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Nominalization in cross-linguistic diachronic perspective

Abstract: While more and more data are now available on languages rich in nominalizations, such as those of Latin America, the literature on nominalization is mainly synchronically oriented. The paper discusses several pieces of diachronic evidence about the origins of nominalization cross-linguistically. This evidence challenges the idea, widely held in the functional-typological literature, that the use of nominalizations reflects a non-default treatment of particular expressions, and that this motivates the distinguishing properties of nominalizations vis-a-vis other constructions. Diachronic evidence also points to possible motivations for the fact that nominalizations fail to consistently display the same structural properties, both cross-linguistically and within individual languages, and fail to be consistently used in the same contexts from one language to another.

1 Introduction

Over the past decades, more and more data have become available on languages rich in nominalizations, such as those of Latin America. This has led to renewed interest in these constructions in functionally and typologically oriented research. In this framework, nominalizations have mainly been investigated in relation to subordinate clauses, word formation, and parts of speech classes (Koptjevskaja-Tamm 1993, Croft 1991 and 2001, Hengeveld 1992, Cristofaro 2003, Malchukov 2004, Comrie and Thompson 2007). In addition, a variety of phenomena have been described that are related to nominalizations cross-linguistically. For example, the re-

analysis of constructions involving nominalizations can give rise to new alignment, TAM, voice, and word order patterns. The ellipsis of a main predicate taking a nominalized complement can lead to patterns where the latter is used independently to convey the meaning originally associated with the construction as a whole, for example background information, various types of modal meanings, exclamations, or hot news (insubordination: Evans 2007, Mithun 2008, Cristofaro 2016).

These patterns have been described for many languages of Latin America (see, for example, Gildea 1998 and many of the papers collected in van Gijn, Haude, and Muysken 2011 and Comrie and Estrada-Fernández 2012), and are discussed in several papers in this volume (Bruil, Cahon, Gipper and Yap, Machado, Peña). They basically involve a number of diachronic processes whereby constructions involving nominalizations can give rise to new ones. Comparatively little attention, however, has been devoted to how nominalizations arise in the first place. Theoretical studies of nominalization as a general phenomenon usually only refer to the synchronic properties of different nominalization types, for example in terms of argument structure, presence vs. absence of particular categorial distinctions (e.g. TAM distinctions), or the entity type denoted by the construction, e.g. agents, patients or actions (Koptjevskaja-Tamm 1993, Malchukov 2004, Comrie and Thompson 2007). Research on nominalization in individual languages has collected evidence about the origins of nominalizers, the dedicated morphemes sometimes used to mark nominalizations, but the relevant data are unsystematic and have not been integrated into theoretical treatments of nominalization in general.

The goal of this paper is to show that, while overall scanty, the available di-

achronic evidence on the origins of particular nominalization types cross-linguistically poses various challenges for a number of traditional assumptions about nominalization as a general phenomenon. In particular, this evidence challenges an idea, widely held in functionally and typologically oriented approaches, that the use of nominalizations reflects a non-default treatment of particular expressions, and that this motivates the distinguishing properties of nominalizations vis-a-vis other constructions. Diachronic evidence also points to possible motivations for various phenomena not fully accounted for in traditional views of nominalization, such as the fact that nominalizations fail to consistently display the same structural properties, both cross-linguistically and within individual languages, and the fact that they fail to be consistently used in the same contexts from one language to another.

A full understanding of nominalization, then, requires evidence about the historical origins of individual nominalization types in particular languages, in addition to data on the synchronic properties of these constructions. As this type of evidence is currently generally lacking for the languages of Latin America, the relevant issues will be illustrated based mainly on other languages. As will be shown in sections 4-5, however, these issues have general implications for a number of structural and distributional properties of nominalizations that are cross-linguistically widespread and can be observed in many languages of Latin America. In this respect, it is hoped that the paper will point to new issues in the description and analysis of nominalizations in individual languages, particularly, as is the case for Latin America, languages where these constructions have been investigated in some detail, but mainly in a synchronic perspective.

2 Some traditional assumptions about nominalization

The constructions identified as nominalizations in the literature are ones where lexical roots denoting processes, states or properties display at least some of the structural properties usually associated in the language with lexical roots denoting things, persons, or places. These properties include, for instance, case or gender marking, determiners, or possessive marking on the arguments notionally corresponding to A, P, or S arguments (that is, following a standard practice in typology, the two argument of transitive clauses and the only argument of intransitive clauses)¹.

Due to the presence of these properties, for example, relative clauses have been identified as nominalizations in several Tibeto-Burman languages (DeLancey 1999, among others). Relative clauses in many languages of Latin America are also often analyzed in this way. A case in point is Epps' (2008, 2009) analysis of relative clauses in Hup, a Nadahup language of Amazonia where the relative clause verb can take case and number affixes. In (1), for example, 'steal' carries an object affix.

Hup (Nadahup)

- (1) *tih=tæhʔín-ǎn-ǎh*, [*tih toh-ʔé-p=ǎy-ǎn-ǎh*]_{NMLZ}
 3SG=wife-OBJ-DECL 3SG steal-PERF-DEP=FEM-OBJ-DECL
 'To the woman he had stolen' (Epps 2009: 292)

Similar analyses of relative clauses in other languages of Latin America are

¹This description is intentionally neutral as to the status of the relevant constructions in terms of parts of speech distinctions. Nominalizations are traditionally defined as constructions 'turning something into a noun' (Comrie and Thompson 2007: 334). The distinction between nouns and other parts of speech is, however, a problematic issue, which many linguists argue can only be resolved in a language-specific and construction-specific way (Croft 2001, among others). Also, the various constructions identified as nominalizations in the literature usually only display some of the properties that can be regarded as distinctive for nouns in the language. For these reasons, these constructions are described here in terms of specific combinations of structural properties and types of conceptual entity denoted by a lexical root (processes, states, or properties as opposed to things, persons, or places), rather than in terms of an opposition between nouns and other parts of speech.

provided, for example, in Weber (1983), da Silva Facundes (2000), and several papers in Comrie and Estrada-Fernández (2012), van Gijn, Haude, and Muysken (2011), Chamoreau and Estrada-Fernández (2016), and this volume.

Many current approaches to nominalization assume that this phenomenon originates from a non-default treatment of particular expressions, and that this motivates the distinguishing properties of nominalizations vis-a-vis other constructions. When used in the description of individual languages, for example, the notion of nominalization typically involves an underlying assumption that nominalizations are special constructions used when verbs or adjectives are exceptionally being assimilated to nouns, so that they display at least some properties of the latter. In a number of functionally oriented theoretical approaches, nominalizations are assumed to reflect the fact that particular expressions are being used in a non-default function. For example, Heine and Kuteva (2007: 107) suggest that nominalizations are used when some expression encodes a non-default construal of particular conceptual entities, in the sense that non-time stable, dynamic phenomena (of the type usually encoded by lexical roots denoting processes) are construed as time-stable, thing-like phenomena (of the type usually encoded by lexical roots denoting things, persons and places). Similar ideas are developed in a number of models of parts of speech proposed in typology and cognitive linguistics (Hopper and Thompson 1984 and 1985, Langacker 1987 and 1991, Croft 1991 and 2001, Hengeveld 1992). In these models, different parts of speech classes are defined by default combinations of lexical roots on the one hand and discourse functions or cognitive profiles on the other. Nominalizations and other constructions such as predicate nominals or pred-

icate adjectives encode non-default combinations, which are possibly perceived by speakers as peripheral members of the class. For example, Hopper and Thompson (1984, 1985) and Croft (1991, 2001) assume that a speaker's mental representation of different parts of speech classes, namely nouns, verbs and adjectives, has a prototype structure with central and peripheral members. Prototypical nouns obtain when lexical roots denoting persons, things or places are used in discourse in order to refer to an entity. Prototypical verbs obtain when lexical roots denoting processes or states are used to predicate something about an entity, while prototypical adjectives obtain when lexical roots denoting properties are used to modify some other expression. Nominalizations are used when lexical roots denoting processes, states or properties occur in referring function². These combinations are unexpected and less frequent than the prototypical ones where roots denoting processes or states are used in predicating function, or roots denoting properties are used in modifying function. As a result, they may be signaled through nominalizers. Also, the construction may not display the full array of properties found when the relevant roots occur in their prototypical function, for example (for roots denoting processes or states) TAM or person distinctions, but it may display properties normally associated with prototypical nouns (case or gender marking, determiners, possessive marking on arguments)³.

²It should be noted that this view contrasts with several descriptions of individual languages where particular constructions are identified as nominalizations even though they are not used for reference. Relative clauses, for example, are analyzed as nominalizations in many languages despite that they are traditionally regarded as performing a modifying, rather than a referring function (though see Shibatani and Makhshen 2009 and Álvarez González, this volume, for an analysis of relative clauses as referring expressions).

³Langacker (1987 and 1991) and Hengeveld (1992) propose similar models, but Langacker defines parts of speech in terms of prototypical cognitive profiles, rather than discourse function, while Hengeveld's model does not involve prototypicality.

The idea that the use of nominalizations reflects a non-default treatment of particular expressions is based on the synchronic structural properties of the relevant constructions, for example presence of nominalizers or absence of particular categorial distinctions. To the extent that particular factors are assumed to motivate nominalization, however, those factors should in principle play a role in the diachronic processes leading to the development of the relevant constructions in individual languages. In what follows, it will be argued that in many cases the available evidence about these processes does not actually support the idea that nominalizations originate from a non-default treatment of particular expressions, and that this motivates their distinguishing properties vis-a-vis other constructions. In particular, these properties often reflect the properties of particular source constructions that give rise to the nominalization, rather than an opposition between the default and non-default uses of particular expressions.

3 Nominalization and the origins of nominalizers

Diachronic evidence about the origins of nominalizations mainly pertains to a number of recurrent cross-linguistic processes that give rise to nominalizers. In particular, nominalizers have been shown to typically develop from semantically generic expressions such as ‘thing’, ‘matter’, ‘one’, ‘person’, ‘that’, and the like, which occur in referring function in different types of source constructions and evolve into nominalizers as these constructions are reanalysed.

In many cases, for example, the source construction is one where the referring expression is modified by an expression denoting a process or a state, that is, ‘the

one/the person Verbing (something)’ (or ‘the Verbing one/person’), ‘matter/thing (of) Verbing’ (or ‘Verbing matter/thing’), ‘place for Verbing’ (or ‘Verbing place’). Alternatively, this expression can be used in predicating function, e.g. ‘one Verbs’. Over time, the construction maintains its global meaning, but the specific meaning of the referring expression is bleached, so that its referring function is transferred onto the construction as a whole, and the original referring expression survives as a marker of this function, that is, a nominalizer.

While diachronic evidence about the etymology of nominalizers is generally lacking for the languages of Latin America, Gipper and Yap (this volume) suggest, for example, that this may have been the origin of the nominalizer =*ti* attested in the Bolivian language Yurakaré, which is structurally similar to the demonstrative pronoun *ati*. Similarly, Moore (1989) shows that in Gavião, a Tupian language of Brazil, the nominalizers *méne* and *mát* also functions as pronouns, as can be seen for *méne* in (2a) and (2b). This suggests that the relevant nominalizations developed from constructions where an expression denoting a process or a state modified the pronoun, for example, for (2a), ‘that of hunting, the cause’ or the like.

Gavião (Tupi)

- (2) a. [*gakoráá méne*]_{NMLZ} *tígí*
 hunt NMZR cause
 ‘cause to hunt’ (Moore 1989: 314)
- b. *méne sot-ka teé b’o tá-màà*
 that bad-make CONTIN FOC 3PL-AUX.PAST
 ‘They messed that up.’ (Moore 1989: 311)

Outside Latin America, these processes have been postulated for several languages, for example in the Tibeto-Burman family. A case in point are Classical and

Lhasa Tibetan, where the nominalizer *-rgyu*, illustrated in (3) and (4), is historically derived from the noun *rgyu* ‘matter, substance’ (Beyer 1992: 296).

Classical Tibetan (Sino-Tibetan)

- (3) [*n̄a-la dgos-rgyu*]_{NMLZ}
 I-to need-NMZR
 ‘Something for me to need’ (Beyer 1992: 297)

Lhasa Tibetan (Tibeto-Burman)

- (4) [*di'i skad=cha dris=rgyu*]_{NMLZ} *gus=zhab*
 this-GEN question ask-NMZR polite
med-pa red
 not.be-PERF/DISJUNCT
 ‘It’s not polite to ask about this’ (DeLancey 2003: 284)

The etymology of the nominalizer suggests that the original structure of these constructions may have been ‘my needed substance’, ‘the matter of asking’, or the like.

In Lotha Naga, the nominalizer *-ò* probably developed from a demonstrative pronoun (Herring 1991: 66). Thus, a relative clause such as the one in (5), ‘the boy who will come tomorrow’ may have been, originally, ‘the boy, that one coming tomorrow’ (or, literally, ‘the boy, coming tomorrow that one’; more on this in section 5 below).

Lotha Naga (Tibeto-Burman)

- (5) *ēpóeróró [ociüà rō sa-ò]*_{NMLZ}
 boy tomorrow come VM-NMZR
 ‘The boy who will come tomorrow’ (Herring 1991: 61)

In Qiang, the nominalizer *-m* is historically derived from the noun *mi* ‘person’ (LaPolla 2003: 223-9), so that the construction in (6), literally ‘the hat wearer’, must have been, originally, ‘the person wearing a hat’, as in the English translation.

Qiang (Tibeto-Burman)

- (6) [tawə-ta-m le-ze]_{NMLZ}
 hat-wear-NMZR DEF-CL
 ‘The person wearing a hat’ (LaPolla 2003: 224)

The Niger-Congo language Supyire has a range of nominalizers transparently related to lexical items, for example ‘person’, ‘thing’, ‘time’, or ‘place’ (Carlson 1994: 107-119). These are illustrated by the constructions in (7a)-(7d) below, which are plausibly derived, respectively, from structures of the type ‘beg person’ (for ‘person that begs’), ‘thing make noise’ (for ‘thing makes noise’, ‘thing that make noise’, or ‘thing to make noise’), ‘thing separate’ (for ‘thing separates’, ‘thing that separate’, or ‘thing to separate’), ‘time to pay taxes’, ‘place where one lies down’⁴.

Supyire (Niger-Congo)

- (7) a. [ŋáára-fóo]_{NMLZ}
 beg-NMZR
 ‘beggar’ (cfr. *foo* ‘owner, possessor, person in charge’: Carlson 1994: 115-6)
- b. [ya-tin-ŋɛ]_{NMLZ}
 NMZR-make.noise-G2
 ‘musical instrument’ (cf. *yaaga* ‘thing’: Carlson 1994: 112)
- c. Ndé la à [py `ŋàmi-pìi kà-laha-ní]_{NMLZ} kè
 DEM it PERF be twins-DEF NMZR-let.go-G3 REL
 ‘that which caused the separation of the twins (from each other)’ (cf. *kyaa* ‘thing’: Carlson 1994: 112-3)

⁴In cases where multiple readings are provided for the source construction, this is because the latter is compatible with all of these readings, and there is no evidence to decide for any of them.

- c. *Kà lànmpú-ŋi [tèè-kaan-ní]_{NMLZ} sì nò*
 and taxes-DEF NMZR-give-G3 NARR arrive
 ‘Then the time to pay taxes arrived.’ (cf. *tèrè* ‘time’: Carlson 1994: 113)
- d. *[ta-sinaga]_{NMLZ}*
 NMZR-lie.down
 ‘bedroom, place where one lies down’ (cf. *tɛʔɛ* ‘place’ in the related language Cebaara: Carlson 1994: 110)

In Mojave, the nominalizer *ʔč-*, used in agent nominalizations and illustrated in (8a), is related to the indefinite pronoun *ʔč* ‘something’ illustrated in (8b). An expression such as ‘bird’ in (8a), then, must have been originally ‘something flies’, ‘something that flies’ (Munro 1976: 229).

Mojave (Hokan)

- (8) a. *[ʔč-iyer]_{NMLZ}*
 NMZR-fly
 ‘bird’ (Munro 1976: 229)
- b. *ʔč isva:r*
 something sing
 ‘sing something’ (Munro 1976: 229)

A different path leading to the development of nominalizers from originally referring expressions has been proposed by Estrada-Fernández (2008, 2012) for Pima Bajo, a Uto-Aztecan language of Mexico. In this language, a nominalizer *-kig*, used in relative clauses and illustrated in (9), may have evolved from a demonstrative element *higai* ‘that one’.

Pima Bajo (Uto-Aztecan)

- (9) *ig okosi [in=niir-kig]_{NMLZ} ig gi'id*
 DET.SUBJ woman 1SG.NONSUBJ=see.PERF-REL DET.SUBJ big
 ‘The woman I saw is big.’ (Estrada-Fernández 2012: 134)

Estrada-Fernández argues that, while the nominalization originated from the combination of the demonstrative with a co-occurring expression denoting a state or a process, the two were originally part of two distinct clauses in the source construction, with the demonstrative occurring in what becomes the main clause in the relative clause construction. For example, the original structure of a sentence such as the one in (9) would have been ‘the woman I saw, that one is big’, or the like. Over time, the demonstrative became attached to the preceding lexical root and evolved into a nominalizer. In this scenario, contrary to the other cases described above, the elements that give rise to the nominalization combine as an epiphenomenal result of linear adjacency, rather than because they stand in a specific relationship vis-a-vis each other.

The developmental processes postulated for nominalizers cross-linguistically have several consequences for traditional assumptions about nominalizations and their structural properties, as described in section 2. For one thing, these processes show that nominalizations need not originate from some non-default treatment of particular expressions. Rather, they can develop as semantically generic expressions are used in their standard referring function. In the source construction, these expressions are accompanied by a modifying or predicating expression, or are eventually combined with some adjacent expression modifying some other element in the sentence, as in the Pima Bajo case illustrated in (9) above. Over time, the referring function is transferred onto the construction as a whole, so that the modifying or predicating expressions become directly associated with this function. This, however, is a side effect of the referring expression losing its original meaning, rather

than an effect of a non-default treatment of the modifying or predicating expressions in themselves.

In this scenario, contrary to traditional assumptions (see e.g. Hopper and Thompson 1984 and 1985, Langacker 1987 and 1991, Croft 1991 and 2001), the use of nominalizers cannot be regarded as a way to signal that particular expressions are being treated in a non-default way. Nominalizers develop from elements that are originally used in their standard function, that is, as referring expressions, and are there because their meaning ('person', 'one', 'matter', 'place' and the like) provides a specific contribution to the overall meaning of the construction. These elements survive in the construction even when their meaning is not transparent any more, at which stage they function as semantically generic morphemes that identify the construction, that is, nominalizers. This development, however, is a result of a process of semantic bleaching and grammaticalization, rather than the fact that speakers make a conceptual distinction between the default and non-default uses of particular expressions and signal this distinction through special morphology⁵.

Other structural properties of nominalizations also need not be a result of a non-default treatment of particular expressions. For example, absence of categorial distinctions typically associated with predication, such as TAM distinctions, is often assumed to originate from the fact that particular expressions are used for reference rather than predication (Hopper and Thompson 1984: 737-8, among others). In the

⁵In such cases, the fact that elements denoting processes or states are used in modifying function in the source construction can be regarded as a non-default use of these elements, because they are usually used for predication (see Deutscher 2009 for similar remarks). This, however, is irrelevant to the issue of the function of nominalizers. The construction does not originally involve any nominalizers, and when the referring expression evolves into a nominalizer, the latter does not signal modification anyway.

source construction, however, these expressions are actually used for predication or modification, not reference, and alternative explanations are sometimes available for the absence of particular categorial distinctions in the resulting nominalization. For example, in constructions of the type of the Lhasa Tibetan one in (4) or the Supyire one in (7d), absence of TAM distinctions directly follows from the fact that the relevant expressions do not describe a specific occurrence of some state of affairs, but are rather used to present the entity denoted by the referring expression as an instance of a particular type ('the matter of asking' as opposed to some other matter, rather than a specific instance of an asking event; 'a place for lying down' as opposed to some other type of place, rather than a place where somebody lies down on some specific occasion). Of course, this type of explanation is related to the specific properties of particular source constructions that give rise to the nominalization, so it may or may not be applicable to different nominalization types, and should be tested against actual diachronic data about the origins of the relevant constructions. The general point is, however, that, if particular nominalizations originally consist of the combination of a referring expression and a modifying or predicating expression, absence of particular categorial distinctions cannot be explained in terms of an a priori assumption that the modifying or predicating expression is exceptionally being used for reference. Rather, this phenomenon should be investigated in light of what specific categorial distinctions are missing in the nominalization, and the original structure and semantics of the source construction.

Similar observations apply to another distinguishing property of nominalizations, the fact that expressions denoting processes, states or properties display mor-

phology typically associated with ones denoting things, persons or places (such as case or gender markers, determiners, or possessive marking on arguments). This is generally taken as a result of the fact that the former expressions are being assimilated to the latter, possibly, as assumed in functionally oriented approaches, because they exceptionally encode the same type of conceptual construals or are exceptionally being used for the same discourse function (reference). Nominalizers, however, are derived from expressions denoting things, persons or places, so it is possible that the presence of the relevant morphology in the nominalization is originally due to the presence of these expressions, rather than some non-default treatment of expressions denoting processes, states of properties (in fact, as mentioned earlier, these expressions are not used in referring function in the source construction). For example, in the Qiang construction in (6), the definite classifier could originally have applied to the element *mi* ‘person’ that provided the source for the nominalizer. In the Pima Bajo sentence in (9), the nominalizer evolved from a demonstrative, and the A argument in the relative clause is indexed through possessive morphology. The use of this morphology could be due to the fact that the entity denoted by the demonstrative was originally possessed by the notional A argument of the construction, that is, ‘the woman, my seen one’, as has been proposed for similar structures in other languages, e.g. several Cariban languages (Gildea 1998) and West Greenlandic (Fortescue 1995).

Another case in point is provided by the Mojave relative clause construction illustrated in (10).

Mojave (Hokan)

- (10) *hatčoq* [*ʔ-u:ta:v-nʸ-č*]_{NMLZ} *ənʸəʔi:lʸ-pč*
 dog 1-hit-DEM-SUBJ black-TNS
 ‘The dog I hit is black.’ (Munro 1976: 194)

In this construction, the lexical head of the nominalized relative clause is case-marked according to its role in this clause, while the verb in the relative clause carries a demonstrative affix followed by a case marker that indexes the role of the head in the main clause. For example, in (10), ‘dog’ is zero marked because it is the P argument of the relative clause verb, while this verb carries the subject case marker because ‘dog’ occurs as an S argument in the main clause. Given the SOV structure of the language, this construction could in principle have evolved from one of the type ‘dog I hit, that one is black’ (for ‘I hit the dog, that one is black’), where the demonstrative occurs in what becomes the main clause in the relative clause construction and is case-marked according to its role in this clause. The nominalization could be a result of the demonstrative combining with the preceding verb, in which case the case marking on the nominalized verb would be the one originally applying to the demonstrative⁶.

This type of explanation too may or may not actually apply to different nominalizations, including the cases just discussed. In particular, individual properties (for example, the markers used for particular arguments) may or may not be actually

⁶While this possibility is not discussed in the literature on Mojave and related languages displaying similar relative clause constructions (see, for example, Langdon 1970, Gorbet 1976, or Miller 2001), this process is similar to the one postulated by Estrada-Fernandéz (2008, 2012) for Pima Bajo. A similar process is also reconstructed by Heine and Reh 1984 for the Niger-Congo language Ewe. In this language, sentences involving relative clauses involve two distinct relative clause markers, e.g. ‘Woman REL came yesterday REL is no longer here’ for ‘The woman who came yesterday is no longer here’. The two relative markers originated, respectively, from a postposed demonstrative and a definite article in a construction of the type ‘Woman that, the yesterday having come one, is no longer here’ (for ‘that woman, the one who came yesterday, is no longer here’). While the resulting construction is not regarded as a nominalization by Heine and Reh, this process resembles the ones described here for Pima Bajo and Mojave in that the relative clause originates from the combination of adjacent elements originally belonging to different clauses.

compatible with the original structure of the source construction and the meaning of the element that gave rise to the nominalizer. Also, the relevant morphology can occur in the absence of nominalizers. For example, Trio, a Cariban language of Suriname, has various types of nominalizations where expressions denoting states or processes are directly combined with morphology normally associated with expressions denoting things, persons or places, including case affixes, plural marking, and possessive person markers (Carlin 2004: 351-61).

Trio (Cariban)

- (11) a. [*wewe-ton tuna-ton ihkëren-ma-ke*]_{NMLZ}
 tree-PL water-PL destroy-INCH.STAT-INSTR
 ‘because the trees and rivers are being destroyed’ (Carlin 2004: 353)
- b. [*president i-w-ëepi-se=to*]_{NMLZ} *n-a-i*
 president 3POSS-1TR-come-DESID=PL 3>3-be-NCERT
tî-pata-pona
 3POSS.COREF-village-DIR
 ‘They want the president to come to their village.’ (Carlin 2004: 499)

In such cases, the relevant morphology plausibly applied from the beginning to the expression denoting a state or a process. In line with traditional views of nominalization, then, its use should be assumed to be related to the function of this expression, rather than the presence of some other expression in the source construction. As long as the nominalization involves a nominalizer, however, the use of this morphology could in principle be related to the original presence of an expression denoting a person, a thing or a place, which later gave rise to the nominalizer. In general, then, this phenomenon cannot be accounted for in terms of an apriori assumption that some expression is being treated in a non-default way (in the sense of being assimilated to some other expression). Rather, this is an

issue that needs to be investigated on a case-by-case basis, in light of the specific properties of the relevant nominalization types (for example, presence vs. absence of nominalizers) and the properties of the source construction.

4 Diachrony and the structural diversity of nominalizations

Nominalizations display considerable structural diversity, both cross-linguistically and within individual languages. As the details are extensively discussed in the literature (Koptjevskaja-Tamm 1993, Malchukov 2004, Comrie and Thompson 2007, Cristofaro 2003 and 2007, Yap and Wrona 2011), only a few representative examples from languages of Latin America will be discussed here for illustrative purposes.

In general, some major parameters of structural variation are whether or not the nominalization is marked by a nominalizer, what categorial distinctions are encoded in the construction, presence vs. absence of different types of morphology usually associated with referring expressions, and the encoding of arguments (what arguments are encoded overtly, whether or not individual arguments are encoded in the same way as in non-nominalized constructions).

In Trio, for example, some nominalizations have no nominalizers, as in (11) above and (12a), while others display a variety of nominalizers, for example *-ne*, as in (12b). Argument roles are usually indicated through person indexation in the language. In constructions without nominalizers, however, notional A arguments are

not indexed, whereas P and S arguments are indexed by possessive person affixes, rather than the person affixes used in non-nominalized constructions. This can be seen from (12a), which also shows that A arguments can be encoded as goal NPs. As can be seen from (12b), on the other hand, nominalizations in *-ne* denote notional A arguments, and P arguments are indexed through possessive person affixes. Both nominalization types can take past tense markers (Carlin 2004: 351-69).

Trio (Carib)

- (12) a. [*ë-eta-se*]_{NMLZ} *w-a-e* *i-ja*
 2POSS-hear-DES 1>-be-CERT 3-GOAL
 ‘I want him to listen to you.’ (Carlin 2004: 356)
- b. *j-i-ponopi-rëken* [*j-ene-ne-npë-ton*]_{NMLZ}
 1-POSS-TR-tell-only 1POSS-see-NMZR-PAST-PL
 ‘The people who knew (saw) me told me.’ (Carlin 2004: 368)

In Apuriña, the arguments of nominalizations in *-inhi* are encoded in the same way as in non-nominalized constructions, as can be seen from the treatment of the first person argument in (13a) and (13b). The nominalization can take aspect markers, such as the progressive marker in (13a).

Apuriña (Arawakan)

- (13) a. [*aiko nota sa-nanu-t-inhi-mokaru*]_{NMLZ}
 house 1SG go-PROGR-VRBLZR-NMZR-GOAL
 ‘My being going to the house’⁷ (da Silva Facundes 2000: 608)
- b. **nota** *muteka*
 1SG run
 ‘I run’ (da Silva Facundes 2000: 247)

⁷The element glossed as ‘verbalizer’ is a formative that must be added to various bases in order for these bases to combine with several types of grammatical elements, including for example directional, causative, and progressive markers (da Silva Facundes 2000: 305-25).

In Huallaga (Huánaco) Quechua (Weber 1983, 1989), nominalizations in *-q* and *-sha-* are used in relative clauses. Nominalizations in *-q* can only be used to relativize A and S arguments, as in (14a), while nominalizations in *-sha-* can also be used to relativize other grammatical roles, for example P arguments, as in (14b). In the relative clause, the relativized arguments are not encoded overtly, while non-relativized arguments are marked for case in the same way as in non-nominalized constructions, but are indexed by possessive person prefixes. This can be seen from the accusative marker on the P argument ‘you’ in (14b) and the possessive person indexes for the A argument in (14a) and the P argument in (14b). While these two nominalizations types cannot encode tense, they are inflected for aspect, as can be seen from the imperfective marker in (14b).

Huallaga (Huánaco) Quechua (Quechuan)

- (14) a. *Runa [maqa-sha-yki]_{NMLZ} sha:-yka-mu-n*
 man hit-NMZR-2POSS come-IMPFV-afar-3
 ‘The man whom you hit is coming’ (Weber 1989: 281)
- b. *[Qam-ta maqa-shu-q]_{NMLZ} sha:-yka-mu-n runa*
 you-OBJ hit-2POSS-NMZR come-IMPFV-afar-3 man
 ‘The man who hit you is coming’ (Weber 1989: 281)

In Hixkaryana, nominalizations in *-nye* cannot have overtly encoded A or S arguments, while P arguments are indexed through possessor prefixes. Apart from person, none of the inflectional distinctions normally allowed to verbs in the language (tense, aspect, mood and voice) is encoded in the construction.

Hixkaryana (Carib)

- (15) *[r-ompamnohi-nye]_{NMLZ}*
 1POSS-teach-NMZR

‘The one who teaches me’ (Derbyshire 1979: 167)

Traditional views of nominalization in general, as outlined in section 2, provide no explanation for the structural diversity of different nominalization types. If particular structural properties of individual nominalizations are manifestations of some general phenomenon, namely some non-default treatment of particular expressions, then it is not clear why these properties should fail to consistently appear from one nominalization type to another, both cross-linguistically and within individual languages. For example, the idea that nominalizers are used to signal that particular expressions are used in a non-default function is weakened by the fact that many nominalizations do not display nominalizers, as shown by the Trio construction in (12b). Likewise, if absence of particular categorial distinctions or use of particular morphology reflect the fact that particular expressions are being treated as referring expressions, then one needs to account for why not all nominalizations display these particular properties, as shown by the Apuriña, Huallaga (Huánaco) Quechua and Hixkaryana constructions in (13)-(15).

Structural diversity is, however, expected in a diachronically oriented approach where the properties of individual nominalizations originate from properties of particular source constructions, rather than reflecting some general phenomenon. For example, nominalizers will be found in a nominalization if the source construction involves elements that grammaticalize into nominalizers, and they won’t be found if the source construction involves no such elements. Similarly, as detailed in section 3, absence of particular categorial distinctions or presence of morphology normally used for referring expressions may be a consequence of the properties of partic-

ular source constructions that give rise to the nominalization. These phenomena, then, need not manifest when the nominalization originates from a different source. While these hypotheses need to be investigated on a case-by-case basis, they point to a new research approach to nominalization, one in which the structural properties of individual nominalizations are assessed in the perspective of possible source constructions for that particular nominalization, rather than in the perspective of some more general phenomenon independent of these constructions.

5 Diachrony and the distribution of nominalizations

The use of nominalizations as opposed to non-nominalized constructions is not consistent cross-linguistically. From one language to another, the same contexts may or may not allow the use of nominalizations in apparently arbitrary fashion.

A typical environment for nominalizations are, for example, complement clauses (Cristofaro 2003, Noonan 2007, among others). In many languages, however, the use of nominalizations is limited to complements of particular types of main predicates, and these are not the same from one language to another. This can be observed, once again, in several languages of Latin America. In Mosetén, for example, nominalizations are used in complements of manipulative predicates, that is, predicates describing a process of causation or attempted causation ('make', 'ask to', 'order' and the like), as can be seen from (16a) below. However, 'finish' verbs, illustrated in (16b), take non-nominalized complements.

Mosetén (Mosetean)

- (16) a. *Yäe ködye-yë [sob-a-k-dye' öi-yä' phen]_{NMLZ}*
 1SG beg-1SG/2SG visit-VM-AP-NMZR F-L.F-AD woman
 'I beg you to visit this woman.' (Sakel 2004: 432)
- b. *Äej-ä-i phe-ya-ki jike*
 stop-VM-M.SUBJ talk-VM-AP.M.SUBJ PAST
ya-ksi aj phi-ke-dye-si' ...
 say-3PL.O.M.SUBJ yet run-VM-BEN-L.F
 'When they had finished to talk he said to them concerning the race ...'
 (Sakel 2004: 431)

Pilagá displays the opposite pattern, that is, manipulative verbs cannot take nominalized complements, ((17a)), but 'finish' verbs can ((17b)).

Pilagá (Guaykuruan)

- (17) a. *hayem se-na(t)-pega da' t'-ont-añan*
 1SG 1-say-ASP COMP 3-work-VD
 'I asked (him) to work.' (Vidal 2001: 359)
- b. *soñote [y-imat di' l-onta-nañak]_{NMLZ}*
 before 3-finish CL 3POSS-work-NMZR
 'He finished his work.' (Vidal 2001: 356)

Individual languages also often use different nominalizations in different contexts. For example, as can be seen from the sentences in (14) above, Huallaga (Huánaco) Quechua uses different nominalizations in different types of relative clauses: nominalizations in *-sha* are usually used to relativize items other than A and S arguments, while these arguments are relativized through nominalizations in *-q*. A similar situation is found with complement clauses. As illustrated in (18), nominalizations in *-sha* are also used in complements of utterance verbs, while complements of perception verbs require nominalizations in *-q*.

Huallaga (Huánaco) Quechua

- (18) a. *Chawra maman-shi willapaq wamran-ta*
 then his:mother-REPORT she:tells:him her:son-DAT
[marka-chaw tiya-sha-n-ta]_{NMLZ}
 town-LOC live-NMZR-3POSS-ACC
 ‘Then his mother told her son that she had lived in a town’ (Weber
 1983: 89)
- b. *muskishkaa [kamcha-ta rupa-yka-q-ta]_{NMLZ}*
 I:smelled toasted.corn-ACC burn-IMPV-NMZR-ACC
 ‘I smelled that the corn was burning’ (Weber 1983: 95)

These distributional patterns are not accounted for by traditional views of nominalization. In these views, nominalization reflects the fact that particular expressions are assimilated to other expressions, possibly because they are exceptionally used for reference. In principle, one would expect this phenomenon to be triggered by particular properties of the contexts of use of the relevant expressions, for example properties leading to these expressions being used for reference rather than predication or modification. In this case, however, it is not clear why nominalization is not consistently attested across the same range of contexts cross-linguistically. Also, if particular structural properties of nominalizations are motivated by a non-default treatment of particular expressions, then, to the extent that particular contexts lead to this treatment, it is not clear why those contexts should not allow any nominalization displaying the relevant structural properties. For example, in classical definitions of complement clauses (Noonan 2007, among others), these are clauses functioning as arguments of a main predicate, hence they can be assumed to be performing a referring, rather than a predicating function. In traditional views, this provides a motivation for the use of nominalizations in these clauses. In this case, however, it is not clear why this use should be limited to particular comple-

ment clause types in some languages, nor why these should vary arbitrarily from one language to another. On a similar note, if nominalizers are used to signal a non-default treatment of particular expressions, as traditionally assumed, then any nominalizer will perform this function, so it is not clear why particular contexts should not allow the use of particular nominalizers as opposed to others.

These issues, however, can be at least partly accounted for by looking at the available diachronic evidence about the origins of nominalizations. While this evidence may not make it possible to shed light on specific individual cases (such as the ones described above), it shows that whether or not particular nominalizations can be used in particular contexts is related to the original meaning of the source construction.

This is illustrated in (19) for Qiang. In this language, the nominalizer *-m*, derived from the noun *mi* ‘person’ and discussed in regard to example (6) above, is used to relativize subjects and recipients. Locations, on the other hand, are relativized through constructions involving a different nominalizer, *-s*, derived from a noun meaning ‘place’ or ‘earth’ (LaPolla and Huang 1996: 223-9).

Qiang (Sino-Tibetan)

- (19) a. *upu* [tʃi-ʃhə-topu-**m**-le:]_{NMLZ} tʃəu-la zɿ
 uncle wine-drink-like/love-NMZR-DEF.CL home-LOC exist
 ‘The uncle who likes drinking liquor is at home’ (LaPolla 2003: 228)
- b. [qa-wu-panə-dele-**m**]_{NMLZ} mi
 1SG-AGT-thing-give-NMZR person
 ‘The person to whom I gave something’ (LaPolla and Huang 1996: 227)
- c. [qa-lu-**s**-ta]_{NMLZ}
 1SG-come-place-NMZR-LOC

‘The place that I came from’ (LaPolla and Huang 1996: 224)

As repeatedly pointed out in the literature (DeLancey 1986 and 1999, LaPolla and Huang 1996, Noonan 1997, Gildea 1998, Givón 2012, among others), a possible source for nominalized relative clauses are constructions where the lexical items that ultimately give rise to the nominalizer occur themselves as heads of a relative clause, e.g. ‘The person who likes drinking liquor’, ‘The place that I came from’⁸. In the relative clause, the role of these elements will plausibly be related to their meaning, for example, nouns meaning ‘person’ will occur as agents or recipients in the relative clause, and nouns meaning ‘place’ will occur as locations. This will give rise to restrictions in the distribution of the resulting nominalizers across different types of relative clauses, in the sense that nominalizers arising from items normally occurring in particular roles in the relative clause will be restricted to those roles, at least initially.

In other cases, while particular uses of a nominalizer do not directly reflect its original meaning, they are plausibly derived from this meaning through processes of context-driven inference, as described in grammaticalization studies and studies of language change in general (Heine 2003, Traugott and Dasher 2005, among many others). In Qiang, for example, the nominalizer *-sa* is also used to relativize instruments, as in (20).

(20) Qiang (Sino-Tibetan)

⁸Nominalized relative clauses arise from these constructions as the relevant lexical items evolve into nominalizers and the construction as a whole is used in apposition to other nouns, leading to new relative clause constructions where these nouns function as heads. Constructions such as the ones in (19a-b), for example, would originally have been, literally, ‘the uncle, the person who likes drinking liquor’ and ‘the person to whom I gave something, the person’ (DeLancey 1999, LaPolla and Huang 1996, Noonan 1997, Givón 2012).

- a. *[laupin-tshopu-s]_{NMLZ} səpe*
 tuberculosis-treat-NMZR medicine
 ‘Medicine used to treat tuberculosis’ (LaPolla and Huang 1996: 226)
- b. *[stua-ha-ɛcə-s]_{NMLZ} tɕuats*
 food-eat-NMZR table
 ‘The table used for eating food’ (LaPolla and Huang 1996: 226)

While no direct connection can be established between the notion of instrument and the original locative meaning of the nominalizer, some contexts are compatible with both, for example, in (20b) a table used for eating food is actually a table where food is eaten. Such contexts, then, may have determined the extension of the nominalization from the relativization of locations to that of instruments.

In Supyire, as mentioned in regard to example (7) above, nominalizations in *ta-* are used to denote locations, in accordance with the locative origin of the nominalizer. In addition, they are also used in temporal and purpose clauses, as illustrated in (21).

Supyire (Niger-Congo)

- (21) a. *Uru u à pyi m̀i shyéré-ŋi [wyéré-ŋi*
 he(EMPH) he PERF be my witness-DEF money-DEF
tà-kan-gé e]_{NMLZ}
 LOC.NMZR-give-DEF at
 ‘It was he who was my witness when the money was given’ (Carlson 1994: 111)
- c. *Canj kà m̀i máha ŋ-kare dú-gé e [fàa*
 day IND I PAST IP-go stream-DEF to fish
tá-cya-ge e]_{NMLZ}
 LOC.NMZR-see-G2.SG to
 ‘One day I went to the stream to catch fish.’ (Carlson 1994: 111)

While temporal and purpose clauses do not specifically involve the notion of location, the use of the nominalization in these clauses may have developed in con-

texts involving this notion. If the nominalization denotes the place of an action, then speakers may infer that that it refers to the time of this action, that is, expressions of the type ‘At the place where X takes place’ can be reinterpreted as ‘When X takes place’, as in (7b). Motion towards the place of an action can be reinterpreted as motion in order to perform that action, that is, ‘To the place where X takes place’ is reinterpreted as ‘To achieve X’, as in (7c). These are in fact instances of a well-known grammaticalization process whereby spatial expressions develop new, more abstract meanings through processes of context-induced inference (Heine, Claudi, and Hünnemeyer 1991, among several others).

Old Chinese has a nominalizer *zhe* derived from a semantically generic noun that originally conveyed various meanings related to individuation, e.g. ‘the one that’, ‘people/items possessing a certain feature’. Nominalizations in *zhe* can be used in contexts relatively consistent with these meanings, such as relative clauses, as well as contexts apparently unrelated to the notion of individuation, such as conditional clauses. The latter use is likely to have developed from the relative clause use through processes of inference in contexts such as the one in (22), which are compatible both with a relative clause interpretation and a conditional interpretation (Yap and Wang 2011).

Old Chinese (Sino-Tibetan)

- (22) *[shun zhe]_{NMLZ} cuo zhi*
obey NMZR leave him/them
‘Those who obeyed/ If anyone obeyed, (he) left them alone.’ (Xun Zi: Yap and Wang 2011: 74)

Epps (2009) describes a similar process for Hup. In this language, nominaliza-

tions in *-Vp* (where *V* is a vowel copying the vowel of the preceding syllable) can be used as relative clauses and to convey a variety of adverbial meanings. Epps (2009) submits that the relative clause use is the original one. This use could be related to the original function of the nominalizer, as there is some evidence that the latter might have evolved from a topic marker, and several languages display formal parallels between relativization and topicalization. The adverbial clause use originated through the reanalysis of relative clauses lending themselves to an adverbial interpretation, of the type in (23).

Hup (Nadahup)

- (23) [*ʔám=yiʔ key-níh-ĩp*]_{NMLZ} *ʔǎn* *b'ýt-an*
 2SG=TEL see-be.like-NMZR 1SG.OBJ manioc.field-DIR
widway-ʔý-áh
 arrive.go.out-VENT-DECL
 ‘Someone who looked like you/ Looking like you, (he) came to me in the manioc field.’ (Epps 2009: 299)

Diachronic evidence also shows that the contexts that do not allow the use of particular nominalizers are ones incompatible with, or less directly related to the original semantics of the nominalizer. As shown by examples (24) and (25) below, for example, the Qiang nominalizer *-s* and the Supyire nominalizer *ta-* are not used in complements of ‘want’ verbs (in the two languages, these complements are not nominalized).

Qiang (Sino-Tibetan)

- (24) *the: tɕəu kə ɕtɕaq-lu*
 3SG home go heart-come
 ‘She wants to go home’ (LaPolla and Huang 1996: 230)

Supyire (Niger-Congo)

- (25) *Miù lá mpyi u ú 'ŋ-káré*
my desire was he SUBJNCT IP-go
'I wanted him to go.' (Carlson 1994: 430)

In both of these cases, the meaning of the sentence is relatively incompatible with the original locative meaning of the two nominalizers, as witnessed by the oddity of sentences such as 'She wanted the place where she goes' or 'I wanted the place where he goes' (as opposed, for example, to (7b), 'He was my witness when/at the place where the money was given').

The facts just described provide a natural diachronic explanation for the distribution of particular nominalizations across different context, and suggest that this distribution may not be related to some non-default treatment of particular expressions. Rather, individual nominalizations will be used in contexts more directly related to the meaning of the source construction, and will not be used in contexts unrelated, or less directly related to this meaning. This is in accordance with classical assumptions in grammaticalization studies and historical linguistics in general, particularly the idea that the distribution of individual constructions is at least partly determined by their original meaning (see e.g. the notion of persistence proposed in Hopper and Traugott 2003).

Languages also display a number of cases where the distribution of some nominalization is in contrast with, or cannot be clearly related to the semantics of the source. In Classical Tibetan, for example, nominalizations marked by the nominalizer *-rgyu* can be used to refer to humans despite that the nominalizer is derived from a noun meaning 'substance, matter', as mentioned in regard to (3) above. This is illustrated in (26).

Classical Tibetan (Sino-Tibetan)

- (26) *bla-ma [oū-rgyu]_{NMLZ}*
 lama come-NMZR
 ‘the lama to come’ (Beyer 1992: 296)

In several languages, nominalizers derived from locative expressions can be used to relativize not only locations, but also apparently unrelated grammatical roles, namely P arguments. This is the case with the Qiang nominalizer *-s*, as well as the Middle Chinese nominalizer *suo*, derived from a noun meaning ‘place’.

Qiang (Sino-Tibetan)

- (27) *[tɕile-(ŋuəŋi) pə-s]_{NMLZ} pies ŋuə*
 1PL-TOP buy-NMZR meat COP
 ‘What we need (to buy) is meat.’ (LaPolla and Huang 1996: 234)

Middle Chinese

- (28) *[min zhi suo shi]_{NMLZ} da di dou fan huo geng*
 people GEN NMZR eat basically beans cuisine beans soup
 ‘What people eat is basically cuisine and soup made of beans.’ (Zhan Guo Ce: Yap and Wang 2011: 83)

While in such cases the semantics of the source does not seem to provide an explanation for particular uses of the nominalization, this does not rule out that there could still be a link between the two that is not immediately apparent, for example through analogy or processes of context-induced inference of the type of those described for (20)-(23) above. These cases, then, do not invalidate the idea that the original meaning of a nominalization plays a key role in shaping its distribution. Rather, they point to the need for further research on the often highly particularized factors that may lead to particular nominalizations being extended from one context to another.

6 Concluding remarks

The available diachronic evidence about the development of nominalizations cross-linguistically poses some major challenges for traditional assumptions about nominalization in general. At least some nominalizations do not originate as special constructions used when particular expressions are being assimilated to others. Rather, they develop as some referring expression in the source construction loses its specific meaning, so that the properties of this expression are transferred onto the construction as a whole. This implies that particular distinguishing properties of the nominalization may be a result of the original structure of the source construction, rather than some special treatment of particular expressions. This, however, need not be the case for all of the constructions that can be regarded as instances of nominalization under traditional criteria. This suggests that these criteria do not actually capture a unified phenomenon. Rather, they identify a series of constructions that originate through different mechanisms and may be motivated in terms of different principles. This provides an explanation for the structural diversity of nominalizations, as well as the variation in their cross-linguistic distribution across different contexts.

All this has significant implication for research on nominalization in individual languages. This research usually focuses on the structural synchronic properties of particular nominalizations, and sometimes the status of the nominalization in terms of part of speech distinctions, for example to what extent the construction can be regarded as an instance of a noun. Most analyses, however, do not deal with issues such as why the nominalization displays particular structural properties as opposed

to others, or why it is used in particular contexts as opposed to others. This is the case with most existing treatments of nominalizations in the languages of Latin America, even comprehensive ones such as Weber 1983 for Huallaga (Huánaco) Quechua or da Silva Facundes 2000 for Apuriña.

In order to gain a full understanding of nominalization phenomena, then, it is essential for new research on this topic, particularly research on less described languages, to concentrate on the possible sources of individual nominalization types, as well as the specific diachronic processes that trigger the extension of particular nominalizations from one context to another. This can provide crucial clues as to why the nominalization displays particular structural properties, for example why it is or is not marked by nominalizers, why particular arguments are encoded as possessors, or presence vs. absence of particular inflectional distinctions. The contexts of occurrence of individual nominalizations also often form a complex network best understood in diachronic perspective.

While direct diachronic information on these issues may be difficult to obtain, significant progress can be made through internal reconstruction, intragenetic comparison, or simply by making hypotheses about possible connections between the various uses of a nominalized clause, much in the vein of works such as Epps 2009 or Yap and Wang 2011. As also discussed in Cristofaro 2012, this type of research has a bearing not only on nominalization phenomena in themselves, but also on a number of more general issues such as why speakers use different constructions in different types of subordinate clauses, the origins of non-finite verb forms, and what evidence do we actually have for prototype models of parts of speech and

grammatical categories in general.

Abbreviations

		DEM	demonstrative	NARR	narrative
>	acting on	DES	desiderative	NCERT	non-certainty
1TR	one-argument transitive verb	DET	determiner	NMLZ	nominalization
		DIR	directional	NMZR	nominalizer
ACC	accusative	DISJ	disjunctive	NONSUBJ	non-subject
AD	adessive	EMPH	emphatic	PAST	past
AGT	agentive marker	F	feminine	POSS	possessive
AP	antipassive	FOC	focus	REL	relative
ASP	aspect	G2	gender2	REPORT	reportative
AUX	auxiliary	G3	gender 3	SUBJ	subject
BEN	benefactive	GEN	genitive	SUBJUNCT	subjunctive
CERT	certainty	GOAL	goal	TEL	telic
CL	classifier	INCH.STAT	inchoative stative	TNS	tense
CL	classifier	IND	indicative	TOP	topic
COMP	complementizer	INSTR	instrumental	TRANS	transitive
CONTIN	continuing	IP	intransitive verb prefix	VD	valency derivation
COP	copula	L	linker	VENT	venitive
DAT	dative	LOC	locative	VM	verbal marker
DECL	declarative	M	masculine	VRBLZR	verbalizer
DEF	definite				

References

- Beyer, Stephan V. .1992. *The Classical Tibetan language*. Albany: State University of New York Press.
- Carlin, Eithne B. 2004. *A Grammar of Trio, a Cariban Language of Suriname*. Frankfurt am Main: Peter Lang.
- Carlson, Robert. 1994. *A Grammar of Supyire*. Berlin and New York: Mouton de Gruyter.
- Chamoreau, Claudine & Estrada-Fernández, Zarina (eds). 2016. *Finiteness and Nominalization*. Amsterdam and Philadelphia: John Benjamins.
- Comrie, Bernard & Estrada-Fernández, Zarina (eds). 2012. *Relative clauses in the languages of the Americas*. Amsterdam and Philadelphia: John Benjamins.
- Comrie, Bernard & Thompson, Sandra A. 2007. Lexical nominalization. In *Language Typology and Syntactic Description. 2nd Edition, Volume 3: Grammatical Categories and the Lexicon*, Timothy Shopen (ed.), 334–81. Cambridge: Cambridge University Press.
- Cristofaro, Sonia. 2003. *Subordination*. Oxford: Oxford University Press.
- Cristofaro, Sonia. 2007. Deconstructing categories: Finiteness in a functional-typological perspective. In *Finiteness: all over the clause*. Irina Nikolaeva (ed.), 91–114, Oxford: Oxford University Press.
- Cristofaro, Sonia. 2012. Cognitive explanations, distributional evidence, and diachrony. *Studies in Language* 36, 645–70.

- Cristofaro, Sonia. 2016. Routes to Insubordination: a Cross-Linguistic Perspective. In *Insubordination*, Nicholas R. Evans & Honoré Watanabe (eds), 393–422. Amsterdam: John Benjamins.
- Croft, William. 1991. *Syntactic Categories and Grammatical Relations*. Chicago and London: The University of Chicago Press.
- Croft, William. 2001. *Radical Construction Grammar*. Oxford: Oxford University Press.
- da Silva Facundes, Sidney. 2000. The Language of the Apurinã People of Brazil (Maipure/Arawak). Ph.D. dissertation, State University of New York, Buffalo.
- DeLancey, Scott. 1986. *Relativization as nominalization in Tibetan and Newari*. Ms, University of Oregon. <<http://tibetoburman.net/nominalizationworkshop.html>>
- DeLancey, Scott. 1999. Relativization in Tibetan. In *Topics in Nepalese Linguistics*, Yogendra P. Yadava & Warren W. Glover (eds), 231–49. Kathmandu: Royal Nepal Academy.
- DeLancey, Scott. 2003. Lhasa Tibetan. In *The Sino-Tibetan Languages*, Graham Thurgood & Randy J. LaPolla (eds), 270–88. Routledge.
- Derbyshire, Desmond C. 1979. *Hixkaryana*. *Lingua Descriptive Studies*. Amsterdam: North Holland.
- Deutscher, Guy. 2009. Nominalization and the evolution of subordination. In *Syntactic Complexity*, Talmy Givón & Masayoshi Shibatani (eds), 199–214.

-
- Amsterdam and Philadelphia: John Benjamins.
- Epps, Patience. 2008. *A Grammar of Hup*. Berlin and New York: Mouton de Gruyter.
- Epps, Patience. 2009. Escape from the noun phrase: From relative clause to converb and beyond in an Amazonian language. *Diachronica* 26, 287–318.
- Estrada-Fernández, Zarina. 2008. Cláusolas relativas en pima bajo. *Línguas Indígenas Americanas* 8, 69–83.
- Estrada-Fernández, Zarina. 2012. From demonstrative to relative marker to clause linker: Relative clause formation in Pima Bajo. In *Relative clauses in the languages of the Americas*, Bernard Comrie & Zarina Estrada-Fernández (eds), 127–46. Amsterdam and Philadelphia: John Benjamins.
- Evans, N. (2007). Insubordination and its uses. In *Finiteness: all over the clause*, Irina Nikolaeva (ed.), 366–431. Oxford: Oxford University Press.
- Fortescue, Michael. 1995. The historical source and typological position of ergativity in Eskimo languages. *Etudes/Inuit/Studies* 19, 61–75.
- Gildea, S. (1998). *On reconstructing grammar: Comparative Cariban morphosyntax*. Oxford: Oxford University Press.
- Givón, Talmy. 2012. Towards a diachronic typology of relative clause. In *Relative clauses in the languages of the Americas*, Bernard Comrie and Zarina Estrada-Fernández (eds), 1–26. Amsterdam and Philadelphia: John Benjamins.
- Gorbet, Larry P. 1976. *A Grammar of Diegueño Nominals*. New York: Garland.

- Heine, Bernd. 2003. Grammaticalization. In *The Handbook of Historical Linguistics*, Brian D. Joseph and Richard D. Janda (eds), 576–601. Oxford: Blackwell.
- Heine, Bernd, Claudi, Ulrike & Hünemeyer, Friederike. 1991. *Grammaticalization*. Chicago: University of Chicago Press.
- Heine, Bernd & Kuteva, Tania. 2007. *The genesis of grammar : a reconstruction*. Oxford: Oxford University Press.
- Heine, Bernd & Reh, Mechtild. 1984. *Grammaticalization and reanalysis in African languages*. Hamburg: Helmut Buske.
- Hengeveld, Kees. 1992. *Non-verbal predication*. Berlin and New York: Mouton de Gruyter.
- Herring, Susan C. 1991. Nominalization, relativization, and attribution in Lotha, Angami, and Burmese. *Linguistics of the Tibeto-Burman Area* 14, 55–72.
- Hopper, Paul. J. & Thompson, Sandra A. 1984. The discourse basis for lexical categories in universal grammar. *Language* 60, 703–52.
- Hopper, Paul. J. & Thompson, Sandra A. 1985. The iconicity of the universal categories noun and verb. In *Iconicity in Syntax*, John Haiman (ed.), 151–83. Amsterdam and Philadelphia: John Benjamins.
- Hopper, Paul. J. & Traugott, Elizabeth C. 2003. *Grammaticalization*. 2nd edition. Cambridge: Cambridge University Press.
- Koptjevskaja-Tamm, Marja. 1993. *Nominalizations*. London and New York: Routledge.

-
- Langacker, Ronald W. 1987. Nouns and verbs. *Language* 63, 53–94.
- Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar. Vol. II: Descriptive Applications*. Stanford: Stanford University Press.
- Langdon, Margaret. 1970. *A Grammar of Diegueño. The Mesa Grande Dialect*. University of California Publications in Linguistics 66. Berkeley and Los Angeles: University of California Press.
- LaPolla, Randy J. 2003. Qiang. In *The Sino-Tibetan Languages*, Graham Thurgood & Randy J. LaPolla (eds), 573–87. Routledge.
- LaPolla, Randy J. & Huang, Chenglong. 1996. *A Grammar of Qiang*. Berlin and New York: Mouton de Gruyter.
- Malchukov, Andrej. 2004. *Nominalization/verbalization: Constraining a typology of transcategorial operations*. München and Newcastle: Lincom Europa.
- Miller, Amy. 2001. *A Grammar of Jamul Tiipay*. Berlin and New York: Mouton de Gruyter.
- Mithun, Marianne. 2008. The extension of dependency beyond the sentence. *Language* 83, 69–119.
- Moore, Denny. 1989. Gavião Nominalizations as Relative Clauses and Sentential Complements Equivalents. *International Journal of American Linguistics* 55, 309–25.
- Munro, Pamela. 1976. *Mojave Syntax*. New York: Garland.
- Noonan, Michael. 1997. Versatile Nominalizations. In *Essays in language function and language type*, Bybee, Joan, Haiman, John & Thompson, Sandra A.

- (eds), 373–94. Amsterdam: John Benjamins.
- Noonan, Michael. 2007. Complementation. In *Language Typology and Syntactic Description. 2nd Edition, Volume 2: Complex constructions*, Timothy Shopen (ed.), 52–150. Cambridge: Cambridge University Press.
- Sakel, Jeannette. 2004. *A Grammar of Mosestén*. Berlin and New York: Mouton de Gruyter.
- Shibatani, Masayoshi & bin Makhshen, Khaled A. 2009. Nominalization in Soqotri, a South Arabian language of Yemen. In *Endangered languages: Contributions to Morphology and Morpho-syntax*, Wetzels, W. Leo (ed), 9–31. Leiden: Brill.
- Traugott, Elizabeth C. & Dasher, Richard B. 2005. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.
- van Gijn, Rik, Haude, Katharina & Muysken, Pieter (eds). 2011. *Subordination in Native South American Languages*. John Benjamins.
- Vidal, Alejandra. 2001. Pilagá Grammar. Ph.D. dissertation, University of Oregon.
- Weber, David J. 1983. *Relativization and nominalized clauses in Huallaga (Huánaco) Quechua*. University of California Publications in Linguistics 103. Berkeley and Los Angeles and London: University of California Press.
- Weber, David J. 1989. *A Grammar of Huallaga (Huánaco) Quechua*. University of California Publications in Linguistics 112. Berkeley and Los Angeles and London: University of California Press.

Yap, Foong Ha & Wang, Jiao. 2011. From light noun to nominalizer and more:

The grammaticalization of *zhe* and *suo* in Old and Middle Chinese. In *Nominalization in Asian Languages: Diachronic and typological perspectives*, Yap, Foong-Ha, Grunow-Hårsta, Karen & Wrona, Janick (eds), 61–108. Amsterdam and Philadelphia: John Benjamins.

Yap, Foong Ha, Grunow-Hårsta, Karen & Wrona, Janick. 2011. Introduc-

tion. Nominalization strategies in Asian languages. In *Nominalization in Asian Languages: Diachronic and typological perspectives*, Yap, Foong-Ha, Grunow-Hårsta, Karen & Wrona, Janick (eds), 1–57. Amsterdam and Philadelphia: John Benjamins.