

Phonological Theory and Field Work: Is the Gap Widening?

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Phonological theory and fieldwork maintain a symbiotic relationship that has enriched both during their histories.... The purpose of this special session is to consider ways in which both phonological theory and field research can continue and strengthen this important symbiosis in the 21st century, an era of improved speech analysis technology, easier travel, greater and more empowered participation from native speakers in field research, and a wider range of theoretical models based on an ever-widening range of languages. [from announcement of MFM Special Session]

(1) The relation between phonological theory and field work: what has it been, can it be, should it be?

(2) Field work vs. theory: symbiosis or delicate balancing act?

"...it is vital within linguistics to achieve a proper balance between the goals of accurate description of particular languages and of trying to discover linguistic universals. Any linguist who has spent long periods working on unwritten languages is bound to develop a 'loyalty' to that language and to its speakers, even while at the same time wishing to remain fully committed to the universalist aims of the discipline. The proposed volume really looks as if it will have a lot to say about this duality of interests that always seems to emerge when one is engaged in fieldwork.

"I think too that the proposers seem too to have sensed correctly that there is a current trend among linguists towards a more language-oriented linguistics.... a concern for endangered languages and for paying due attention to the potential contribution of exotic languages has certainly returned to a prominent place over the past years." [from 3/25/98 book proposal review of P. Newman & M. Ratliff (eds), *Field Linguistics*, CUP: 2001]

(3) Logically prior questions

Papers in the session will also address the logically prior crucial question: what is phonological field research?

- a. what counts as (phonological) "field work"?
- b. what counts as (phonological) "theory"?

(4) If you do not enjoy this talk, you also will not like...

- a. "Why describe African languages?" In A. Akinlabi & O. Adesola (eds.) *Proceedings of the 4th World Congress of African Linguistics*, 21-42. Cologne: Rüdiger Köppe Verlag (2003).
[asked to address the conference theme: *The description of African languages in a rapidly changing field*]
- b. "African languages and phonological theory". *GLOT International* Vol. 7, No. 6, 153-163 (2003).
[assignment was to "discuss what and how a particular language has contributed to linguistic theory and what and how linguistic theories have helped in further understanding a particular language"]
- c. "Field work as a state of mind". In Paul Newman & Martha Ratliff (eds), *Linguistic fieldwork*, 15-33. Cambridge University Press (2001).
["This book is intended to serve two main purposes: (a) to convey the intellectual excitement of linguistic fieldwork; and (b) to give a realistic picture of the complex and involved business of describing language as it is used by actual speakers in natural settings." (Newman & Ratliff 2001:1)]

(5) Goals of this talk

- a. address the two questions in (3)
- b. assess the "symbiosis" of phonological theory and field work: what can each do for the other?

(6) Prototype of linguistic field work (Hyman 2001:21)

	Fieldwork prototype	Fieldwork countertype	Least field-work-like
ELICITEE	Other	Self	Introspection
ELICITOR/OBSERVER	Self	Other	Secondary data
DISTANCE	Far	Near	One's domicile
SETTING	Small	Large	City, university
DURATION	Long	Short	Brief stopover
LANGUAGE	Exotic	Well-known	One's own
SUBJECT MATTER	A language used in its natural / cultural context	Language in general as a formal system	Abstract syntax
DATA	Naturalistic	Controlled	Synthetic speech
MOTIVATION	Languages-driven	Theory-driven	Mathematical linguistics

(7) Questions pertaining to phonological fieldwork

- a. what counts as phonological fieldwork?
 - i. observation, elicitation, recording among the community where a language is spoken
 - ii. other
- b. what are the goals of phonological fieldwork? (NB. One can't know in advance what one will find.)
 - i. description of sound systems (= primary)
 - ii. other

- c. why is it important to do phonological fieldwork?
 - i. to document and understand what is out there
 - ii. other
- d. who should do it (and with what training)?
 - i. field phonologists
 - ii. others?

(8) Questions pertaining to phonological theory

- a. what counts as phonological theory?
 - i. formal modeling
 - ii. other
- b. what are the goals of phonological theory?
 - i. to determine universal properties of sound systems (what is a possible phonology?)
 - ii. other
- c. why is it important to do phonological theory?
 - i. to document and understand what is general (Language) vs. specific (languages)
 - ii. other
- d. who should do it (and with what training)?
 - i. theoretical phonologists
 - ii. others?

(9) From an email exchange of phonologists re what constitutes a “theoretical contribution”?

- a. “The shared belief of many in the field appears to be that a paper making a theoretical contribution must (a) propose some new mechanism, which adds to or replaces part of some current theory, or (b) contradict some current theory. Papers that do neither, or those that do either but in a relatively minor way, are not looked at as making a theoretical contribution.”
- b. “I’d like to offer an amendment to [the above] view. A paper that contains a nontrivial analysis of novel data, where the analysis relies crucially on contemporary theoretical ideas, is important support for those ideas. Often the originator of the theory only knew of a few relevant cases, so the data that were originally used to support the theory might be rather thin. So, I’d be quite happy...[with] articles that can honestly say, ‘hooray, the theory works...’.”
Example: Kenstowicz & Kidida (1987) on the OCP and Tangale tone

(10) Would the following results/claims from the field be considered “theoretical”?

- a. Arrente has only VC syllables, e.g. *at w.ér.em* ‘is fighting’ (Breen & Pensalfini 1999)
- b. Bella Coola has words with no syllables, e.g. *c’ktsk^wc* ‘he arrived’ (Bagemihl 1991)
- c. Gokana has no syllables, *méé è kō nīm kēéééééé* ‘who_i said I woke him_i up?’ (Hyman 1985)

(11) Concerning the relation of phonological theory to typology and description

- a. There is no clear division between phonological typology and phonological theory. Given their shared concern with the nature of phonological systems, one can’t do insightful typology without addressing the same analytical issues that confront phonological theory. Throughout the history of phonology, the two have been inseparable both in principle and in practice.
- b. “description and theory are very hard to disentangle” (Hyman 2003)
- c. “One of the most compelling features of OT, in my view, is the way that it unites description of individual languages with explanation of language typology.” (McCarthy 2002:1)
- d. a perhaps useful distinction to make is between “general linguistics” vs. language-specific goals (10a-c) are theoretical in the sense that the researchers in question are attempting to determine how their language-specific findings fit into the scheme of Language in general.

(12) Prince (2006:30) takes issue with (9a) and (11b) and distinguishes “heuristically” between two kinds of theories standing at the two ends of a scale

- a. “‘Theories of Data’ (TOD), which produce analyses when set to work on collections of facts”
- b. “‘Free Standing Theories’ (FST), which are sufficiently endowed with structure that many predictions and properties can be determined from examination of the theory alone.”
- c. “In the present context, where a theory is taken to be an object in grave need of explanation and analysis, it should be clear that an authentic ‘theoretical contribution’ can involve deepening the understanding of a theory’s consequences or of the proper methods of using it, without a hint of replacement or contradiction.” (Prince 2006:42)

(13) General linguistics vs. theory vs. The Theory

“As for your interest in ‘efforts to record and preserve dying languages’: this is not what the field is about - at least not at the leading programs in theoretical linguistics. One can organize one’s research around such a language or languages (some of our students have done or are doing that), but the main goal of the programs

- (32) The more marked a tone is...
- the more likely it is to be absent in a tone system
 - the more likely it is to be restricted to a hospitable TBU (e.g. long, prominent, sonorous)
- (33) Proposed hierarchies concerning hospitable tone-bearing units (TBUs)
- rime types: CVV >> CVR >> (CVO) >> CV
 - # of syllables: monosyllabic >> bisyllabic >> polysyllabic
 - metrical prominence: stressed >> unstressed
 - domain position: final >> non-final

(34) Phonetic determinism (e.g. “phonetic OT”) (C_{CONTOUR} = “contour tone bearing ability of the syllable”)

“...the phonetic studies documented in this chapter... support the direct approach to contour tone distribution... the speaker not only has to identify positions that specifically benefit C_{CONTOUR}, but also has to keep track of the language-specific magnitude of the C_{CONTOUR} advantage induced by these positions.... positional prominence is not only contrast-specific, but also tuned to language-specific phonetics” (Zhang 2001:176)

i.e. measure the (sonorant) rime duration, and you’ll get the right contour tones in the right places

- (35) Why do many languages restrict contour tones to final syllables (e.g. phrase-final, pre-pause)
- Zhang: duration (pre-final rimes are shorter than final rimes)
 - Hyman: co-articulation (contour tones may place restrictions on surrounding tones)

- (36) Which is it? (Answer: BOTH prefinal shortening and decontouring of a pre-tonal tone are needed.)
- *H̄L before another TBU
 - *H̄L before another tone (= my view)
- $$\begin{array}{c} * \sigma \quad \sigma \\ / \backslash \\ H \quad L \end{array} \qquad \begin{array}{c} * \sigma \\ / \backslash \\ H \quad L \quad / _ _ T \end{array}$$

- (37) The relative markedness of contours should be evaluated in *tonal* context
- contour tones care about whether they are followed/preceded by another tone
 - contour tones care about WHICH tones they are followed/preceded by
 - contour tones should be related to the relative markedness of tonal sequences in general, e.g. L-H is more marked than H-L

(38) Comparative study of floating tones in Eastern Grassfields Bantu (Hyman & Tadadjeu 1976:66)
(L° = level L tone; (L), (H) = floating tones; ≠ stem boundary)

Dialect ↓ / PEG →	*L≠L-L	*L≠L-H	*L≠H-L	*L≠H-H	e.g. *li-sòŋá ‘tooth’
Mankon	L≠L-L	L≠L-H	L≠H-L	L≠L-H	nĩ-sòŋá
Mundum I	L≠L-L	L≠L-H	L≠H-L	L≠L-H	nĩ-sòŋá
Nkwen	L≠L-L	L≠L-L°	L≠H-L	L≠L-H	nĩ-sòŋà°
Pinyin	L≠L-L	L≠L-L°	L≠H-L	L≠L-H ?	nĩ-sòŋà°
Mbui	L≠L	L≠L°	L≠H (L)	L≠H	nì-sòŋ
Bamenyan	L≠L	L≠L̄H	L≠H̄L	L≠H	☞ nà-sũo
Babadjou	L≠L	L≠L°	L≠H̄L	L≠L̄H	là-sòŋ°
Babete	L≠L	L≠L°	L≠H	L≠H	nà-sòŋ°
Bati	L	L	H	H	sìŋ
Bagam	L	L°	H	H	sòŋ°
Batcham	L≠L	L≠L°	L≠H	L≠L̄H	là-sòŋ°
Dschang/Ngwe	L≠L	L≠L°	L≠ [↓] H	L≠H	lì-sòŋ°
Baloum	L≠L	L≠L°	L≠H (L)	L≠L̄H ?	nà-sò°
Fomopea	L≠L	L≠L°	L≠H (L) ?	L≠H	è-sòŋ°
Bamendjou	L≠L	L≠L°	L≠ [↓] H	L≠H	nà-sòŋ°
Baleng	(L) L	(L) L°	(L) H	(L) H	nà-šũ°
Bandjoun	L	L°	L̄H	H	sùŋ°
Batie	(L) L	(L) L°	(L) H	(L) H	è-sò°
Bangou	L	L (H)	M	H	sòŋ
Batoufam	L	L (H)	M ?	H	sùək
Fotouni	(L) L	(L) L°	(L) H	(L) H	è-sò°
Fondjomekwet	L	L (H)	H	H	sòŋ
Fe?fe?	L	L°	L̄M	M	sè?
Bangangte	L	L°	H (L)	H	sò°
Bamoun	L	L	H	H	sù

b. hláang + làam → hláang lâam 'mountain dance' (=HTS)
 /H/ /L/ H HL

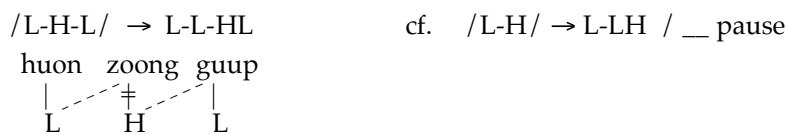
(47) LTS and HTS expressed in autosegmental terms

a. hùon zǒong b. hláang lâam


(48) Realization of /L/ + /H/ + another tone— no change in (48b,c)

a. hùon + zǒong + gùup → hùon zǒong gùup 'six garden monkeys'
 L H L L HL (< LTS + HTS)
 b. hùon + zǒong + gǐet → hùon zǒong gǐet 'eight garden monkeys'
 L H HL L H HL (no change)
 c. hùon + zǒong + thúm → hùon zǒong thúm 'three garden monkeys'
 L H H L H H (no change)

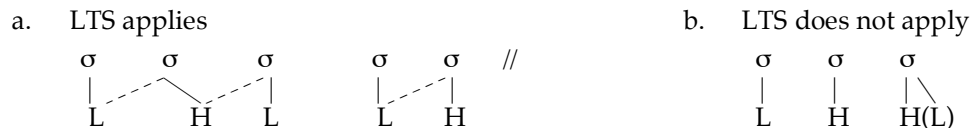
(49) Autosegmental representations of tone spreading + contour simplification in (48a)

/L-H-L/ → L-L-HL cf. /L-H/ → L-LH / __ pause


(50) Descriptive observations re LTS

a. (46a): LTS applies if the targeted /H/ is followed by pause: /L-H/ → [L-LH]
 b. (48a): LTS applies if the targeted /H/ is followed by /L/: /L-H-L/ → [L-L-HL]
 c. (48b,c): LTS doesn't apply if the targeted /H/ is followed by /H/ or /HL/ (48b,c)

(51) Major question: How to get LTS to apply only where it should? i.e. only before { L, // }

a. LTS applies b. LTS does not apply


(52) What do the contexts in (51a) have in common *vs.* the context in (51b)? Answer: If LTS were to apply in (51b), the input /H/ would not have a surface correspondent in the output:

a. input b. output (incorrect)


(53) Proposed constraint ranking: MAX(H) >> SPREAD(T) >> MAX(L)

(54) The relevant constraint has to do with MAX(H) >> SPREAD(L) rather than with recoverability

NB. The /H/ in (52b) is recoverable: if LTS were to apply to (52a), the L-L-H output in (52b) would unambiguously derive from /L-H-H/, since /L-L-H/ would be realized L-L-LH (L-L-L if followed by another syllable, since contours are only allowed on the final syllable)

PROBLEM: I don't know any other language where LTS has this property (cf. the second example of (43b) in Thlantlang, where LTS applies in the same context: /L-H-HL/ → L-L-HL

(55) Concluding questions and remarks concerning phonological theory and field work

a. If you are a field worker, what would you like from phonological theory? (Do we have the tools we need?)
 b. If you are a theoretical phonologist, what would you like from field work? (Have we seen enough data?)

(56) Phonological theory should provide the field worker with formal models which

a. express insights b. discover new insights
 solve problems identify new problems

"One distinguishing trait of generative phonology is a belief in the explanatory value of notational devices: in many cases, the invention of a good notation has revealed the simplicity behind systems that initially seemed

complex. A good formal device takes on a life of its own, revealing previously unseen connections and stimulating further inquiry.” (Hayes 1982:227)

(57) Field work should provide the theoretical phonologist with ANALYSES which are

- | | | | |
|----|---------------------------|----|-----------------------------------|
| a. | rigorous
comprehensive | b. | rich
insightful
interesting |
|----|---------------------------|----|-----------------------------------|

“...the most rewarding fieldwork experiences may come from discovering either the presence of new linguistic structures—or the absence of expected ones—that one’s ‘script’ would never have predicted... It is the creative tension between these two equally important imperatives—training, preparation, and planning on the one hand, and... intellectual openness and venturesomeness to see things with ‘new eyes’ on the other—which defines the fieldwork experience.” (Newman & Ratliff 2001:7)

(58) Phonological theory and field work are bound together by a shared concern for typology and analysis—research agendas differ, but cannot be objectively ranked

“...phonologists have tended to be preoccupied with achieving exhaustive descriptive coverage, even at considerable cost in explanation; conversely, their syntactic colleagues have pushed toward the goal of developing interesting explanations even at the expense of descriptive incompleteness. Consequently, it sometimes seems as if the debunking of a proposed principle in phonology is an accomplishment as much prized as positing one in syntax. Readers can decide for themselves which is more to be admired.” (McCarthy 2002:56)

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