hlkyorkw-e- 'id.'</i>
с	<i>srm</i> 'be beaten, killed' <i>mewp-ew</i> 'be strangled' <i>s'oop-e'wey</i> 'be hit in the mouth'	<pre>srm-rtr- 'beat, kill' mewpew-ete- 'strangle' s'oope'wey-ete- 'hit (s.o.) in the face'</pre>
d	/mekw-ehlk/ → <i>mekwehl</i> 'be in a heap" /men-ehlk/ → <i>menehl</i> 'go out' (of a fire)	<i>mekwehlk-ene-</i> 'pile (s.t.) up' <i>menehlk-ene-</i> 'extinguish (a fire)'

25 a Inflectional endings mark mood (indicative vs. subjunctive vs. imperative vs. attributive) and person-number agreement. VNs are thus devoid of marking for modality.

- b In narrative texts (the only genre analyzed), VNs are used in two contexts not unexpected for a modally unmarked category: (1) contexts where modality is supplied from context, i.e. close coordination with inflected verbs or in their scope; and (2) non-assertive (i.e. presuppositional or backgrounded) contexts.
- 26 Claims
 - a Diachronically, Yurok inflected verbs < two separate words: VN + inflected 'light' final.
 - b This is generally the origin of Algonquian tripartite stem morphology as well.
 - c Yurok VN (coverb) + inflected final patterns echo patterns of Udi (Harris 2006), northern Australian languages such as Jaminjung (Schultze-Berndt 2000), or Papuan languages such as Kalam (Pawley 2006). In some of those cases also there is comparable univerbation; this is the emergence of formal complexity.

3.4 Northwest Algic

- 27 A Proto-Algic with a northern-Australian-style coverb + inflecting verb system would not be out of place in the area between Chinookan and Kootenai in the northwest U.S. c. 3000-4000 years ago, or whenever Proto-Algic was spoken. Kootenai has very similar constructions and so too, with many fewer known inflecting verbs, does Chinookan. And these patterns do run in areas (Harris 2006, Schulze-Berndt 2000, et al.).
- 28 Representative Wishram (Chinookan) 'verbal particles' (Dyk 1933: 124-130)

a <u>Transitive particles</u>

b

'to do thus and thus, so and so' iwi juk' 'to loosen, to slack' iak' 'to hollow out' wiſ 'to rebuke, to scold' wax 'to spill' 'to kiss' uťs 'to injure incurably' alas bak bak 'to brush off' tłakj 'to uncover' k^j'ilu 'to glance at' Intransitive particles

ax	'to cough up'
bak	'to part from, to turn off'
p'ala	'to halt'
ťuk	'to drip'
t'łuja	'to be angry'
t∫ax	'to step along, take steps'
k ^j 'um	'to be sleeping'
k'au	'to belch'

- c wí∫ n-i-u-x-t scold 1SG:ERG-3SG:MASC:ABS-TRANS-do-t 'I'm scolding him.'
- d k^j'ílu t∫-Ø-u-**x**-t **glance.at** 3SG:MASC:ERG-3SG:FEM:ABS-TRANSL-**do**-t 'He is glancing at her.'
- e k''um i-kiax be.sleeping 3SG:MASC:ABS-do:INTR 'He is sleepy.'

4 Radical complexity

4.1 Numic postural verbs > secondary verbs

29 a Northern Paiute postural verbs (Thornes 2003: 316, 419)

	SIT STAND LIE	SINGULAR katy wyny hapy	DUAL jygwi wami kwapi	PLURAL aata'a kono pokwa ~ wakwapi
b	bird	wynydy-gwe tree-INESS sitting in the	katy. sit:SG tree.'	(Mono Lake Paiute: BP04-3-s, elicitation)
0	Mogo'ni	www.hu		

c Mogo'ni **wyny**-hu woman **stand:S**G-MOM 'The woman stood up.'

(Mono Lake Paiute: BP05-1-s, elicitation)

30 The same (or very similar) forms can also be used as verbal suffixes: secondary verbs.

a	Shoshoni (Miller 1996)		Northern Paiute (Thornes 2003: 418)	
	-katy 'in an upright position'		-katy 'sit, remain'	
	<i>-wyny</i> 'in a vertical position'		<i>-wyny</i> 'continuous' (sing.)	
	<i>-hapi</i> 'in a prone position'		<i>-tapi</i> 'keep V-ing'	

c It is widely accepted that Uto-Aztecan suffixes with aspectual and directional meanings have evolved from secondary verbs of this general kind (Crapo 1970).

4.2 Problems in diachronic analysis

31 Northern Paiute verb-verb compounds (Thornes 2003: 348-349)

a	watsi-mia	b	watsi-tiuna	с	sami-tyky
	hide-go:SG		hide-put:PL		soak-put:SG
	'sneak off'		'put things away'		'soak' (tr.)

- d Mysu-passa-wyny.
 be.able-dry-CONT:SG
 'It dries readily.' (Nepa Kennedy, 'Chokecherries', 1999 [Thornes 2003: 526])
- e Su nady'ja **tabya-'puni**-su ka na-**matsi-kwyny-puni**-na. NOM tough **appear-see**-ADV OBL MM-**slant-stand-see**-PTCP 'It was pretty rugged-looking, and steep.'

(Nepa Kennedy, 'Chokecherries', 1999 [Thornes 2003: 521])

- 32 Differences between V-V compounding and secondary verb suffixation
 - a 'Compound verbs tend to be right-headed, with the first member of the compound often interpretable as adding a manner feature to the complex. In secondary verb constructions, on the other hand, the core lexical verb appears first, and the secondary verb adds postural or associated motion to the complex.' (Thornes 2003: 348)
 - b V-V compounds are followed by the applicative-causative suffix -ky but secondary verbs are preceded by -ky (and followed by other inflectional suffixes).
 - c Therefore V-V compounding cannot be the source of new secondary verbs. But secondary verb formation is not productive: you cannot freely move new items into the relevant position. On the other hand, the secondary verb dossier is not uniform across Numic; new verbs have been inducted into the class.

- 33 Two problems follow.
 - a Formal complexity: what, exactly, is the synchronic process by which a non-secondary verb is induced to reposition itself in the secondary verb position within the verbal suffix template?
 - b Functional complexity: once a secondary verb is formally in place, how exactly does it acquire its aspectual and directional meanings?
- 34 Shibatani's paradox (Shibatani 2006) in Mono Lake Paiute, en route from postural meanings in Shoshoni's to grammaticalized meanings in Northern Paiute
 - a Salient postural interpretations if contextually plausible
 - Ny saa-wyny. i 1SG cook-stand:SG 'I'm cooking standing up.' (Mono Lake Paiute: elicitation) Tammi jaga-katy. ii cry-sit:SG we 'We are sitting here crying.' (Mono Lake Paiute: BP05-2-s, elicitation) Aspectual interpretations otherwise b i Ymy jaga-mia-wyny. 3PL cry-go:SG-CONT:SG 'They are walking along crying.' (Mono Lake Paiute: BP05-2-s, elicitation) Ny tykaa-**wyny**. ii 1SG eat-CONT:SG 'I'm eating right now.' (Mono Lake Paiute: elicitation) iii Pauma-wyny. rain-CONT:SG 'It's raining. (Mono Lake Paiute: BP02-2-2-s, elicitation) iv Tyysy-wyny cold-CONT:SG 'It's freezing.' (Mono Lake Paiute: BP02-2-2-s, elicitation)

References

- Blevins, Juliette. 2005. Yurok verb classes. International Journal of American Linguistics 71: 327-349.
- Bowern, Claire. 2006. Inter-theoretical approaches to complex verb constructions: Position paper. Department of Linguistics, Rice University.
- Crapo, Richley H. 1970. The origins of directional adverbs in Uto-Aztecan. International Journal of American Linguistics 36: 181-189.
- DeLancey, Scott. 1996. Penutian in the bipartite stem belt: Disentangling areal and genetic correspondences. *Proceedings of the Twenty-Second Annual Meeting of the Berkeley Linguistics Society: Special Session on Historical Topics in Native American Languages*, pp. 37-54. Berkeley: Berkeley Linguistics Society.
- Dyk, Walter. 1933. A grammar of Wishram. Ph.D. dissertation, Yale University.
- Garrett, Andrew. 2004. The evolution of Algic verbal stem structure: New evidence from Yurok. Proceedings of the Thirtieth Annual Meeting of the Berkeley Linguistics Society, February 13-16, 2004: Special Session on the Morphology of Native American Languages, ed. by Marc Ettlinger, Nicholas Fleisher, and Mischa Park-Doob, pp. 46-60. Berkeley: Berkeley Linguistics Society.
- Garrett, Andrew; Juliette Blevins; and Lisa Conathan. 2005. *Preliminary Yurok dictionary*. Yurok Language Project, Department of Linguistics, University of California, Berkeley.
- Garrett, Andrew. To appear. Syntactic change as language change. Proceedings of the Eighth Diachronic Generative Syntax Workshop, ed. by Steven Anderson and Dianne Jonas.
- Harris, Alice. 2006. Light verbs as classifiers in Udi. Paper presented yesterday.
- Meillet, Antoine. 1905-1906. Comment les mots changent de sens. L'Année sociologique 10 [reprinted in Antoine Meillet, Linguistique historique et linguistique générale (Paris: É. Champion, 1921), vol. 2, 230-271].
- Miller, Wick R. 1996. Sketch of Shoshone, a Uto-Aztecan language. *Handbook of North American Indians*, vol. 17, *Languages*, ed. by Ives Goddard, pp. 693-720. Washington, D.C.: Smithsonian Institution.
- Nichols, Michael J. P. 1974. Northern Paiute historical grammar. Ph.D. dissertation, University of California, Berkeley.
- Pawley, Andrew. 2006. Where have all the verbs gone? Remarks on the organisation of languages with small, closed verb classes. Paper presented today.
- Robins, R. H. 1958. *The Yurok language: Grammar, texts, lexicon.* (University of California Publications in Linguistics, 15.) Berkeley: University of California Press.
- Schultze-Berndt, Eva. 2000. Simple and complex verbs in Jaminjung: A study of event categorisation in an Australian language. Doctoral dissertation, Katholieke Universiteit Nijmegen.
- Shibatani, Masayoshi. 2006. Grammaticalization of complex predicates. Paper presented today.
- Stern, Gustaf. 1931. Meaning and change of meaning with special reference to the English language. (Göteborgs Högskolas Årsskrift 38, 1932: 1.) Göteborg: Elanders Boktryckeri Aktiebolag.
- Thornes, Timothy Jon. 2003. A Northern Paiute grammar with texts. Ph.D. dissertation, University of Oregon.

Department of Linguistics University of California 1203 Dwinelle Hall #2650 Berkeley, CA 94720-2650

garrett@berkeley.edu http://socrates.berkeley.edu/~garrett/