

## Affix as a Comparative Concept

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1. Haspelmath (2011) argues
  - a. that there are problems with *morphosyntactic (grammatical) word* as a crosslinguistic category and as a comparative concept;
  - b. therefore, the notion of affix is problematic as a comparative concept;
  - c. therefore there are problems with typological claims that refer to affixes, such as the claim that there is a typological preference for suffixes over prefixes.
2. In various other contexts, Haspelmath has claimed that it is not clear how much the choices that authors of language descriptions make as to what is a separate word and what is an affix are based on anything linguistic.
3. The goal of this paper is twofold:
  - a. to show how the problems that Haspelmath discusses with the notion of morphosyntactic word do not present problems for the notion of affix;
  - b. to show that it is possible to provide evidence for the suffixing preference, despite questions about the reliability in language descriptions of what is represented as an affix and what is represented as a separate word

### A comparative concept *affix*

4. The usual notion of affix is one that is primarily phonological: an *affix* is a grammatical morpheme that is phonologically bound to a stem and that is selective for its host.
5. A grammatical morpheme is *phonologically bound* if it must occur in the same phonological word as some other morpheme.
6. (Informally) A *phonological word* is the domain of phonological rules. Where phonological rules differ in a language in terms of their domain, the larger domain will be considered the phonological word.
7. (More formally) A *phonological word* is a sequence of one or more morphemes, where all of the boundaries between morphemes within the sequence are word-internal by at least one phonological criterion and the sequence is bracketed by morpheme boundaries that are not word-internal by any phonological criteria.

### Phonologically indeterminate grammatical morphemes

8. Haspelmath: How reliable are the orthographic conventions in language descriptions as far as “word boundaries” are concerned?

9. Grammatical morphemes fall into three types
  - a. those that are phonologically bound (affixes and clitics)
  - b. those that are separate phonological words
  - c. those that are phonologically indeterminate
10. For any given phonological rule and any given morpheme boundary, it is most often the case that the phonological rule tells us nothing about the phonological status of that morpheme boundary
11.
  - a. Hypothetical rule: A phonological rule  $n \rightarrow m / \_ [+labial]$
  - b. Hypothetical case of a postposed grammatical morpheme *ar*
  - c. This rule tells us nothing about the phonological status of this grammatical morpheme
12. A grammatical morpheme is *phonologically indeterminate* if every phonological rule tells us nothing about the phonological status of that morpheme.
13. Phonologically indeterminate grammatical morphemes are probably common.
14. Orthographies allow only two possibilities:
  - a. word boundary
  - b. word-internal morpheme boundary
15. Grammatical descriptions have to represent phonologically indeterminate morphemes either as affixes or as separate words, with little or no linguistic justification.

### The suffixing preference for tense-aspect morphemes

18.	Africa	Euras	Oceania	N.Amer	S.Amer	TOTAL
TASuff	[50]	[57]	[95]	[51]	[69]	[322]
TAPref	21	3	26	14	3	67
Both	24	8	30	13	6	81

19. An *orthographic affix* is a grammatical morpheme that is represented in a grammatical description of a language as part of a word.
20. *Haspelmath's Hypothesis*: The orthographic suffixing preference is an artifact of people representing postposed grammatical morphemes as suffixes to a greater extent than the extent to which they represent preposed grammatical morphemes as prefixes.

### Phonologically weak grammatical morphemes

21. A grammatical morpheme is *phonologically weak* if it has one of the following two properties (first approximation):
  - a. it is nonsyllabic or it has one or more nonsyllabic allomorphs
  - b. it exhibits allomorphy that is at least partly phonologically conditioned

22. A grammatical morpheme that is not phonologically weak is *phonologically strong*.

23. Namia (Sepik; Papua New Guinea; Feldpausch and Feldpausch 1992: 37)

- a. Sande-ka **pa**-nir-e.  
 Sunday-of **PERF**-sit-NONFUT  
 ‘On Sunday, we stayed.’
- b. ema aura lomo-ma **p**-kra-e.  
 1PL.EXCL money 3SG-TOPIC **PERF**-put-NONFUT  
 ‘We put down the money.’

24. Campa Axininca (Arawakan; Peru; Payne 1981: 62)

- noñ**-č<sup>h</sup>iki ‘I will cut’  
**noŋ**-kimi ‘I will hear’  
**nom**-pisiti ‘I will sweep’  
**no**-siriki ‘I will tie’  
**n**-asiti ‘I will cover’

25. Grammatical descriptions rarely represent phonological weak morphemes as separate words

26. Koya (Dravidian; India; Tyler 1969: 83)

Past *-t-*

tung- <b>t</b> -āna	‘I did’	tung- <b>t</b> -ōṇḍu	‘he did’
tung- <b>t</b> -āda	‘we (excl) did’	tung- <b>t</b> -e	‘she/it did’
tung- <b>t</b> -āma	‘we (incl) did’	tung- <b>t</b> -ōru	‘they (masc) did’
tung- <b>t</b> -īni	‘you (sg) did’	tung- <b>t</b> -āku	‘they (fem/neut) did’
tung- <b>t</b> -īri	‘you (pl) did’		

27. An analysis of Koya that treats the past tense morpheme as forming word with the subject morpheme:

tung <b>t</b> -āna	‘I did’	tung <b>t</b> -ōṇḍu	‘he did’
tung <b>t</b> -āda	‘we (excl) did’	tung <b>t</b> -e	‘she/it did’
tung <b>t</b> -āma	‘we (incl) did’	tung <b>t</b> -ōru	‘they (masc) did’
tung <b>t</b> -īni	‘you (sg) did’	tung <b>t</b> -āku	‘they (fem/neut) did’
tung <b>t</b> -īri	‘you (pl) did’		

28. A grammatical morpheme is *phonologically weak* if it has one of the following two properties (second approximation):

- a. it is nonsyllabic or it has one or more nonsyllabic allomorphs, *unless it could be syllabified by connecting it to other grammatical morphemes*
- b. it exhibits allomorphy that is at least partly phonologically conditioned

## 29. Remo (Munda; India; Fernandez 1969: 25)

nonpast imperfective = *-t ~ -tə ~ -to ~ -te*

1SG	ǰu-t-iŋ	‘I see’	2SG	ǰu-to-no	‘you (sg) see’
1DU	ǰu-tə-naŋ	‘we (du) see’	2DU	ǰu-tə-pa	‘you (du) see’
1PL	ǰu-tə-nay	‘we (pl) see’	2PL	ǰu-te-pe	‘you (pl) see’
			3	ǰu-to	‘he/she/it/they see(s)’

## 30. An analysis of Remo that treats the nonpast perfective morpheme as belonging to a separate word

1SG	ǰu t-iŋ	‘I see’	2SG	ǰu to-no	‘you (sg) see’
1DU	ǰu tə-naŋ	‘we (du) see’	2DU	ǰu tə-pa	‘you (du) see’
1PL	ǰu tə-nay	‘we (pl) see’	2PL	ǰu te-pe	‘you (pl) see’
			3	ǰu to	‘he/she/it/they see(s)’

31. A grammatical morpheme is *phonologically weak* if it has one of the following two properties (third approximation):

- a. it is nonsyllabic or it has one or more nonsyllabic allomorphs, unless it could be syllabified by connecting it to another grammatical morpheme
- b. it exhibits allomorphy that is at least partly phonologically conditioned (*unless the allomorphy is conditioned by other grammatical morphemes*)

## 32. Nandi (Nilotic; Kenya; Creider and Creider 1989:76-77)

- a. á-kas  
1SG-hear  
‘I hear (simple nonpast, perfective)’
- b. á-kás-e  
1SG-hear-IMPERF  
‘I hear (simple nonpast, imperfective)’

33. A grammatical morpheme is *phonologically weak* if it has one of the following two properties (fourth approximation):

- a. it is nonsyllabic or it has one or more nonsyllabic allomorphs, unless it could be syllabified by connecting it to another grammatical morpheme
- b. it exhibits allomorphy that is at least partly phonologically conditioned (unless the allomorphy is conditioned by other grammatical morphemes) *or it triggers phonologically conditioned allomorphy in a stem*

## 34. If Haspelmath’s Hypothesis is true, then the bias towards treating postposed grammatical morphemes as suffixes more often than treating preposed grammatical morphemes as prefixes must be primarily due to grammatical morphemes that are phonologically strong.

35. Haspelmath's Hypothesis predicts that if we compare the relative frequency of phonologically weak orthographic suffixes and prefixes and the relative frequency of phonologically strong orthographic suffixes and prefixes, we should not find a significant difference in the relative frequency of phonologically weak orthographic suffixes and prefixes, but only in the relative frequency of phonologically strong orthographic suffixes and prefixes.

### Testing the suffixing preference for phonologically weak tense-aspect orthographic affixes

38. An examination of tense-aspect orthographic affixes in a sample of 517 languages
39. I classified a language as having phonologically weak tense/aspect orthographic suffixes if I found evidence of at least one such orthographic suffix in the language. If I found no evidence of this, I classified the language as lacking evidence of having such.
40. I did the same for tense/aspect orthographic prefixes.
41. Many languages I examined I excluded for one of the following two reasons:
- The description of the morphology was too complex for me to easily classify the language.
  - There were clear cases of allomorphy, but it wasn't clear if the conditioning factors were phonological.
42. a. Type 1 TASuff Languages: Languages where at least one orthographic tense-aspect suffix is phonologically weak.
- b. Type 2 TASuff Languages: Languages where there are orthographic tense-aspect suffixes but I found no evidence that any of them is phonologically weak.

43. a.

	Africa	Euras	Oceania	N.Amer	S.Amer	TOTAL
Type 1 TASuff	[34]	[31]	[35]	[24]	[18]	142
Type 1 TAPref	20	5	17	10	5	57

- b. Ratio of the total number of genera containing Type 1 TASuff languages to the total number of genera containing Type 1 TAPref languages: 142 to 57 or **2.49 to 1**.

44. a.

	Africa	Euras	Oceania	N.Amer	S.Amer	TOTAL
Type 2 TASuff	[38]	[31]	[51]	[23]	[39]	182
Type 2 TAPref	23	4	21	9	3	60

- b. Ratio of the total number of genera containing Type 2 TASuff languages to the total number of genera containing Type 2 TAPref languages: 182 to 60 or **3.03 to 1**.

### Reference

- Haspelmath, Martin. 2011. The indeterminacy of word segmentation and the nature of morphology and syntax. *Folia Linguistica* 54: 31-80.h