Conventionality and lexical classes

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Definitions of parts of speech or lexical classes are often restricted to single words or "lexical items," defined as morphological stem plus affixes. This paper suggests that, for nouns, the notion "lexical item" can meaningfully be extended to any conventionalized expression meeting the semantic and syntactic criteria for nounhood, irrespective of internal morphosyntactic complexity. Taken together, the criteria for nounhood proposed here not only account for the properties of complex nominal expressions, but also shed light on the cross-linguistic behaviour of hybridized lexical classes such as relational nouns.

In traditional approaches to parts of speech, lexical class membership is restricted to single words, usually defined roughly as morphological stem plus affixes. Linguists working with polysynthetic and morphologically complex languages, however, frequently find that the translation equivalents of simple, monomorphemic nouns in English are in fact morphosyntactically complex expressions that are, at least formally, the equivalent of finite clauses. This paper suggests that the notion "noun" can meaningfully be extended to any conventionalized expression meeting the semantic and syntactic criteria for nounhood, irrespective of internal morphosyntactic complexity. Taken together, the criteria for nounhood proposed here not only account for many of the properties of complex nominal expressions, but also shed some light on the cross-linguistic behaviour of what appear to be "hybridized" lexical classes such as relational nouns which deviate from the typical morphosyntactic and semantic profile of the prototypical noun.

1 Criteria for nouniness

While criterial definitions of parts of speech (that is, definitions of parts of speech setting out necessary and sufficient conditions for lexical class membership) are hard to come by, there is widespread agreement about the semantic and syntactic properties of the prototypical noun. Semantically, nominal entries in the lexicon

(1) (a) have a conventionalized meaning expressing a semantic KIND (Wierzbicka 1988)
(b) are *conceptually autonomous* (Langacker 1991)

Criterion (1a) simply asserts that a prototypical noun has a conventionalized (usage-based) meaning whereby it assigns its referent to a class of like entities defined by a broad range of associated characteristics, or what Wierzbicka (1988) terms a KIND. As KINDs, nouns identify their referents

> as one might put a label on a jar of preserves. One might say that a noun [referring to a person] is comparable to an identifying construction: "that's the kind of person that this person is". (Wierzbicka 1988: 468)

KINDs may have constellations of features associated with them, but they are not reducible to any given combination of those features. Thus, the word *dog* denotes an entity (usually a canine) that has enough of the relevant characteristics of dogs to be so designated in the context of its use. For the vast majority of nouns, like *dog*, the phonological shape of the word has no predictable relationship to its semantics, and so the association between form and meaning in these cases can be said to be (in a trivial sense) conventionalized in that a phonological string is associated with a semantic representation through conventional usage. In the cases where the association between meaning and form is not so arbitrary, however, as in the case of derived or compositional forms, the issue of conventionalization (discussed in more detail in Section 3) becomes somewhat less trivial and is crucial to the success of the semantic criteria set out in (1).

The second criterion in (1b), *conceptual autonomy*, makes reference to the fact that prototypical nouns

are conceived of as existing on their own—that is, unlike verbs, they require the existence/presence of no other entity but themselves. In other words, a dog is a dog independently of the existence of any other entity (except, perhaps, the observer), whereas to be instantiated *eat* requires an eater and *big* requires some thing which is of a large size, and so on.

Syntactically, it is widely held that prototypical nouns

(2) (a) are unmarked as syntactic actants (*e.g.* Hengeveld 1992)
(b) are syntactically *closed* (*i.e.* must have an unfilled (core) syntactic valency of zero)

Of these two criteria, (2a) is the least controversial and is often used as the sole criterion for defining the lexical class of noun (for some problems with this approach, largely typological, see Beck 1999). Criterion (2b) is somewhat more novel although, like conventionality, it seems to apply only trivially to lexical nominals like *dog* and becomes important only when confronted with morphologically and/or syntactically complex elements which take on nominal syntactic roles in a sentence.

Clearly, these semantic and syntactic criteria—particularly (1b) and (2b)—are complementary, level-specific instantiations of commensurate principles and serve as potential measures of Weak Iconicity (Beck 1999) at the semantics ⇔ syntax interface. More importantly, as criteria for nounhood, these formulations make no reference to the internal syntactic make-up of lexical items, meaning that clausal or multi-word items with these properties can qualify as nouns. Leaving aside (2a) (which is pretty much a truism), we will examine in more detail the implications the criteria in (1) and (2) have for our notion of noun, beginning with syntactic closedness and conceptual autonomy (Section 2) and then moving on to conventionality (Section 3) and how complex expressions evolve from syntactically active sources such as finite clauses through a process of conventionalization (Section 4).

2 Closedness and conceptual autonomy

As stated in (1b), prototypical common nouns are conceptually autonomous entities (Langacker 1991) in that they exist on their own, can be conceptualized independently of other entities, and have no connotational/intensional semantic arguments.[1] This latter property is reflected in the syntax in that prototypical common nouns have no (unmarked) syntactic actants—that is, they are syntactically *closed*. This pairing of a semantic feature and the iconic expression of this feature as a syntactic property is an example of the Principle of Weak Iconicity (Beck 1999):

(3) *The Principle of Weak Iconicity*
In the unmarked case, syntactic structure will be isomorphic with, or a direct reflection of, its underlying semantic structure

This principle also makes the prediction that non-isomorphism between the semantic and the syntactic levels of representation—that is, where the properties of a semantic element do not align directly with the syntactic properties of its expression—will result in cross-linguistically variable treatment of the elements in question. One prominent example of this is the relational noun such as a kinship or bodypart term, which has many of the prototypical semantic properties of nouns but is not entirely conceptually autonomous. As discussed in Section 2.1, relational nouns vary across languages both in terms of their parts-of-speech membership and, more commonly, in terms of their behaviour as non-canonical members of the class of

[1] There is in some schools of linguistics a tradition which includes nouns in the class of argument-taking semantic predicates in that they designate a class of objects or entities and, in use, predicate membership in these classes. In these approaches, the particular instance of the type to which the noun is applied—that is, its referent—takes on the status of an argument of the noun. Leaving aside the structural issues raised by different applications of this insight, the basic observation is absolutely true in a logical sense: words in use have extensions in the real world and generally refer to actual instantiations of the object, events, and properties they designate. However, at least for heuristic purposes, I would like to posit here that these are not *linguistic* arguments in the same sense that, say, the event-participants expressed by subjects and objects of verbs are linguistic arguments. While this may represent a significant departure from traditional approaches to linguistic modeling based on truth-value semantics, it seems to me that this assertion is consistent with the idea that semantic representations are formal objects composed only of properly linguistic (semantic) elements. In other words, the referents of words are not parts of linguistic structure *per se*. The semantic arguments governed by predicates are not the real-word entities designated by the meanings of words, they are the meanings themselves.

noun. Weak Iconicity also predicts that semantically complex expressions involving multiple participants must, in order to function syntactically as nouns, have an unfilled syntactic valency of zero and so be syntactically closed, an issue taken up in Section 2.2 below.

2.1 Conceptual autonomy and relational nouns

Relational nouns such as bodypart and kinship terms are non-prototypical semantically in that they entail the existence of some other discrete, potentially individuable entity in their semantic profile. Thus, while they are to a certain degree conceptually autonomous in that referents of relational nouns (RNs) exist on their own (or can exist on their own) and clearly designate KINDs, they are less autonomous than common nouns in that they require another entity for their identification. This entity (or a schematic representation thereof) must necessarily be included in the semantic representation of an RN; such entities will be referred to here as *classificatory landmarks* (CLMs).[2] According to the Principle of Weak Iconicity, the reduced conceptual autonomy of relational nouns means that meanings of this type should not only be the locus of cross-linguistic variation in lexical class membership but should also vary across languages in the degree to which they conform to the prototypical syntactic properties of the lexical class to which they belong. As it turns out, both predictions are borne out by the typological data. In a few languages, what are RNs in English and many other languages, particularly kinship terms, are, in fact, lexically verbs (Evans 2000); more commonly, however, RNs are realized as nouns but exhibit special properties with respect to the expression of their CLMs as possessors, resulting in systems of *inherent* or *inalienable* possession.

2.1.1 Inherent possession

Inherent possession refers to a system of possessor-marking in which the possessors of RNs are expressed obligatorily (Payne 1997). Inherently possessed nouns are non-prototypical in that they are syntactically non-closed—*i.e.*, they can not be used without the expression of a possessor, as in Upper Necaxa Totonac (words in citation form bear the third-person possessive prefix *iš-*):

	Upper Necaxa Totonac			
(4)	išna:ná	'his/her grandmother'	išnapa:skín	'her sister-in-law'
	išą̲ʔalo̲ʔót	'its horn'	iščę̲ʔén	'his/her/its leg'
	išʔósni	'its point, tip'	ištampín	'its base, lower part'
	ištampún	'its bottom (cup, etc.)'	išli:mán	'oneself'
	ištapáł	'its price, value'	išlakamacát	'his/her salted tortilla'

As in many languages, RNs in Upper Necaxa include kinship terms and bodyparts, but may also subsume expressions of part-whole relations, things that can not exist without a possessor, or things that are culturally salient as possessions.[3] Such nouns are always realized by speakers with a possessive prefix and are generally rejected as ungrammatical if they are offered without one—thus, they are syntactically non-closed in that they require the syntactic expression of their CLM.

2.1.2 Inalienable possession

Inalienable possession refers to a grammatical system that uses a special paradigm of possessive morphemes for the possessors of certain RNs, as in the following examples from Tunica:

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[2] The term "landmark" as it is used here is purloined from Cognitive Grammar (Langacker 1991), where it is used to designate some entity with respect to which the denotation of a linguistic expression is defined. The landmark of the expression *fall*, for instance, is the ground towards which the falling object moves; the landmark of *hot* is a region on the temperature scale; and the landmark of *kiss* is the recipient of the action of the kisser (the protagonist of the event), who is considered to be the primary clausal figure or *trajector*.

[3] Levy (1999) suggests that all syntactically independent bodypart expressions in Totonacan languages are, in fact, derived from the combination of a bodypart prefix with a nominalizing suffix. This may mean that, at least historically, bodypart expressions were syntactic predicates.

Tunica

(5)	ʔo:+siku	'his father'	:	ʔo:+rusa	'he knows'
	ʔuhk+ʔiyutʔę:ku	'his hog'	:	ʔę:h+ʔuhk+i	'he kicked'

(Mithun 1996: 151)

In languages that mark inalienable possession, possessors of RNs take a different possessive marker than ordinary possessors: in Tunica, the inalienable possessive prefixes are homophonous with patient/stative person-markers (*ʔo:-* in (5)), while ordinary possessive prefixes are homophonous with agentive person-makers though the opposite pattern is found in other languages.

In these systems, the distinction between an ordinary possessor and one that is a CLM is marked by the choice of possessive paradigm, making it possible to explicitly distinguish between types of possession:[4]

Hawaiian

(6)	(a)	ke	kiʔi	a	pua	:	ke	kiʔi	o	pua
		ART	picture	ALN:PO	Pua		ART	picture	INALN:PO	Pua
		'Pua's picture' (owned or painted by Pua)					'Pua's picture' (a picture of Pua)			
	(b)	na	iwi	a	pua	:	na	iwi	o	pua
		ART	bone	ALN:PO	Pua		ART	bone	INALN:PO	Pua
		'Pua's bones' (that Pua eats, cooks)					'Pua's bones' (bones in Pua's body)			

(Trask 1993: 136–37)

As with inherent possession, languages vary as to which nouns may be inalienably possessed, although again kinship terms and bodyparts are the core meanings in any class of inalienably possessable nouns.

Inalienably possessed nouns are not inherently possessed in every language, although some languages make use of systems which combine both inherent and inalienable possession. Both systems, however, whether combined or not, recognize the reduced conceptual autonomy of (a language-specific sub-class of) relational nouns and the special status of CLM-possessors. This gives us a range of cross-linguistic variation in the treatment of CLMs ranging from languages like English that have neither inalienable or inherent possession and which treat CLMs as an ordinary sub-component of the word's meaning, (optionally realized as a possessor), through languages like Tunica and Hawaiian that recognize the special status of CLMs via the use of inalienable possession, to languages like Upper Necaxa that have inherent possession and therefore deal with CLMs in much the same way that verbs deal with their actants, obligatorily elaborating them as possessors. This follows from the fact that relational nouns differ from prototypical nouns in having reduced conceptual autonomy. In this respect they share one of the prototypical semantic properties of verbs and so, in inherent-possessor languages, they are (like verbs) syntactically non-closed; however, they remain expressions of KINDs and in most languages RNs function as unmarked syntactic actants of verbs. These are prototypical features of nouns and account for the cross-linguistic realization of RNs as nouns in most (but not all) of the world's languages.

2.2 Closedness and finite clauses

Syntactic closedness and conceptual autonomy not only play a role in determining the language-specific properties of RNs (which are still basically the expressions of KINDs), they also play a role in determining what kinds of syntactically complex expressions are treated by the lexicon—and by the syntax—as nouns. It is a commonplace for Americanists that many languages have expressions which are semantically the equivalent of English nouns but are (or appear to be) structurally the equivalents of finite clauses. Consider this data from Upper Necaxa Totonac:

[4] The abbreviations used in this paper are as follows: ALN = alienable; ART = article; CLM = classificatory landmark; CMP = completive; CS = causative; HREL = human relative pronoun; IMSUBJ = impersonal subject; IMPF = imperfective; INALN = inalienable; MASC = masculine; NEU = neuter; NP = nominalizing prefix; OBJ = object; PNT = punctual; PO = possessive; PST = past; RN = relational noun; SG = singular; SUBJ = subject.

Upper Necaxa Totonac

(7) (a) ti: Ø+Ø+ma:+w+í:
HREL 3OBJ+3SG:SUBJ+CS+eat+CS
'his wife'
(lit. '3SG who feeds 3SG')

(b) ti: ki+Ø+ma:+w+í:
HREL 1OBJ+3SG:SUBJ+CS+eat+CS
'my wife'
(lit. 'the 3SG who feeds me')

(c) ti: ik+Ø+ma:+w+í:
HREL 1SG:SUBJ+3OBJ+CS+eat+CS
'my husband'
(lit. 'the 3SG I feed')

In Upper Necaxa, expressions such as these behave internally as finite relative clauses. Thus, the counterpart to the possessor of the English RN *wife* in (7b) is the direct object of the relative clause (*cf.* the realization of the possessor of an ordinary noun—*kinčičį* 'my dog', *minčičį* 'your dog', etc.), while the equivalent of the possessor of *my husband* is the syntactic subject of the expression in (7c). In spite of the fact that they are syntactically "active" relative clauses, however, they conform to the prototypical characterizations of nouns given in (1) and (2) in that they express KINDs, have the NP-external syntax of monomorphemic nouns, and have conventionalized meanings (*i.e. ti: ikma:wí:* *'my wife', even if I_{MASC} do the cooking). Like RNs, on the other hand, they are not entirely conceptually autonomous in that their meaning includes the identity of another object over and above that of their referent: note, however, that the expressions of the identities of all of the semantic arguments of the predication are realized (in this case, as agreement-markers) within the syntactic bounds of the expression as a whole. The valency of the verb at the heart of the expression—*ma:wí:* 'to feed'—is completely filled and so, like a common noun, *ti: ma:wí:* 'his wife' is syntactically closed.

Even in English, finite clauses with saturated syntactic valency overlap in syntactic distribution with nouns, as they do in most other languages:

English

(8) (a) I know [that he is coming]
(b) I wonder [what he will do]
(c) [That he doesn't care] annoys her

As units, these finite subordinate clauses are conceptually autonomous (they require the participation of no other entities than those already included in the expression), and they have an unfilled syntactic valency of zero and so are syntactically closed (necessarily so—*cf.* (8b) and **I wonder what will do*). Semantically, however, the expressions in (8) differ from those in (7) in that they are not conventionalized (and so would not have an entry in the lexicon) and do not represent KINDs. While we might be able to treat the expressions in (8) as *syntactic* nominals, it would certainly be a mistake to give them a nominal lexical entry in the lexicon for the simple reason that these are not conventionalized expressions but one-off expressions of spatio-temporally grounded events.

3 Conventionality

As we saw above, an important distinction between truly nominal expressions and finite clauses is that the former have conventionalized meanings as kinds whereas as the latter, while syntactically like nouns, express unique, grounded instances of objects identified by their participation in a specific event. Note, however, that the distinction does not involve morphosyntactic complexity: as shown by the Totonac expressions in (7), it is possible for syntactically complex, multi-word expressions to require nominal entries in the lexicon. In some languages, morphosyntactically complex expressions of KINDs may only be distin-

guishable from finite clauses on the grounds of their having a particular conventionalized meaning:

Tuscarora (Mithun 1976)

(9) (a) ra+kwá:this
MASC+young
'he is young' or 'boy' (p. 26)

(b) ka+téskr+ahs
NEUT+stink+IMPF
'it stinks' or 'goat' (p. 30)

(c) ra+kwá:this wa+hr+ø+atkáhto+? ka+téskr+ahs
MASC+young PST+MASC:SUBJ+OBJ+look:at+PNT NEU+stink+IMPF
'the boy looked at the goat' (p. 32)

On the second of their interpretations, *katéskrahs* 'goat' and *rakwá:this* 'boy' express KINDs and are conceptually autonomous; they are also unmarked actants of a verb, as shown by (9c), and syntactically closed. Sasse (1993) and Hengeveld (1992) thus argue that Tuscarora does not distinguish nouns and verbs—that is, there are no nominal entries in the lexicon, rather noun-equivalents are formed in the syntax as finite clauses based on verbs. This analysis, however, overlooks the fact that not all nouns are analyzable and not all finite clauses have readings as KINDs.[5] Indeed, *katéskrahs* 'goat' and *rakwá:this* 'boy' have conventionalized meanings not predictable from their component parts (things other things than goats can stink) and so require special entries in the lexicon linking their phonological forms with these particular meanings, whereas their analytical interpretations as clauses do not. Furthermore, in their nominal uses such expressions no longer have the inflectional possibilities of a finite clause:

Tuscarora

(10) ka+téskr+hs+hahk
NEUT+stink+IMPF+PAST
'it used to stink', *'it was a goat, ex-goat, $goat_{PAST}$'

(glosses M. Mithun, p.c.)

Clearly, the Tuscarora lexicon has an entry for 'goat' which is superficially identical in form to a finite clause, but which nevertheless meets the criteria set out here for a prototypical noun. The same is true of many multi-word nominal expressions in Upper Necaxa Totonac:

Upper Necaxa Totonac

(11) (a) ik+lą?cí+ɬ (*iš+)wa+kán čį̄čį̄nį́
1SUBJ+see+CMP (PST+)eat+IMSUBJ sun
'I saw the solar eclipse'

(b) ik+lą?cí+ɬ (*iš+)wa+kán małkuyúx
1SUBJ+see+CMP (PST+)eat+IMSUBJ moon
'I saw the lunar eclipse'

Like the Tuscarora examples, these expressions are syntactically inert in that they do not inflect for tense or aspect (or, more accurately, they are "frozen" in the present imperfective) and they have conventionalized meanings as KINDs. Like ordinary monomorphemic nouns, they are unmarked actants, are conceptually autonomous, and syntactically closed, in spite of their internal morphosyntactic complexity. Like the data in (9) expressions such as those in (11) have all of the characteristics of prototypical nouns listed in (1) and (2) and would have to be given nominal entries in the lexicon.

[5] See Mithun (2000) for a through and convincing de-bunking of this position on a number of other grounds as well.

4 Conclusion

One of the main ideas behind this paper has been to show the necessity of allowing morphosyntactically complex, even multi-word, linguistic signs to be treated in the lexicon as nouns—that is, to show that the traditional notion of a "noun" as being a stem+affix combination is both typologically and theoretically inadequate. Many of the expressions discussed here share the prototypical semantic properties of monomorphemic nouns in that they are linguistic signs associated by convention to an identifiable, conceptually autonomous entity characterizable as a KIND. Syntactically, such expressions are treated as nouns in the syntax, as are expressions such as those in (8). These expressions, however, do not qualify as nouns for the purposes of the lexicon in that they designate unique objects, one-off events, or grounded instances of their referents, rather than KINDs. Being unique and *ad hoc*, they are constructed, not prefabricated, and so are non-conventionalized and by definition not given an entry in the linguist's lexicon, let alone a nominal one.

Whether or not the same is true of the speaker's lexicon is not as clear, although it is a dearly-held *credo* of modern linguistics that smaller and more elegant is better. This is, of course, an aesthetic criterion for judging theories and may or may not be an accurate reflection of the real-world lexica of living, breathing human beings. Indeed, it seems likely that in the case of commonly used derived forms, speakers may have "lexical entries" already stored (that is, they do not need to parse them in order to process them). As Langacker (1991) points out, even derived forms that seem to be morphologically transparent, such as *stapler* (= staple+er 'that which/the one who staples'), may have highly conventionalized meanings consistent with but not predictable from their composition. Thus, in all but the most specific circumstances, *stapler* does not mean merely 'that which/the one who staples', but refers to a specific class of small, handheld or -holdable instruments with two arms hinged together at one end used for forcing metal staples through paper. An even more conventionalized example is the word *computer*, which remains morphologically transparent ('that which/one who computes') but now refers only to a particular type of electronic device capable of executing complex instruction sets on data held in a memory register, but does not refer to other types of computational devices such as abacuses or calculators (even programmable calculators), or to people who carry out computations.

What seems to be at work here is an active, diachronic cline of conventionalization, whereby words move from being examples of completely transparent derivational meanings (*e.g. interviewer*), to having a transparent as well as a phraseologized or conventionalized meaning (*runner*—a type of shoe and a person who runs), to having a predominant conventionalized meaning (*stapler*), to having only a conventionalized meaning (*computer*). To the extent that the derivational process in question is productive, a given language should be expected to have individual words at various points on the cline. Consider the examples in (12):

Lushootseed

(12) (a) s+ʔəɬəd
NP+eat
'food'

(Hess 1993: 202)

(b) s+ʔuladxʷ
NP+yearly:activity
'salmon, anadromous fish' (*i.e.* 'what is harvested yearly')

(Hess 1993: 204)

Here, we see the completely transparent *sʔəɬəd* 'food' in (12a), a term applied to anything that is eaten, contrasting with the much more highly conventionalized *sʔuladxʷ* 'anadromous fish' in (12b), which refers only to the objects of seasonal fisheries, and not to any plant or animal gathered on a yearly basis or to any of the other annual activities of the Lushootseed community. Indeed, *sʔuladxʷ* seems to represent an additional degree of grammaticalization in that the stem on which it is based is no longer in use, representing the final rung on the cline of conventionality, wherein the derivation's origins become opaque and the word becomes a *bona fide* idiosyncratic member of the lexical inventory. Thus, even morphologically transparent derivations may have (or may only have) conventionalized meanings which must be part of a lexical entry for that derivation.

	simple stem+affix	morphosyntactically complex
transparent meaning:	interviewer	the one who tilled my garden
transparent & conventionalized:	*runner* 'a person who runs' 'a type of shoe'	*katéskrahs* 'it stinks' 'goat'
predominantly conventionalized:	*stapler* 'desktop stapling tool' ?'someone who staples'	*ti: ma:wí:* 'his wife' ?'she who feeds him'
conventionalized meaning only:	*computer* 'computer' *'one who computes'	*wakán čįčįnį* 'solar eclipse' *'the sun is eaten'

Table 1: Grammaticization of simple and complex expressions

Multi-word and clausal nominal expressions follow precisely the same pattern, beginning as transparent, *ad hoc* expressions but over time become increasingly associated with specific classes of referents and become increasingly frozen and conventionalized. The parallels between the grammaticization of simple morphological derivations and morphosyntactically complex expressions are illustrated in table 1. For both simple and complex expressions, then, whether or not a nominal entry in the lexicon is required depends on the degree to which their meanings have become conventionalized expressions as KINDs. Such expressions are, by dint of Weak Iconicity, predicted to be syntactically closed and to serve as the unmarked actants of verbs, thereby conforming to the prototypical semantic and syntactic properties of nouns set out in (1) and (2) above. Weak Iconicity also accounts for the non-prototypicality of certain classes of atypical lexical items such as relational nouns. Departure from the prototypical semantic criteria for nounhood is thus shown to be a potential motivation for departure from prototypical syntactic nominal properties. Morphological or syntactic complexity, however, is not a factor and no longer seems to be a relevant criterion for determining whether or not an expression requires an nominal entry in the lexicon.

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