

Non-synthetic synthetic compounds in Niuean^{*}

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SUMMARY

Synthetic compounds such as *truck-driver* typically involve suffixes, and are, within Distributed Morphology, derived through incorporation via head movement. We consider synthetic compounds in Niuean, a language arguably without head movement or category-defining suffixes. To account for the Niuean compounds, we start with an analysis of Harley (2009). For theoretical and empirical reasons, we propose a modification to the analysis, which posits the head of the compound to be distinct from the categorizing *n*, and which involves lexical recategorization from *vP* to *nP*. We close with some brief comments about the nature of words within syntax and morphology (cf. Piggott & Travis 2013, 2017).

RÉSUMÉ

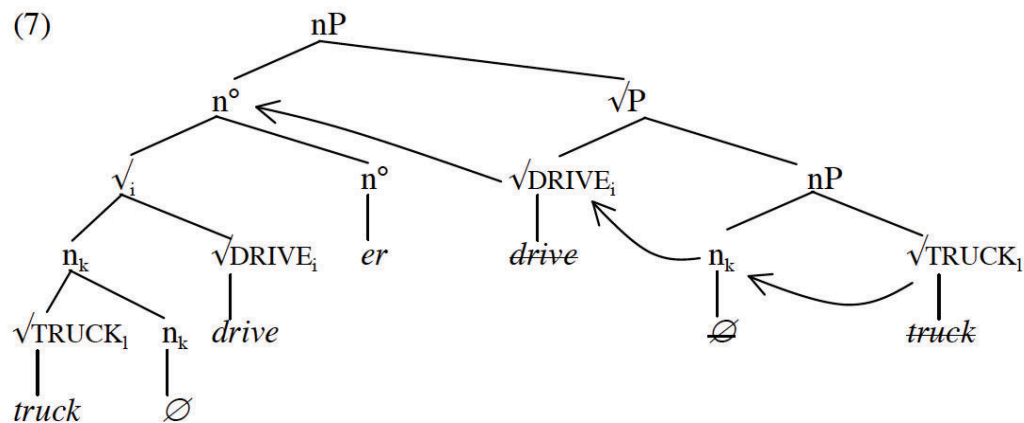
Les mots composés, comme *truck-driver* en anglais, impliquent typiquement des suffixes, et sont dus, dans le cadre de la Morphologie distribuée, à l'incorporation via le mouvement de tête. Nous étudions les mots composés en niuéen, une langue de toute évidence sans mouvement de tête ni suffixes de catégorie. Afin d'expliquer les mots composés niuéens, nous commençons par une analyse de Harley (2009). Pour des raisons théoriques et empiriques, nous proposons une modification à cette analyse, qui avance que la tête du mot composé est distincte du *n* classificateur, et qui implique un reclassement lexical du SP vers le SN. Nous clôturons cet article par de brefs commentaires sur la nature des mots dans la syntaxe et dans la morphologie (cf. Piggott & Travis 2013, 2017).

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1 BACKGROUND

Synthetic compounds such as *truck-driver* and *meat-eater* have been widely discussed in the literature on morphology (e.g. Bauer 2017, Fabb 1984, Gaeta 2010, Harley 2009, Lieber 1983, Roeper & Siegel 1978, Selkirk 1982, Spencer 1991). Characteristically in such compounds, one component is a verb root (e.g. *driv-*), and the relation between this verb root and the first member of the compound is a thematic one, with the first member serving as the internal argument of the verb root. The compound as a whole refers to the agent of the verb root, a fact that is attributed to the nominalizing *-er* suffix. Harley (2009) proposes that synthetic compounds such as those above can be analyzed as in (1) (also numbered as Harley's (7)).

(1)



There are two key points to note here. The first key point is that the derivation involves successive incorporation or head movement (Travis 1984), which in Harley's analysis is the main engine of compound formation. There are three instances of head movement here: first, *truck* moves to left-adjoin to its categorizing *n*, then the new head *truck n* moves up to left-adjoin to *drive* and finally this new head, *truck n drive*, moves up to left-adjoin to *-er*, forming *truck-driver*. The second key point is that the derivation is topped with a categorizing *n*, namely *-er*. According to Harley, *-er* is agent-flavoured, causing the entire compound to be interpreted as the agent of the verb. Each of these points illustrate ways in which the compounds are synthetic—they involve incorporation, and they involve an affix. Notably, for Harley, synthetic compounds have the same structure as root compounds, as we can replace *truck* with *nurse*, and *drive* with *shoe*, and *-er* with a null nominalizer, to derive the root compound *nurse shoe* via the same mechanisms.

The question arises how such compounds might be expressed in an isolating language, one in which neither incorporation nor category-defining derivational affixes are generally available. Drawing data from Niuean, a Polynesian language with isolating morphology, we propose an account for Niuean 'synthetic' compounds, without incorporation and affixation.¹ For theoretical

¹ There are a few derivational affixes in Niuean, but their status is unclear, and none have this function (Sperlich 1997). Lack of incorporation or head movement is evidenced through the existence of pseudo-incorporation and of predicate fronting vs. verbal head movement (Massam 2000, 2001). We note that isolating languages are not all alike in these ways, see Chen (2017) on Chinese.

reasons, we propose a modification to the analysis in (1), which then allows us to account for non-agentive compounds as well. We conclude with brief remarks about the implications of our analysis.

A range of Niuean equivalents to synthetic compounds are given in (2). Note there is no inverse order (which is the result of incorporation in (1)), and there is no equivalent to the *-er* suffix in these examples. Instead the agent is expressed by an apparently lexical noun (e.g. *tagata* ‘person’).²

(2)	a.	tagata	tohi	tala	
		person	write	story	“story writer”
	b.	tagata	tā	piliki	
		person	do	brick	“bricklayer”
	c.	tagata	taute	paipa	vai
		person	make	pipe	water
	d.	tau		pele	lakapi
		group(human)	play	rugby	“rugby team”
	e.	tagata	kitekite		
		person	watch(Pl.)		“audience”
	f.	fanau	aoga		
		youth	study		“students”

2 ANALYSIS

To analyze these compounds, we adopt (1) for the right-hand part of the structure, as shown below in (3), which uses (2a), *tagata tohi tala* (‘person write story’, i.e. ‘story writer’) as the example.

(3) [_{√P} √WRITE n √STORY]

The order of the V and O remains as is, which is expected if the language lacks head movement and incorporation. There is thus no movement of the lowest root to the categorizing *n*, and no movement of this (now complex) *n* to the verb root: this results in the non-inverse surface order as shown in (2).

As for the left side of the merge-order structure, we find, in place of the *-er* morpheme, what looks to be a lexical noun to express the agent. How might such elements be included in the analysis? One solution might be that, in the absence of an *-er n*, Niuean allows apparent roots like *tagata* ‘person’ to merge directly as *n*, at least in these compounds, acting like the affix in an English synthetic compound. Another possibility might be that the lexical noun head-adjoins to *n* and modifies it.

There are problems, though, with the proposal that *n* nominalizes its _{√P} sister while also expressing the agent role, as discussed in Chen (2017). First, within Harley’s analysis, the head of the compound is the first merged element in the sister of the categorizing *n* in root compounds

² Of course, this raises the issue of whether these are compounds or phrasal nominals with modifiers. Given their lexical nature, as seen in their translations, the absence of functional elements, and the issues around defining words in general in Niuean (e.g. Sperlich 1997:28, Biggs 1965), we consider them to be compounds, and we will not enter into extensive discussion about this issue in this short paper.

(such as *nurse shoe*, which is a shoe), whereas in synthetic compounds, the element in this same position, ($\sqrt{\text{drive}}$), is not the head: rather the entity contributed by *n* itself (the agent *-er*) is the head (*truck driver* is a person, not a drive). In addition, it is not clear that the root (*drive*) and its complement can encode a thematic relation, or whether the resulting phrase can assign an external theta role to *-er* or *tagata*, unless the root is categorized as a *v* (Alexiadou 2009). For these reasons, we follow Chen (2017) in expanding the size of the phrase under *n*, considering it to be a *vP*, rather than a $\sqrt{\text{P}}$. Once it is *vP*, an external argument (*-er*) can be merged,³ bearing the external theta role, and then the topmost categorizing *n* can merge above this *vP*, re-categorizing the *vP* as a noun, and uniformly nominalizing the first merged element in its sister (as in *nurse shoe*, for Harley). Thus, *-er* serves as the head of the compound. In (4) we see the hypothetical structure, complete but without incorporation indicated. (The head of the compound is underlined.)

(4) [*n* [_{vP} *-er* *v* $\sqrt{\text{DRIVE}}$ *n* $\sqrt{\text{TRUCK}}$]

For Niuean, the same structure can be posited, with *tagata* ‘person’, which we label as a root, as the external argument. The nominalizer *n* merges above the *vP*, nominalizing the *vP* and once again, the first element in its sister ($\sqrt{\text{tagata}}$) is the head.

(5) [*n* [_{vP} $\sqrt{\text{TAGATA}}$ *v* $\sqrt{\text{WRITE}}$ *n* $\sqrt{\text{STORY}}$]

An important advantage to separating the head of the synthetic compound from the nominalizer that takes scope over the whole compound is that this view allows us to account for Niuean theme synthetic compounds as well, where the reference of the whole compound is to the theme of the verbal element, rather than the agent. Examples are given in (6).⁴

- | | | | |
|-----|----|--------------|-------------|
| (6) | a. | mena kai | |
| | | thing eat | “food” |
| | b. | mena iloa | |
| | | thing know | “knowledge” |
| | c. | mena tutupu | |
| | | thing happen | “event” |

Since the head of the compound here has the role of internal argument, rather than external argument, it is not straightforward to directly merge it in *n*, outside of the verbal phrase, as in (1). In other words, the analysis in (1) works because the *-er/tagata* element is an external argument. Examples such as those in (6) indicate that the position or role of the head of a compound is not akin to the thematic external position, since compounds exist with either the external or internal argument as head (rather like the role of subject, which can be agent or theme). The inverted word order in (6), in which the theme uncharacteristically precedes the verb (vs. VSO sentential order for transitive sentences, and VOS order in case of pseudo noun incorporation), suggests that there is some kind of movement from the thematic position of complement to a preverbal position,

³ We remain vague as to the category of *-er*, though we consider the Niuean equivalent, *tagata*, to be a root.

⁴ For such examples, we searched *mena* “thing”, so all our examples include this word. (It is a nice word for a Lisa de Mena Travis volume.) We have not yet explored whether heads other than *mena* are possible in such compounds.

where it can be in the right configuration to be understood as the head of the compound.

We thus posit a structure as in (7), in which the object root moves to the edge of vP, leaving a copy. This movement mirrors object fronting in sentences, where if an NP object is to be interpreted as referential, it must always undergo fronting, in which case it is expressed as a DP with case, not as an NP (Massam 2001). In a sentence, this movement occurs to a position below the external argument, yielding VSO order in transitive sentences with referential objects. Within a compound, though, similar object movement is only possible in the absence of an external argument. The only way for the object to eventually become head of a DP and thus to be interpreted as referential, is if it can become the head of the compound. Thus, we do not find transitive synthetic compounds where the theme is the head (e.g. *person thing eat* ‘‘food’’).⁵

(7) [n [_{vP} \sqrt{MENA} v \sqrt{EAT} n \sqrt{MENA}]

Here too, as in the cases above, the higher n nominalizes the whole vP compound, with the first element in its sister being the head of the compound. This analysis allows for a uniform characterization of the head of a compound: the head is always the leftmost merged element within the sister of n.

3 CONCLUSION

In this paper, we have presented an analysis of Niuean synthetic compounds which, unlike traditional analyses, does not involve incorporation or affixation, which is in accordance with other general properties of Niuean. In order to allow for uniform theta assignment, and to accommodate both agent and theme compounds, we have posited that these compounds involve a re-categorization process from vP to nP (cf. Kornfilt & Whitman 2011, for phrases), which also allows for a uniform designation of which element is the head of a compound: it is always the first merged element in the sister of n. These constructions underscore the long-noted lack of a clear distinction between phrases and words in Polynesian languages (e.g. Biggs 1965, Sperlich 1997) and the prevalent idea that categorization is quite a high process in Polynesian languages (e.g. Biggs 1971, Broschart 1997, Massam 2005, McEwen 1970, Mosel and Hovdhaugen 1992). The constructions also support the view that words can be built through regular syntactic structure-building mechanisms (Piggot & Travis 2013, 2017), and they suggest that categorization can be shifted within a word, and that it is only with the higher introduction of functional material such as number, determiners, or case markers, that truly syntactic nominals are formed.

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⁵ A potential problem is the movement of the root *mena*, without its categorizing n. Since in Niuean, roots do not synthesize with their categorizers, and since this is not syntactic movement, rather, it is occurring within a word, we assume that such roots can be moved alone, and further, that they can move to specifier of vP, normally the position for an external argument.

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