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Conceptually-driven analogy in the grammaticalization of Spanish binominal quantifiers

Abstract: In the long-running and framework-independent discussion among historical linguists on the dominant mechanism in grammaticalization, viz. “re-analysis” or “analogy”, recent case studies (De Smet 2009, 2012, forthcoming; Fischer 2007, 2008, 2012) have proposed in favor of analogy that syntagmatic associations often precede and to some extent trigger structural reanalysis. This article supports analogical thinking in both the grammaticalization (diachrony) and functional organization (synchrony) of binominal quantifiers in Spanish (e.g., *un montón de gente* ‘a lot of people’). The corpus-based analysis starts off from the “hybrid” status of quantifying nouns (e.g., *montón* ‘heap, lot’), as they continue to exploit typical noun features in functional uses. The variation in the co-selection patterns is shown to arise from the complex interaction between (conceptual) persistence, analogy and discourse integration. In addition to providing additional evidence for the prevalence and driving force of syntagmatic associations over paradigmatic pressure, the paper characterizes conceptually driven analogy as a two-way discourse phenomenon and zooms in on the reasons for some grammaticalization processes to remain (at least temporarily) “on hold.”

Keywords: syntagmatic analogy, binominal quantifiers, coherence, constructional change, isotopy

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1 Introduction

The aim is to illustrate the role conceptual persistence, analogy, discourse integration, and the interaction between them play in the grammaticalization of quantifying nouns in Spanish. Our study concerns the variety of readings that

can be expressed by nouns occupying the N1-slot in the quantifying construction of the type ‘*un N1 de N2*’, e.g., (1).

(1) a.	<i>una pila de años</i>	‘a lot (lit. pile) of years’
b.	<i>una brazada de libros</i>	‘a host (lit. armful) of books’
c.	<i>un montón de dinero</i>	‘a heap (lit. pile) of money’
d.	<i>un alud de críticas</i>	‘a lot (lit. avalanche) of criticisms’
e.	<i>un tropel de imágenes</i>	‘a jumble (lit. mob) of images’
f.	<i>un hatajo de oportunistas</i>	‘a bunch (lit. herd) of opportunists’

The concept of *quantifying noun* (QN) applies to nouns that display a quantitative potential next to the original lexical meaning.¹ They typically refer to containers (*brazada* ‘armful’), configurations (*montón* ‘pile’, *racimo* ‘grape’) or collective entities (*tropel* ‘mob, heap’). Even abstract concepts can give rise to quantifying nominals provided they allow for a scalar implicature via metonymic or metaphoric extension mechanisms (e.g., *barbaridad* ‘barbarity’).

1.1 Research topic

QNs can become genuine quantitative expressions when they enter the so-called pseudo-partitive construction². We prefer the notion of binominal quantifier (construction) (BQC) when the binominal syntagm consists of a determiner, generally the indefinite determiner, the QN (or N1) and a prepositional phrase introduced by *de* ‘of’ indicating the group of constituent entities (N2), e.g., *una braza-*

¹ This is not the case of the so-called *measure nouns* which by their very nature express quantity, such as *kilo* ‘kilo’, *litro* ‘liter’, etc. Abstract notions of quantity (*número* ‘number’, *cantidad* ‘quantity’), typical partition nouns (*mayoría* ‘majority’, *docena* ‘dozen’) or ‘bounding’ (Bosque 1999) nouns (*parte* ‘part’, *terron* ‘lump’, *rebanada* ‘slice’) have not been taken into account either. As these sets of nouns cannot participate in the semantic glides we are interested in and do not display scalar implicatures – but have a conventionalized quantifying reading instead – they were a priori excluded from the analysis.

² To avoid confusion, the notion of binominal quantifier (construction) is to be preferred to that of “(pseudo-)partitive construction” (Bosque and Demonte 1999: 338; RAE 2009: 823, 1448–1454), as the latter construction is primarily associated with abstract notions of quantity, e.g., *mitad* ‘half’, *docena* ‘dozen’, *metro* ‘meter’, *mayoría* ‘majority’, *gran parte* ‘great deal (lit. part)’, next to a few container units, such as *cucharada* ‘spoonful’ or *vaso* ‘glass’. In addition, Verveckken (2012b) has shown that the relation between both nominal elements is primarily one of “co-extensiveness” (i.e., the limiting case of partition) and that the binominal quantifier construction partially overlaps with the emphatic appositive or expressive binominal construction (Verhagen 2009) such as *una maravilla de professor* ‘a wonder of a professor’.

*da*_{N1} *de* *trajes*_{N2} ‘an armful of suits’, or the mass, e.g., *un montón*_{N1} *de* *dinero*_{N2} ‘a pile of money’, etc. These *binominal quantifiers* (BQ) constitute a non-canonical way of expressing quantification (Langacker 1991: 88–89) and are the object of the present paper.

The binominal syntagm is traditionally seen as the locus of grammaticalization processes (Koptjevskaja-Tamm 2009, Verveckken 2012b): within the binominal syntagm, the QN (or N1) that constitutes the head of the construction (*[una pila] [de libros]* ‘[a pile] [of books]’), gets reanalyzed as quantifying the mass denoted by N2 (*[una pila de] [años]* ‘[[a pile of] years]’). Our usage-based approach differs however from the general practice in the literature to focus on the quantifying interpretation, possibly accompanied by a (negative) evaluation of the speaker (Brems 2007a, 2007b, 2010; Langacker 2009; Traugott 2008a, 2008b; Trousdale 2010, see *infra* [Section 2]). In our view, a full account can only be arrived at (i) by examining the relation between three types of reading, viz., head, quantifier, and (two-way) specifier or quantifier-cum-modifier³ reading, (ii) by also leaving room for ambivalent uses, and (iii) by paying attention to the contextual activation of the evaluative potential of both functional uses.

1.2 “Conceptual” persistence, analogy and discourse integration

The matter is more intricate than may seem from the foregoing sketch, however. The broad interpretive latitude many BQs testify to in Present-Day Spanish reveals a tendency towards *conceptual persistence*. Our view on conceptual persistence is based on Hopper’s (1991) notion of lexical persistence and refers to the reflection of the grammaticalizing construction’s source semantics in its grammaticalized uses. Persistence will be approached as conceptual and gradual in nature and to a certain extent unpredictable. This suggests that the processes that unleash “quantitative” inferences are not reducible to the semantic bleaching and desemanticization that characterizes the classical grammaticalization processes as witnessed e.g., in the text book example of the grammaticalization

³ The distinction between three major readings will be justified in Section 2. As for now, it suffices to say that the denomination of the uses refers to the function of N1 within the binominal syntagm. In the case of the (*two-way*) *specifier* reading, however, the modifying relation is two-dimensional: on the one hand, N1 modifies N2, while, on the other hand, the binominal construction as a whole modifies a third entity X which is referred to in the immediate context. Further, it is important to note that the (*two-way*) *specifier* reading combines quantity and quality assessment.

chain by which movement verbs become tense and aspect markers (Bybee et al. 1991; Emanatian 1992; Traugott 1978; Ultan 1978). Given that lexical richness combines with a tendency to cluster in but a few domains (Verveckken 2012a), we formulate as working hypothesis that the grammaticalization processes the binominal quantifiers engage in are at the same time in progress and never ending, as they are both contextually driven and analogically motivated.

The latter assumption bring us to the other key terms used throughout this paper, viz. *analogy* and *discourse integration*. Analogy refers to the similarity a speaker perceives between two patterns. In historical linguistics, the mechanism of analogy is generally evoked to explain structural similarity between two paradigmatically related patterns. In the grammaticalization framework in particular, analogy is often contrasted with reanalysis, and researchers have become increasingly interested in determining the dominant mechanism of change. Although both those in favor of analogy and those in favor of reanalysis have proposed a convincing set of arguments, the case-study on binominal quantifiers makes us argue that (morpho)syntactic reanalysis is typically motivated by analogy. We will subscribe to the extended definition of analogy that also acknowledges semantic similarities and allows the similarity to hold between the environments syntagmatically related to the extending construction (De Smet 2013).

In our view, the discourse integration of linguistic elements forms part of the environment syntagmatically related to the construction in extension and should be incorporated in the usage-based view of analogy. Discourse integration refers to the precise contextual setting of the linguistic element, and echoes the cognitive assumption that “meaning is emergent” (Paradis 2011), i.e., that linguistic items get their final interpretation in context.

1.3 Methodology and structure of the paper

The data for the analysis were drawn from the online corpus *Corpus de referencia del español actual* (CREA) emanating from the *Real Academia Española*. For nine QNs – viz., *alud* ‘avalanche’, *aluvión* ‘flood’, *hatajo* ‘herd’, *letanía* ‘litany’, *mogollón* ‘lots, lit. mess’, *montón* ‘heap, pile’, *pila* ‘pile’, *racimo* ‘grape’ and *barbaridad* ‘barbarity’ – exhaustive or representative samples (spoken/written, formal/informal) were extracted. The (filtered)⁴ totals examined figure in Table 1.

⁴ The query used in order to retrieve all possible binominal uses is [QN *de*]. The preposition has been added for the sake of feasibility: the majority of the QNs have a productive use outside the binominal syntagm as well. It goes without saying that the query [QN *de*] yields lots of irrelevant examples such as *barbaridad de Juan* ‘the barbarity of (committed by) John’ (N2 is not a multi-

Table 1: Corpus of the present study: exhaustive or representative (*) samples extracted from CREA

	<i>alud</i>	<i>aluvión</i>	<i>barbaridad</i>	<i>hatajo</i>	<i>letanía</i>	<i>mogollón</i>	<i>montón</i>	<i>pila</i>	<i>racimo</i>
CREA	86	150	9	16	26	49	500*	80	48

We have only retained N1s that display a conventionalized quantifying reading and took into account representativeness in terms of the lexical fields involved⁵.

The structure of the paper is as follows. Section 2 will zoom in on the distinction between three major readings, viz. a literal and two functional ones. Section 3 will show that the case-study of Spanish BQs questions the grammaticalization process involved in view of the systematic tendency towards conceptual and formal persistence of the source construction. Section 4 goes further into the analogical thinking involved and highlights an additional level of similarities up until now ignored in the classical grammaticalization framework. The interaction between analogy and persistence will be shown to be the crucial factor in those cases of grammaticalization where the process seems to be – at least temporarily – on hold. We will hypothesize that, at least in the history of BQs, paradigmatic analogical motivations are always supported or triggered by syntagmatic associations, and that the discourse integration of linguistic elements should be incorporated in a usage-based view of analogy.

plex referent), *saber un montón de algo* ‘to know a lot of something’ (adverbial use of N1), *la pila de bautismo* ‘baptismal font’ (compound), etc.

5 Data analysis (see Verveckken 2012a) reveals that in Spanish the array of possible N1s is not only organized around such central concepts as containers (*flota* ‘fleet’), configurations (*ovillo* ‘ball’) or collections (*manada* ‘herd’); they are also drawn from lexical fields related to spectacular natural phenomena beyond human control (*aluvión* ‘flood’, *piélago* ‘ocean’, *arroyo* ‘stream’ etc.) and nominalizations denoting actions of ‘gathering’, ‘heaping’ or ‘spreading’ (*amontonamiento* ‘stack’ [from *amontonar* ‘to heap up’], *carga* ‘cargo, load’ [from *cargar* ‘to load, to charge’]). Further, abstract yet highly expressive nouns such as *barbaridad* ‘barbarity, atrocity’ are an additional productive source domain for QNs: *barbaridad* for instance rates extremely high on the scale of “badness”, which explains the invited inference of a large quantity.

2 Lexical and functional uses

The constructional semantics of the binominal pattern [(Det) N1 *de* N2] encompasses a fairly literal and two more functional uses (see Verveckken 2012a for a detailed description). The starting-point of the three-layered distinction of uses – or five-layered, when including the ambivalent uses – is Brems' (2007b, 2010) model of the English Size-Noun construction that distinguishes between the head, the quantifier, the valuing quantifier, the ambiguous and vague uses. Instead of two quantifier uses, we propose to distinguish a second functional use in addition to the pure quantifier use, which we dub (*two-way*) *specifier* use. This way, we acknowledge the evaluative potential of both functional uses, i.e., also of the so-called “pure” quantifier use.

In the head-uses, N1 activates the QN's literal meaning as a full content word, and is the semantic (or functional) as well as the syntactic head. The QN evokes a physical and concrete configuration, constellation, or group, while the prepositional phrase denotes the constituting entities. In (2)–(3), for instance, the QNs *montón* ‘heap’ and *racimo* ‘bunch’ evoke a heap-like or cluster-like configuration which, as a whole, is discernible to the human eye. The *de*-phrase specifies which type of heap or bunch the speaker refers to. The N2-entities are necessarily spatio-temporally contiguous.

- (2) *Imagina un reloj de arena que va acumulando granitos hasta formar una pequeña montaña. Llega un momento en que el **montón de** arena no aguanta más, y un solo grano es suficiente para que se forme una avalancha.*

‘Imagine an hourglass which accumulates grains of sand to the extent of forming a little mountain. There comes a moment at which the **heap of** sand can't stand any longer, and a single grain is enough to produce an avalanche.’

- (3) *Es bien conocida la anécdota con que se demuestra la perfección de un artista que pintó un **racimo de** uvas al que acudían los pájaros engañados por la exacta semejanza de lo pintado con lo vivo; (. . .).*

‘Well-known is the anecdote used to demonstrate the perfection of an artist having painted a **bunch of** grapes which fooled birds came to because of the exact similarity between the painted and the real; (. . .).’

The QN can also fulfill a quantifying function within the binominal syntagm. Via metaphorization, the number or size of the N2-entities is assessed by means of the conceptual image evoked by N1. Like in the case of relative quantifiers (Langacker 1991: 81), where the number of the profiled instance is assessed by implicit reference to a *reference mass*, quantity assessment in the BQ is achieved by a

comparison construal, not to a reference mass including all possible instances of N2, but to the specific configuration or constellation typically associated with N1. In (4), the number of calls is assessed by comparing the number of N2 to the volume or dimensions associated with *alud* ‘avalanche’ as a lexical item.

- (4) *La sala del 091, la Guardia Urbana, los servicios de Protección Civil de Barcelona y las redacciones de los diarios (“¿qué ha pasado?”) empezaron a recibir un **alud de** llamadas de ciudadanos preocupados por el intenso temblor que durante casi cinco segundos notaron bajo sus pies.*

‘The 091 call center, the urban guard, the Barcelona Civil Protection services and the newspaper editorial offices (“What happened?”) started receiving a **avalanche of** calls from citizens worried by the intense quaking they felt under their feet during almost five seconds.’

- (5) *La campaña internacional contra el Régimen español aumenta por días. Si coleccionara caricaturas de Franco, con su barriguita y su fajín de general, podría llenar un **montón de** álbumes.*

‘The international campaign against the Spanish government is gaining force every day. If I were to collect caricatures of Franco, with his belly and his general sash, I could fill a **heap of** albums.’

The quantity assessment of N2 in terms of N1 (e.g., [4] and (5)), is intrinsically linked to the coextensive relationship between both nominal elements. The co-extension is a prerequisite for the quantifying reading since it allows for the metonymic shift in profile from foregrounding N1 (as in the head reading) to foregrounding N2 (cf. Langacker 2011: 7). N2 indeed constitutes the essential information in terms of clausal content, whereas N1 is nothing but a quantifier and can therefore be omitted or replaced by other quantifiers.⁶ The substitution test by quantifiers does not mean however that quantifying N1s have entered the

⁶ The shift towards a quantifying interpretation of QN’s corroborates Boye and Harder’s (2012) account of grammaticalization which also integrates the discourse level. Boye and Harder (2012) equate grammaticalization with a shift in discourse prominence. The starting assumption is that “in entertaining complex mental content, there is always a priority dimension involved”. While lexical expressions are “by convention capable of being discursively primary” (2012: 7), grammatical expressions are “by convention ancillary and as such discursively secondary” (2012: 7). In the grammaticalization of BQ, N1 shifts from functional and syntactic head status and discursively primary status to quantifier and discursively secondary status. Given the systematic tendency towards conceptual persistence, the grammaticalization does not result in total loss of discourse prominence, yet in the competition for discourse prominence, N2 wins the competition (cf. Boye and Harder 2012: 23).

Fig. 1: Quantity assessment by absolute quantifiers (a) and by BQs (b)

paradigm of (absolute) quantifiers. Two important differences are to be noted. First, BQs differ from canonical quantifiers in the way they access the N2-entities: while *muchas llamadas* merely designates a plurality of N2 (cf. Figure 1a), *un alud de llamadas* bonds or unitizes the plurality into a single set (Figure 1b). The *unitizing* function of BQs does not entail that the N2-referents are necessarily spatio-temporally contiguous (as is the case in the head uses), but allows to conceptualize a set of N2s at once. The second major difference resides in the addition of a qualifying component to pure quantity assessment in the case of BQs. Since the number of entities is assessed metaphorically by comparing the set of N2 to the typical constellation of N1, it does not come as a surprise that several matching properties between N1 and N2 continue to be highlighted (e.g., the unexpected, sudden and overwhelming nature of the avalanche in [4]). Note however that N2 constitutes the essential information of the clause and thus appears as the semantic head of the construction.

The QN can also adopt a modifying function: N1 still bonds or singles out a set of N2-entities, but quality assessment now prevails, to the extent that quantity or size assessment remains unprofiled. Instead of merely agglomerating a set of N2-entities, N1 emphasizes their bondedness in terms of a specific quality associated to N1. Its function can be compared to that of pre-modifying or post-modifying adjectives or of specifying relative clauses. In (6), for instance, the exact number of kids (N2) addressed by the speaker is relegated to the background, while their categorization as a bunch stands out: they are profiled as a group of idiots incapable of making their own decisions. The characteristic of N2 highlighted by N1 is motivated by properties that are typically associated with the literal use of the QN.

- (6) – *Dos cosas, por lo menos, debíais aprender de este hecho, **hatajo de** cabritos. La primera [...]*
 ‘Two things, at least, you ought to learn from this event, **bunch of** swine (lit.: small goats). The first one [...]

Crucially, this second functional use generally evokes a third, external entity X. In addition to grouping N2 in terms of N1, the entire binominal string categorizes this external entity. In other words two type specifications (of N2 and of X) are evoked. We therefore call this functional use the (two-way) specifier use. This use, which is typically predicative, fits expressions such as *no ser más que un N1 de N2* ‘to be nothing but/just a N1 of N2’, *convertir(se) en un N1 de N2* ‘to turn into a N1 of N2’ or *ser un N1 de N2* ‘to be a N1 of N2’, e.g., (7). These copular and pseudocopular constructions indicate that the subject, the external entity X, is fully assimilated to the entity or category profiled by *un N1 de N2* and thus coincides with it. As such, the kind of entity profiled by the BQ conveys the very essence of the entity X. In other words, (two-way) specifier uses usually involve two comparison construals: while N2 is specified by means of N1, a third entity X is depicted as an instance of the category evoked by the BQ. By way of illustration, in (7), classical music is evaluated as being nothing more than a gathering of noises, etc.

- (7) *Cuando en mi casa sacábamos el tema de la música, mi madre decía que lo que llaman música clásica no era más que un **montón de** ruidos insoportables capaces de volver loca a cualquiera.*

‘When at my place we brought up the topic of the music, my mother used to say that what is called classical music is nothing more than a **heap of** unbearable noises which are capable to turn anybody mad.’

The modification involved in binominal quantifiers differs from the more habitual modification construal conveyed by adjectives (Figure 2a). If *un aluvión de*

Fig. 2: Quality assessment by adjectives (a), BQs (b) and expressive binominals (c)⁷

⁷ The illustration is in line with Langacker's (2011) symbolization of *co-extensiveness*, viz. the two lines that relate the circles. The schemas also highlight the linearity principle: in (a), the entity is mentioned first and the adjective is presented as one facet (out of a set of possible facets) that characterizes X; yet by virtue of co-extensiveness, the characteristic is mentioned first in the binominal construction and as such presented as the very essence of X.

significaciones in (8) would be substituted by *significaciones inesperadas* ‘unexpected meanings’ or *significaciones desordenadas* ‘unordered meanings’, the quantity assessment would be lost and only the facet lexicalized in the adjective would be profiled as a characteristic of the N2 *significaciones* and of the entity-X *las escenas de la tarde*. In contrast to expressive binominal constructions, e.g., *una maravilla de mujer* ‘a wonder of a (lit. Ø) woman’ (note that N2 is not a multiplex referent) which are exclusively used for quality assessment (Figure 2c), the (two-way) specifier use of binominal quantifiers combines quantity and quality assessment, minimally as some kind of homogenization of all N2s in terms of an umbrella-characteristic generally associated with N1. In contrast to regular quality assessment by adjectives, binominal constructions present the quality associated to N2 as its very essence (Figure 2b).

- (8) *Ahora las escenas de la tarde pierden su condición de simples hechos y se transforman en un **aluvión de** significaciones.*

‘Now the scenes from the afternoon are losing their status of simple facts and change into a **flood of** meanings.’

Since quantifying and qualifying inferences licensed by binominal quantifiers usually arise in speaker-hearer negotiation, it does not come as a surprise that BQs have an evaluative potential. However, as can be seen in (9), the evaluative potential of N2 is not always activated.

- (9) *Y Virginia, acto seguido, puso ejemplos, contó anécdotas, citó nombres de amigas y enemigas que habían leído a Martín: era un **alud de** pompas de jabón que aparecían, brillaban al sol, se deshacían y reaparecían aún más grandes.*

‘And Virginia, immediately afterwards, gave examples, told anecdotes, cited names of friends and enemies who had read Martín: it was an **avalanche of** soap bubbles appearing, sparkling in the sun, bursting and reappearing even larger.’

The distinction between lexical uses and functional ones relies on a battery of syntagmatic and paradigmatic tests that include pluralization of N1, substitution, agreement, omission, contextual cues, semantic relationship, etc. For reasons of space and text fluidity, the parameters are not exhaustively listed here, but see Verveckken (2012a) for a detailed description. Though highly distinctive, the paradigmatic and syntagmatic criteria are not watertight. There remains a small proportion (see Table 2) of ambivalent occurrences: we subdivide them into “ambiguous” and “indeterminate” uses, building on the distinction introduced by Willemse (2007: 562) and applied to binominal constructions in English by Brems

(2007a, 2007b). Example (10) counts as ambiguous because from the context it cannot be derived whether the files were neatly piled up, or whether the speaker just meant that he was working on different cases at the same time (with the files spread out on his desk as well as on a cabinet or on the floor). In other words, two distinct readings are equally plausible, “relying on two distinct ways of contextualization” (Brems 2007b: 562). On the other hand, an expression considered indeterminate (“vague” in terms of Willemse [2007] and Brems [2007a, 2007b]) when its overall meaning blends two different uses: in (11), the verbal predicates *emerge* and *se amontona* support the literal sense of ‘pile’, while the abstract and unspecified nature of the things piled up (*lo que nos sobra* and *lo que nos falta*) enhances the quantifying potential of *una pila de despojos*. In other words, the indeterminate instances “do not allow disambiguation” (Brems 2007b: 131). In principle, ambiguity and indeterminacy can involve any kind of reading, holding between the head reading and one or both types of functional readings, as well as between both functional readings. Interestingly, the latter type of ambivalence is the most frequent one, which suggests that the borderlines between size and type specification by BQs are thin, and especially thinner than those between a functional reading and the head reading.

- (10) *Una noche estaba en mi oficina de Managua, trabajando en una **pila de** casos de violación de los derechos humanos y pensé (. . .).*

‘One night I was in my office in Managua, working on a pile of cases of human rights violation and I thought (. . .).’

- (11) *Miami, esa ciudad con nombre de cafetería, digo, y de chuchito lanudo o niña pija, que viene a ser lo mismo, emerge como una **pila de** despojos donde se amontona por igual lo que nos sobra y lo que nos falta.*

‘Miami, that city with the name of a pub, I would say, and of a hairy dog or a posh girl, which comes down to the same, emerges as a **pile/lot of** waste, where what we have left over and what we lack is piled up in equal piles.’

In addition to the development of two functional uses with highly constrained co-selection patterns, the main reasons for considering BQs as a locus of grammaticalization are, first, the partial recategorialization and, second, the dramatic context expansion to which it gave rise. First, the shift into functional uses yields as default realization the string [*indefinite determiner* + *QN* + *de*]: variation in the N1-determiner and modification paradigms – which would testify to the “nounness” of N1 – has become highly restricted (cf. Section 3), and it is the entire string which is replaced by absolute quantifiers in substitution tests (e.g., *un montón de años* ‘a lot of years’ > *muchos/treinta/etc. años* ‘many/thirty/etc. years’). Second,

the host-class of N1 has expanded so as to include nouns denoting animate and abstract entities, and some QNs have developed the aptitude to intensify adjectives and adverbs (e.g., *mogollón* and *mar* in [12]–[13]) or to function themselves as clausal adverbs (e.g., *barbaridad* and *montón* in [14]–[15]).

- (12) *Luis Tosar no es guapo, pero es **mogollón de** atractivo.*
‘Luis Tosar is not handsome, but he is **quite** attractive.’
- (13) - *No, hijo, si yo estoy **la mar de** contenta de tenerlo aquí. Pero es que en el colegio ya habrán avisado a don Felipe. Figúrese usted el disgusto . . .*
‘-No, dear child, I am **really happy** to have you here. But the thing is that at school, they will already have informed Don Felipe. Imagine the trouble . . .’
- (14) *A mí me extrañó una **barbaridad**.*
‘That amazed me a **lot**.’
- (15) *Éramos amigos y nos queríamos un **montón**.*
‘We were friends and loved each other a **lot**.’

By way of illustration, Table 2 presents the distribution of the uses attested in the synchronic corpus and testifies to the co-existence of “older” and “newer” uses, although in different proportions. The skewing should not be interpreted however as indicative of the “degree of grammaticalization”, in the sense of a specific step in the pathway of changes already reached by the QN. The higher propor-

Table 2: Synchronic distribution of readings per QN (in CREA)

	Alud	Aluvión	Barbaridad	Hatajo	Letanía	Mogollón	Montón	Pila	Racimo
Head	16 0.19	5 0.03	–	1 0.06	4 0.15	–	114 0.23	47 0.59	25 0.52
Quantifier	62 0.72	124 0.83	9 1	6 0.38	17 0.65	44 0.96	311 0.62	16 0.20	21 0.44
(Two-way) Specifier	3 0.03	8 0.05	–	7 0.44	2 0.08	1 0.02	29 0.06	1 0.01	2 0.04
Ambiguous	–	1 0.01	–	–	1 0.04	–	33 0.07	10 0.13	–
Indeterminate	5 0.06	12 0.08	–	2 0.13	2 0.08	1 0.02	13 0.03	6 0.08	–
Total	86	150	9	16	26	46	500	80	48

tion of functional uses of *alud* or *aluvión* in comparison to *pila*, for instance, does not mean that the former are highly grammaticalized, it rather illustrates Hoffmann's concept of "conceptual frequency" or "saliency" (Hoffmann 2004: 191): *pila*'s lexical use is more common simply because *pila* is a more basic and daily concept than avalanches or floods. The assumption as to the degree of grammaticalization – if that notion applies at all – is rather based on the syntactic context expansion realized (Himmelman 2004).

3 From conceptual to formal persistence

In the literature on binominal constructions, the synchronic divergence (cf. Hopper 1991) of uses as illustrated in Table 2 is cross-linguistically considered as the outcome of a grammaticalization process (Bosque 2007; Brems 2011; Koptjevskaja-Tamm 2009; Verveckken 2012b) whereby the N1 as a lexical noun gradually shifts towards the quantifier category. The grammaticalization of BQs in Spanish is however not straightforward.

From a diachronic point of view, Verveckken (2012a) shows that not all BQs started from a productive literal use. Instead, some QNs (e.g., *aluvión de*, *letanía de*, *barbaridad de*, etc.) activated their quantifying potential immediately when used in the binominal sequence. At first sight, one might consider only those QNs with a productive literal use as cases of genuine grammaticalization, while the others would merely be metaphorical exploitations of the QN. However, the metaphorical explanation cannot account for the productivity of the construction or for the fact that in some cases the literal uses simply arise *later* than the functional uses. Structural analogy towards a highly frequent model (e.g., *montón* 'heap', cf. Hoffmann 2004, Noël 2007⁸) can account for the similar morphosyntactic behavior of less frequent items, but fails to explain the strong ties the grammaticalized QNs maintain with their original use (in contrast to the highly desemanticized model *montón de*).

Verveckken (2012a) establishes a constructional network model (see also Traugott 2007, Trousdale 2010) displaying various degrees of schematicity to account for the inverted directionality of changes which also explains the irregular frequency pattern (two high-frequency items, viz. *montón* 'heap' and *mar* 'sea',

⁸ While both Hoffmann (2004) and Noël (2007) suggest that low frequency items rather make an analogical jump than grammaticalize, Noël (2007: 184) emphasizes that a distinction should be maintained between similar cases of "schematization" and genuine cases of "grammaticalization". While schematization rather concerns the association of a meaning with a particular construction, grammaticalization involves the change into a "more grammatical" construction (Noël 2007: 195–196). (We thank the anonymous reviewer for this suggestion).

coexist with lots of low-frequency items), the prototype or triggering function of *montón de*, the partial functional overlap with expressive binominals (such as *un desastre de película* ‘a disaster of a movie’) and the systematic tendency towards persistence (see *infra*). At least until the end of the 19th century, structural analogy or paradigmatic associations are found to be triggered by syntagmatic associations or pragmatic inferences (see also De Smet 2012: 619⁹; Fischer 2007: 124). Verveckken (2012b) assumes that the first functional uses of *montón de*, e.g., (16), are not interpreted (or reanalyzed) as quantifiers because the language user already had quantifying structures in his language system, viz. the paradigmatic possibility yielded by existing absolute quantifiers such as *mucho/a(s)* ‘many’, but because the discourse context – more precisely the rhetorical question *¿pora que traballare de aplegar (...)?* and the premodifying adjective *grant* in (16) – somehow force a quantifying interpretation. This assumption is further supported by the first functional uses observed for *aluvión* ‘flood’, *hatajo* ‘herd, bunch’, *letanía* ‘litany’, *mar* ‘sea’ and *pila* ‘pile’, which were also motivated and triggered by contextual elements. Further, at the most schematic level, the grammaticalization process does not primarily associate the binominal syntagm *un N1 de N2_{multiplex referent}* (form-part) with either quantity or quality assessment (meaning-part), yet with *co-extension* between both nominal elements, which is to be seen as a continuum between quantity and quality assessment (Verveckken 2012a).

- (16) *Pues que assi es, ¿pora que traballare de aplegar grant monton de paraulas en contarte la manzilla de aquesta muyt suzia et pudient amistança et conueniencia de pactos que los romanos la hora firmaron con los sannites?* (1376)
 ‘Because that is how it is, why try so hard to gather a big **heap of** words while telling you about the dishonor of that very dirty and powerful friendship and the convenience of pacts that the Romans then signed with the Samnites?’

From a synchronic point of view, the grammaticalized uses of the QNs seem to clash with the precondition of desemanticization. For most grammaticalization-ists, it is imperative that the items under grammaticalization lose in concrete specificity without necessarily yielding a loss in semantic complexity (Traugott 2010). Unlike with manner adverbs becoming sentence adverbs and even particles (cf. Fischer 2007), in the case of these binominals there are but very few QNs that desemanticize. And as they do not become fully grammatical items, they

⁹ De Smet (2012: 619) shows that “actualization is not a simple bearing out of the implications of highly abstract syntactic generalizations”, yet “follows the path of maximal familiarity” and is “found to thrive on superficial analyses of linguistic structure”.

do not what Lehmann (1995) called “paradigmatize” and they retain a lot of their source meaning.

As originally defined by Hopper (1991), *lexical* persistence refers to the tendency of some grammaticalizing items to retain certain properties of their original lexical use, which may continue to influence their further development in various ways. Originally profiled components can thus cease to be profiled, while others can evolve independently and persist in the quantifying or (two-way) specifier use of the BQ, with repercussions on the ulterior evolution of the construction. By way of illustration, the quantification over an indeterminate number of years by means of *pila de* ‘pile of’, as in (17), abstracts away from the vertical configuration proper to *una pila de libros* ‘a pile of books’; yet, the image of entities orderly stacked one by one has not entirely faded away in the representation of the succession of years going by.

(17) *Fuiste gerente durante una pila de años.*

‘You were manager during a **lot** (lit. ‘pile’) **of** years.’

The term *lexical* persistence is however not fully adequate for our purposes; the notion of *conceptual* persistence is to be preferred. First, the lexicographic treatment of Spanish QNs is characterized by a considerable diversity and presents quite severe gaps¹⁰. Most definitions encountered for *alud* ‘avalanche’, for instance, evoke the image of loud and violent crashing snow but fail to mention that an avalanche is irrepressible, unstoppable, and life-threatening; in our view, this property is nonetheless part of the conceptualization of an avalanche and influences the quantifier use of *alud*, as shown in (18).

(18) *Pero lo que de verdad hubiera afectado a la estabilidad del país, habría sido el imparable alud de reproches que habría recaído sobre González.*

‘But what would really have affected the country’s stability would have been the unstoppable flood of reproaches that would have fallen down over González.’

¹⁰ The DRAE, e.g., simply defines *alud* as “Gran masa de nieve que se derrumba de los montes con violencia y estrépito.” (‘Large mass of snow that comes down the mountains with violence and crashing.’); the CLAVE does not add other characteristics in “Gran masa de nieve que se desprende de una montaña y cae con violencia y estrépito.” (‘Large mass of snow that comes of a mountain and falls with violence and loudness’). The same holds for *aluvión*, which is described as follows in the DRAE: “1. m. Avenida fuerte de agua; 2. (. . .)” (‘Strong flood of water’) and in the CLAVE: “1. Crecida, inundación o corriente violenta de agua, que se producen repentinamente” (‘Violent rise, flooding, current of water that is suddenly produced.’).

Second, starting from the assumption that every QN evokes a specific conceptual image – which gets imposed on the N2 it precedes (cf. Verveckken 2012a) – we can explain why the conceptual facets that persist in the grammaticalized uses may be different from one example to another, in other words, why persistence is relatively unpredictable. The image-schematic structure of each QN is indeed composed of a set of conceptual facets that present distinct levels of schematicity. The specific contextual cues and setting then co-determine which (set of) facet(s) get(s) highlighted. By way of illustration, the following examples of *aluvión de* both profile a group of N2s which suddenly appear all at once and, by doing so, overwhelm a specific entity. However, while in (19) the abruptness and newness of the N2s are particularly prominent in the conceptualization of *curas*, in (20) the focus is on the unexpected nature of the high number of calls. Although the abruptness, the newness and the unexpected nature are all facets that belong to *aluvión*'s conceptual image and could in theory be profiled in any instance of *un aluvión de N2*, the two former facets are particularly profiled in (19) and the latter in (20) in view of the contextual cues.¹¹

- (19) *Ya no era sólo el padre Antonio el que hablaba descaradamente de “libertad”, de amor, de caridad y de pureza de intenciones. De repente, un aluvión de curas nuevos planteaban soluciones nunca oídas hasta aquellos momentos.*
 ‘It was no longer only Father Antonio who spoke frankly of “freedom”, of love, of charity and the pureness of intentions. Suddenly, a flood of new priests set out solutions that had never been heard of before.’
- (20) *A las 9 horas, tres médicos del cuerpo de sanidad militar comenzaron a atender las seis líneas habilitadas del teléfono 91-395-54-85. Sin embargo, el aluvión de llamadas desbordó todas las previsiones, por lo que Defensa reforzó el servicio con otros siete facultativos más, (...).*
 ‘At 9 o’clock, three doctors from the military health force started to operate the six telephone lines supplied for 91-395-54-85. Nevertheless, the flood of phone calls exceeded all expectations. That’s why the Department of Defense reinforced the service with another seven physicians, (...).’

¹¹ An anonymous reviewer pointed at the possible circularity in this reasoning: should the abruptness, the newness, etc. be read into *aluvión* or are these characteristics conveyed by the context? The individual conceptual images described in Verveckken (2012a) for each QN, i.e., the set of conceptual facets that could be profiled in specific instances, have been established after meticulous corpus analysis. Only those facets are taken into account that are often explicitly mentioned in the context or that appear to characterize the scenery evoked.

A further reason why the term *conceptual* is more convenient is the gradual nature of persistence; in the grammaticalization framework, “lexical” is indeed often associated with the dichotomy lexical-grammatical. The following examples of *hatajo de*, for instance, illustrate different degrees of metaphorization of the QN. Example (21) provides a highly metaphorical reading: the speaker addresses a limited number of people who he considers fairly ignorant (*dos cosas debíais aprender*) and he categorizes them all as goats without any further distinction, which mirrors the lack of individuality among the animals in a literal herd. In addition, N2 evokes the literal “animal” frame, which, of course, enhances the conceptual persistence. By contrast, the use of *hatajo de* in (22) seems to have abstracted further away from the original “herd” frame. Although the N2-entities are reduced to a shared event (*que murieron hace veinte años*) and *hatajo de* is used pejoratively, the strictly metaphorical interpretation of *hatajo de* is less straightforward since the Kurds (N2) are not conceptualized as a mass of entities moving closely together. In fact, they are not even animate entities anymore. In (23), the N2 entities are completely devoid of animacy which rules out a metaphorical interpretation of *hatajo de*.

(21) - *Dos cosas, por lo menos, debíais aprender de este hecho, **hatajo de** cabritos.*

‘Two things, at least, you ought to learn from this event, **bunch of** goats.’

(22) *Lo demás es zarandaja, ¿o usted cree que Milwaukee sacrificaría a uno sólo de sus hijos por un **hatajo de** kurdos que murieron hace veinte años?*

‘Everything else is tittle-tattle, or do you really think Milwaukee would sacrifice a single one of its sons for a **bunch of** (lit. herd of) Kurds who died twenty years ago?’

(23) *De él dirán inmediatamente que es un moralista, un lúdico severo, teórico riguroso de la sensibilidad y sensible crítico de la duda. Visto lo anterior, conforta abandonar **hatajo de** originalidades tan repetidas y contemplar los modestos matices que, dentro del discurso político, viene adoptando últimamente un concepto tan poco chocante en la democracia como el liberalismo.*

‘Of him they will immediately say that he is a moralist, a ludic yet severe man, a strict theorist of sensibility and a sensible critic of doubt. In view of that, it comforts abandoning a (lit. Ø) **bunch of** originalities repeated so many times and to consider the modest nuances that, within the political discourse, has recently come to adopt a concept so slightly shocking in democracy as liberalism.’

The treatment of QNs in terms of (conceptual) persistence can be justified by an iconic, a collocational, a diachronic, and a formal factor. In the light of the iconicity principle¹², it is important to note that the conceptual mechanism underlying the BQ is one of comparison: in order to assess the size or quantity of the group of entities denoted by N2, the speaker compares the size of N2 to the volume or configuration typically associated with N1 as a lexical item (see also Huelva Unternbäumen 2007). The QN thus imposes its conceptualization or part of it to N2. A major argument supporting the primary role of conceptual persistence is that N1 is mentioned first in the flow of speech and is processed before N2 is uttered. Iconically, N2 adjusts its conceptualization to the image activated by N1, which comes first and already yields a specific configuration of a mass or group of entities.¹³ In (18) for instance, *alud de* ‘avalanche of’ obviously does more than only quantifying the reproaches: it suggests that they form an uninterrupted chain that violently overwhelms the Prime Minister (González), as if it were snowing him under as a literal avalanche. The co-occurrence in the immediate context with terms such as *afectado* ‘affected’, *estabilidad* ‘stability’, *imparable* ‘unstoppable’, *recaído* ‘fallen down’ corroborates the high level of persistence in this example.¹⁴

The partial compositionality of the BQ is further corroborated by the strong collocational preferences that characterize the individual binominal constructions. For *alud* ‘avalanche’, e.g., the expansion from the context of natural phenomena involving snow, stones, ice . . . to concrete objects, abstract concepts, and animate beings clearly occurs in clusters. All the N2s encountered in the corpus share the dynamicity and the suddenness of appearance, i.e., two properties that are essential to the conceptualization of an avalanche. Similarly, the most

12 In preview of Section 4, it bears pointing out that Fischer (1999: 351–353) similarly argues that “isomorphism” or “iconic analogy” causes persistence in processes of grammaticalization. She adduces the variety of more or less grammaticalized forms to express the future in English “the zero form, *will*, *shall*, *to be going to/gonna*” (Fischer 1999: 353). Crucially, these expressions are not synonymous and “[t]heir specific nuances can be explained diachronically, on the basis of their original meaning. In other words, the original relation between the signans and the signatum has remained *in spite of* grammaticalisation, preserving isomorphism” (Fischer 1999: 153).

13 Only *montón de* ‘heap of’ appears to be fairly unrestricted: as QN, it combines with any kind of N2 (concrete/abstract, bound/unbound, animate/inanimate).

14 It is, of course, not ungrammatical to substitute *muchos reproches* ‘many reproaches’ for *alud de reproches* ‘avalanche of reproaches’ in (18). However, an important meaning component gets lost, viz., the image of a sudden, violent irruption that bursts on the Prime Minister, thus destabilizing the country. Turning to true quantifiers, such as *numerosos* ‘numerous’ or *cantidad de* ‘quantity of’, would equally fail to render the aggressiveness and inescapability inherent in *alud* ‘avalanche’. Crucially, it would make it impossible to highlight some typical property by means of an epithet like *imparable* ‘unstoppable’.

prominent N2-clusters observed for *letanía de* are types of insults or praises, small parts of discourse and enumerations.

Diachronically, the host-class expansion towards new N2s is shown to also proceed via semantic clusters – i.e., clusters of semantically related N2s – which interact with the source semantics of the QN (cf. Verveckken 2012a, 2012b). By way of illustration, the functional uses of *aluvión de* in Modern Spanish (1730–1900) typically combined with the clusters of *invaders* (e.g., *bárbaros* ‘Barbarian people’, *viajeros* ‘travelers’), *parts of discourse* (e.g., *palabras* ‘words’), *(un)pleasant reactions* (e.g., *censuras* ‘censure’), and *sensations* (*pisadas* ‘footsteps’ which are depicted as the sounds the speaker is hearing). Outside the context of *aluvión de*, those four clusters have little to do with each other of course, but they all license the construal as dynamic entities suddenly overwhelming a specific victim. Over time, the N2-collocates no longer necessarily constitute prototypical instances of a specific cluster by their lexical meaning (cf. *bárbaros* in the invader-cluster), but they are construed as members of a specific category by the discourse context.

Finally, the formal justification of the influence of conceptual persistence in the grammaticalization of BQs lies in the *formal* persistence the BQs testify to and which we argue to be conceptually and discourse-pragmatically motivated and maintained. The outlook of the binominal syntagm indeed remains largely unaltered, and there is no phonological attrition (unlike in the English *alotta* [Langacker 2009] or *helluva* [Trousedale 2010]). The fluctuations in the co-selection pattern regarding the QN indicate that the grammaticalization of BQ does not entail the abrupt decategorialization as a noun nor the complete recategorialization as a quantifier (cf. Heine and Narrog 2010). The combinatorial variation regards the N1-determiner (Section 3.1), the modification of N1 by adjectives (Section 3.2) and verb agreement (Section 3.3). We will briefly illustrate in the following sections that the morphosyntactic behavior of the BQ is conceptually and discourse-pragmatically determined.

3.1 Fluctuation in the N1-determiner pattern

In view of the head-status of the second noun, the determiner variation in the grammaticalized uses is unexpected. The more since the nominal elements are necessarily co-extensive, which means that N1 cannot have a proper discourse-referential value. Yet precisely the co-extensiveness between both nominal elements allows the N1-determiner to scope over the entire BQ-construction. Although the determiner agrees morphologically with N1, it semantically scopes over N2.

With regard to determiner variation in functional uses, three major tendencies can be observed (cf. Table 3, see also Verveckken 2012a). First, generalizing over the different readings, the indefinite determiner is by far the preferred combination and is only marginally liable to alternate either with definite determiners, viz. the definite article (as in [24]), the demonstrative (as in [25]) and the possessive (as in [26]) or no determiner at all (as in [27]). A fine-grained qualitative analysis has shown that the topicalized nature of the BQ is preconditional to the use of definite determiners. In (24), the announcement of the release of cultural events allows the speaker to zoom in on *el aluvión de actividades* ‘the flood of activities’ and to go on listing them. In (25), *este alud de ofrecimientos* ‘this avalanche of offers’ echoes the previously introduced *sucesivas ofertas de trofeos* ‘successive trophy offers’. In (26), relentlessly complaining gets subsumed as a personality trait in *su letanía de agravios y rencores* ‘her litany of offenses and resentments’. Interestingly, when leaving out the quantifying binominal in (24)–(26), the same determiner can continue to be used (cf. [28]). The preference for the indefinite determine *un(a)* is also discourse-pragmatically motivated, since it goes hand in hand with the typical rhematic status of the BQ-construction (cf. Mihatsch 2010).

- (24) *Como si fuera señal convenida, con la apertura del curso universitario se levantó la veda de los actos culturales. Entre lo que se inauguró y lo que a punto está dentro de unos días, el **aluvión de** actividades nos llega por distintos frentes, con ímpetu renovado después de la tregua veraniega: exposiciones a lo grande, conciertos, encuentros de teatro, ciclo de conferencias, Congresos internacionales, simposio sobre Murillo . . .*

‘As if it were an agreed sign, with the opening of the academic year the season of the cultural events got started. Between what was inaugurated and what was about to be within a few days, the **flood of** activities reaches us from various fronts, with renewed violence after the summer truce: magnificent exhibitions, concerts, theater meetings, conference cycles, international conferences, a symposium on Murillo . . .’

- (25) *No contenta con el éxito inicial, Editorial Office volvió a la carga y siguió bombardeando infructuosamente a Quintela con sucesivas ofertas de trofeos los años 1985, 1986 y 1987. (. . .). Abrumado por este **alud de** ofrecimientos, Quintela pasó al contraataque en clave de humor.*

‘Not satisfied with the initial success, Editorial Office came back and continued in vain to bombard Quintela with successive trophy offers in 1985, 1986, and 1987. (. . .) Overwhelmed by this **avalanche of** offers, Quintela struck back humorously.’

- (26) *Ella lo recriminaba todavía, a la menor oportunidad, por lo que consideraba su cobardía para haberse lanzado a esa vorágine, su incapacidad para haber resuelto debidamente la situación. Esta tarde ha tenido que oírle de nuevo todas esas quejas, soportar su **letanía de** agravios y rencores, tratar de contestarle a preguntas que no tienen contestación, dulcificar respuestas que podrían resultar hirientes y que la hubieran exasperado más.*
‘She still incriminated him, at the slightest opportunity, for what she considered his cowardice to have flung himself in this whirl, for his inability to solve the situation properly. This evening he had to hear all those complaints again, to stand her **litany of** insults and hard feelings, to try to answer questions which have no answer, to tone down answers which could appear to be offending and which would have irritated her even more.’
- (27) *En una iglesia había **mogollón de** santos cristianos con las manos cortadas. Al parecer fue un castigo de los feligreses por haber permitido que en cierta ocasión se incendiara la iglesia.*
‘In a church there were a (lit. Ø) **lot of** Christian Saints whose hands had been cut off. Apparently it was a punishment of the parishioners for having allowed on some occasion that the church burned down.’
- (28) ... unos días, las actividades nos llegan por distintos frentes ...
... Abrumado por estos ofrecimientos, Quintela ...
... todas esas quejas, soportar sus agravios y rencores, ...

The second observation concerns the amount of variation: Table 3 illustrates that the head uses do not present more structural variation than the quantifying

Table 3: Distribution of determiner variation per reading

	<i>un(a)</i> Indefinite	<i>el/la</i> Definite	<i>aquel(la)</i> Demonstrative	<i>ese/esa</i> Demonstrative	<i>este/esta</i> Demonstrative	<i>su</i> Possessive	<i>¡qué!</i> Exclamative	<i>otro/otra</i> Indefinite	No determiner	TOTAL
H	138	59	2	4	1	1	–	1	6	212
	0.65	0.28	0.01	0.02	0.005	0.005	–	0.005	0.03	
Q	459	102	4	2	7	4	1	2	29	610
	0.75	0.17	0.01	0.003	0.01	0.01	0.001	0.003	0.05	
(two-way) S	37	3	4	3	2	–	–	–	4	53
	0.7	0.06	0.08	0.06	0.04	–	–	–	0.08	
TOTAL	690	181	13	14	12	7	1	3	44	875

uses, which even display one combination that does not occur in the literal uses, viz. the exclamative *¡qué!* ‘what a’; this form marks the presence of some illocutionary force (surprise, enthusiasm, confusion, perplexity, indignation etc.) and maximizes both the quantity and the quality of the (type of) properties of the nominal entity it modifies. In this context, the QN may seem pleonastic, since the construction without QN is also registered as such (cf. Alonso-Cortés 1999: 3998). However, whereas e.g., (30) makes a huge number of impressive memories appear as a disparate mass, the QN in (29) additionally conveys the idea that to the speaker they form an aggregate, comparable to an unordered stack, albeit in a vague and abstract way, given that *montón* ‘heap, pile’ is the most grammaticalized of the QNs (Verveckken 2012b). Yet, the untidiness and immobility which characterize its source semantics nicely fit in with the remote and untouched image of the N2 entities (‘memories’ from ‘thirty, thirty-five years’ ago).

(29) – *Veros vestidas así . . . ¡Qué **montón de** recuerdos! ¿Cuánto tiempo hace? ¿Treinta? ¿Treinta y cinco años?*

‘– To see you dressed like this . . . What a **heap of** memories! How long ago is it? Thirty? Thirty five years?’

(30) *¡Qué de recuerdos!*

‘How many (lit. what of) memories!’

The final observation concerns the three demonstratives *aquel*, *ese* and *este* that appear to be equally frequent and are mainly used in (two-way) specifier readings. The latter preference is again discourse-pragmatically motivated: (two-way) specifier uses primarily specify N2 and are therefore often rooted in the subjective vantage point of the speaker. Delbecque (2011) illustrates that, in addition to situational deictic marking, the choice of the demonstrative can be revealing for the stance of the speaker: in (31), e.g., *ese* ‘that’ is not simply a situational deictic marker suggesting that the speaker is pointing to a bunch of crooks (*racimo de bandidos*), it primarily signals the speaker’s endorsement of the categorization (cf. Delbecque 2011). In other words, even when N1 denotes concrete entities, there is more at stake than the spatial configuration of the QN. With *est-* ‘this’, speaker involvement is rather situated at the experiential level. This can be readily seen when N2 is abstract, i.e., not spatially anchored; e.g., in (32), the demonstrative indicates that the speaker is personally affected and that the non conventional qualification of a large series of misfortunes as a litany is rooted in her own experiential domain. The demonstrative underlines that the equation she comes up with is telling for her mindset.

- (31) *No pierdas tiempo en maldiciones. Enfilame a ese **racimo de** bandidos y pon tu pincho al servicio del rey.*
 ‘Don’t waste time in curses. Get me that **bunch of** crooks and put your gun at the king’s service.’
- (32) *¿Por qué no me matas, Fernando, y acabamos de una vez con esta **letanía de** angustias y de lágrimas?*
 ‘Why don’t you kill me, Fernando, and then we end once and for all this litany of fears and tears?’

In sum, although determiner variation is a typical nominal feature, the fluctuation in this pattern is semantically and discourse-pragmatically motivated. In other words, the formal persistence is not considered to counteract the grammaticalization process. On the contrary, given that the determiner pattern is useful and rooted in the discourse integration of the BQ, the alternation is not likely to be given up by native speakers in the near future.

3.2 Fluctuation in the premodification pattern

In the case of adjectival modification, the “noun-ness” or formal persistence is again only partial: the paradigm of premodifying adjectives is certainly not an open-ended nor a productive one. On the contrary, it is constrained by structural and conceptual selection restrictions. In (33), for instance, it is perfectly fine to add the adjectives *verdadero* and *imparable*, which intensify the quantifying reading. N1 does not admit, however, relational adjectives (e.g., *local* ‘local’) nor descriptive adjectives (e.g., *acuoso* ‘watery’).

- (33) *Recibí un [verdadero/imparable] alud de llamadas.*

‘I received a [real/unstoppable] avalanche of calls.’

**Recibí un local alud de llamadas.*

**Recibí un acuoso alud de llamadas.*

In addition, the intensifying adjectives are restricted to the prenominal slot¹⁵: while it is perfectly fine to say *un verdadero alud de llamadas*, postmodifying

¹⁵ The only postmodifying adjectives observed are past participle forms with complements, which necessarily occupy the postnominal slot (Delbecque 1990: 384). E.g., *Para entonces el campamento ya sólo era un montón de escombros, rodeado de enemigos por todas partes.* ‘By that time, the camp was already nothing more than a heap of ruins, surrounded by enemies everywhere.’

adjectives as in *‘un alud verdadero de llamadas’* are not attested in the corpus. This tendency is functionally and conceptually motivated: Delbecque (1990: 374–376) shows that by preposing the adjective, the property attributed to the noun is presented as unquestionable and presuppositional knowledge¹⁶, whereas the post-modifying adjective invites to compare the modified noun to other instances of its type for the property expressed by the adjective. Consequently, the reverse order in *‘un alud imparable de llamadas’* is highly marked and would to some extent imply an external comparison with other avalanches (e.g., [34]). The preposed adjective is thus the unmarked option, and the only one in grammaticalized uses, since, strictly speaking, N1 has no proper discourse referent value and external comparison is excluded. Further, since only intensifiers or adjectives profiling a facet of the QN’s conceptual image are observed, the few premodifying adjectives encountered in the corpus merely intensify the QN’s image schematic structure by presenting the adjective as the essence of N1.

(34) *Recibí un inmenso alud de llamadas.* (‘immense’)

**Recibí un alud inmenso de llamadas.*

>< *Un alud inmenso (de nieve) aplastó los alpinistas.*

‘An immense avalanche crushed the mountain climbers.’

Besides, the kind of possible qualifications is highly predictable and to a large extent QN-related. The only adjectives allowed are intensifying adjectives, which either focus on the volume (e.g., *grande* ‘big’) or the authenticity (e.g., *verdadero* ‘real’) or profile a specific facet of the QN’s conceptual image. By way of illustration, in CREA, *alud de* exclusively combines with *imparable* ‘unstoppable’, *incontenible* ‘uncontrollable’, *rico* ‘rich’, *riquísimo* ‘very rich’, *todo* ‘entire, whole’, *verdadero* ‘real’. The participial adjectives *producido* ‘produced’ and *encauzado* ‘channeled’, that can appear after N2, thus qualifying the [N1 *de* N2] compound, equally fulfill an intensifying function since they also highlight a property that is specific to literal avalanches. It is further to be noticed that QNs other than *alud de* ‘avalanche of’ or *aluvión de* ‘flood of’ are unlikely to combine with *incontenible* ‘uncontrollable’ or *producido* ‘produced, provoked’ (cf. Verveckken 2012a).

¹⁶ This interpretation is in line with the iconicity principle, since “the processing of the given property is completed when ‘arriving’ at the noun”, and as such, “the idea of any external comparison is overridden.” (Delbecque 1990: 272).

3.3 Fluctuation in verb agreement

In addition to adjectival modification and determiner variation, a third formal reflex of conceptual persistence shows up in the variable number agreement of the verb when the binominal syntagm functions as grammatical subject. In principle, the verb is considered to agree with the head of the binominal construction (see also Keizer 2007; Traugott 2008b; Vos 2002). With plural N2, plural verb agreement thus signals that N2 functions as head and N1 as quantifier, e.g., (35). The internal structure of the binominal [Det. N1 *de* N2] then brackets as follows: [[Det. + N1_{QN} + *de*] + N2_{head}]. Singular verb agreement, on the contrary, indicates that the QN occupying the N1 slot is taken as head: [Det. + N1_{head} + [*de* + N2]]. In this arrangement, N1 does not function as quantifier and its concrete reading prevails. In (36), the image of a true stone avalanche is profiled even if, strictly speaking, the avalanche is not triggered by forces of nature.

- (35) *Cuando Mossén Ballarín (Barcelona, 1920) sale de los estudios de televisión donde ha sido entrevistado, un aluvión_{sg} de personas_{pl} se le acercan_{pl}. Le han_{pl} reconocido.*

‘When Mossén Ballarín (Barcelona, 1920) leaves the television studios where he was interviewed, a **flood of** persons approach him. They have recognized him.’

- (36) *La despertó_{sg} un alud_{sg} de piedras_{pl}. Como si derribaran la torre del homenaje. Pero era la comadre que había abierto la puerta, toda desgreñada y aventada.*

‘She was woken up by an **avalanche of** stones. As if they were breaking down the testimonial tower. But it was the godmother who had opened the door, all disheveled and unkempt.’

The plural agreement pattern constitutes the unmarked option. Corpus analysis confirms that plural agreement is mainly attested in combination with a quantifying reading. However, there are also cases of unexpected verb agreement in the singular despite an obvious quantifying interpretation of N1. In our view, the fact that even a manifestly quantifying reading of N1 does not necessarily yield plural agreement with N2 is semantically motivated (cf. Verveckken and Cornillie 2012).

Examples (24) (*llega* ‘arrives’ IND PRES 3S) and (37) (*saliera* ‘come-out’ SUBJ IMPF 3S) are representative for the marked option. The singular appears in contexts that metaphorically exploit various dimensions of the image of a ‘flood’. In (24), the activities irrupt from various sides (*por distintos frentes*) with renewed force (*con ímpetu renovado*) after summer calm (*después de la tregua veraniega*).

In (37), the flow of new models cannot be stopped (*no ha impedido*), it goes on (*siguen empuñadas*) filling all possible gaps (*todos los huecos*). The N1-profile is further enhanced by means of the definite article in (24) and by the intensifier *auténtico* ‘authentic’ in (37). In both contexts the image of a literal flood persists in the quantifying use to the extent that agreement with N1 feels more natural again. In other words, singular verb agreement correlates with a high degree of conceptual image persistence, and is very unlikely to occur in contexts that only display a low degree of conceptual image persistence such as (35).

(37) *La incertidumbre no ha impedido que en Ginebra saliera_{sg} a la luz un auténtico aluvión_{sg} de modelos_{pl} nuevos: las marcas siguen empuñadas en ocupar todos los huecos del mercado para ampliar las ventas y no dar ventajas a la competencia.*

‘The uncertainty has not prevented an authentic **flood** of new models to come out in Geneva: the brands keep determined to occupy all the slots of the market in order to increase sales and not to give advantages to the competition.’

Summarizing, the notion of *conceptual* persistence has been introduced to refer to the persistence of some salient properties that belong to the conceptual image associated with the lexical meaning of N1. As appears from the foregoing discussion, *conceptual persistence* is a gradual phenomenon, both in the degree of metaphorization as in the selection of the facet(s) profiled. In Section 4, conceptual persistence will be further characterized as context-dependent to a large extent. The phenomenon of conceptual persistence will be shown to interact with and even thrive on analogical thinking. In view of the context-induced inferences of quantity in the first functional uses of QNs in Medieval and Classical Spanish, it is necessary to further dig into the interplay between the QN and the discourse set-up to better understand the collocational preferences observed. In the last section we therefore proceed to relate the choice of the individual QNs to other contextual elements that contribute to profile the conceptualization of N2. As such, our case-study can be read as additional evidence for De Smet’s (2013) claim that in analogy, paradigmatic and semantic motivations often co-occur and can be hard to tell apart.

4 The role of discourse in *analogical thinking*

The notion of *analogy* has received much attention in theorizing on grammaticalization, as a mechanism, motivation and motor in language change (Givón 1991,

Fischer 2007, Wanner 2006).¹⁷ Basically, analogy refers to structural or semantic similarity the speaker perceives between a particular (source-)construction and a (target-)construction which invites him to parse the former as an instance of the latter. An often-cited example is morphosyntactic hypercorrection: e.g., a speaker may use *brung* rather than *brought* “because it fits another past tense pattern: *rung*, *stung*, etc., which happens to be far more frequent than the pattern of *brought*.” (Fischer 2011: 34).

In historical linguistics, analogy is primarily associated with *structural* similarity between two or more elements of a *paradigm* (cf. Traugott and Trousdale 2010: 35). In the grammaticalization framework, the explanatory power of analogy gained particularly in strength since Hoffmann’s (2004) analysis of low-frequency complex prepositions: he argues that low-frequency items such as *by dint of* grammaticalize via analogy to their more frequent structural relatives such as *in view of*, which are involved in standard grammaticalization. Similarly, analogical thinking to “conventionalized” or entrenched modeling constructions, which are either more frequent or more schematic, forms the backbone of diachronic construction grammar approaches picturing the process of grammaticalization by distinguishing different constructional levels or degrees of schematicity (Traugott 2007, 2008a, 2008b; Trousdale 2008).

Since *reanalysis* has also been proved to be a relevant mechanism in language change, there is a long-running and framework-independent debate among historical linguists on which mechanism should be attributed a primary or dominant role. Oversimplifying, *reanalysis* or rebracketing refers to the abrupt category/meaning shift items undergo when they are assigned a new grammatical category/meaning in ambiguous contexts. It is thus a covert and invisible change. For instance, in *un montón de libros* ‘a heap of books’, it might be unclear to the hearer whether the speaker meant a specific configuration of books – with [un montón_{head} [de libros]_{PNP}] as underlying structure – or a large quantity of them – with [[un montón de]_{quantifier} libros_{head}] as underlying structure. While reanalysis is considered to operate *within* syntagms, analogy works *across* syntagms (De Smet 2009: 1728).

Arguments usually cited in favor of reanalysis are the “looseness” of analogy (Fischer 2008: 350) and the immanence of (re)analysis in analogy. Traugott and Trousdale (2010: 39, among others, argue that “there is no change without reanalysis”): although a specific change can be motivated by analogy, the

¹⁷ See also Fischer (2008: 350): “analogy should be seen as both a *mechanism* and a *cause* (cf. also Itkonen 2005). By means of analogy we may change structures and the contents of paradigmatic sets, but it is also analogy that causes the learner to build up more abstract types or schemas.” See also Anttila (2003: 426) who highlights the “gap filling” potential of analogy.

mechanism remains reanalysis or parsing, viz. assigning a specific category to an instance. However, those in favor of analogy as the dominant mechanism rather focus on its “proportional”¹⁸ and “gap filling” nature. In view of the gradual character of grammaticalization or language change in general, De Smet (2009: 1751) proposes to break down the mechanism of reanalysis into several more fundamental mechanisms which correspond to principles of synchronic grammatical organization (see also De Smet forthcoming and Fischer 2011, 2012)¹⁹. While even those in favor of “reanalysis” recognize that “analogy” can be the motivation for change (Traugott and Trousdale 2010), Fischer (2011: 36) more strongly suggests that analogy is a prerequisite for grammaticalization: “the driving force next to (syntagmatic) context and frequency, is the availability of a (paradigmatic) category or construction pattern that shows formal and/or semantic similarities so that the new variant may fit the synchronic system of the speaker-listener.”

In Section 4.1, we advocate a broad interpretation of analogy that not only includes *semantic* in addition to formal similarities (cf. also Anttila [2003: 426]; De Smet [2013: 65, p.c.]; Givón [1991: 258]), but also acknowledges the possibility of *syntagmatic* relations to the source construction or, more precisely, recognizes both a syntagmatic and a paradigmatic dimension in analogy (cf. Anttila’s [2003] “Warp and Woof of Cognition”, De Smet 2013, Fischer 2011). The case-study on binominal quantifiers makes us argue in Section 4.2 that a usage-based account of analogy should incorporate the *discourse level* as an additional motivation for syntagmatic associations.

18 Cf. Fischer (2011: 34–35): “The important point about analogical extension is that it occurs proportionally. It doesn’t simply involve the ‘expansion of contexts in which a construction can occur’, ‘adding new peripheral members [e.g., new infinitives, inanimate subjects] to a category [e.g., *going-to*]’ (Bybee 2003: 158); it happens because, once *going to* is taken for the Aux-category, it will follow the behavior of other members of this new category.” Similarly, in an attempt to question the dominance of reanalysis, De Smet argues that “the first English auxiliary could not be analyzed as an auxiliary until there was a second one. Before that time, the ‘auxiliary’ would have been an under-analyzed and grammatically isolated chunk of language that had undergone both gradual category-internal change and automation. Only when another chunk developed, language users could perceive a similarity between the two. At that point a category ‘auxiliary’ arises, which, however, entails no more than that perceived similarity.” (2009: 1751)

19 Fischer (2011: 40) argues that “reanalysis” is a mechanism that linguists can perceive in studying language changes, “but is not something that speakers actually do. Speakers do not reanalyze, they substitute one pattern holistically for another.” Wanner (2006: 150) states: “Analogy is a weak and insecurely activated bond between terms, yet it is the only force available and is present throughout.”

		RELATION TO MODEL	
		Syntagmatic	Paradigmatic
BASIS OF SIMILARITY	Meaning	Semantic analogy	Paradigmatic analogy
	Form	Formal analogy	
	Distribution		

Fig. 3: Types of analogy (copied from De Smet 2013: 69)

4.1 The usage-based model of *analogy* in a nutshell

De Smet’s (2013: 64–71) usage-based model of analogy is the starting point of our claim that the basis for analogy or similarity might be situated at the discourse level.

On the basis of two criteria, viz., the basis of the similarity and the relation to the model, De Smet explicitly distinguishes at least three subtypes of analogy (cf. Figure 3 which is copied in full from De Smet [2013: 69]). The basis of analogy can be a similarity in meaning, form or distribution of the source and the target construction. As to the relation to the model, the similarity can hold either between the environments associated to the spreading pattern (syntagmatic relation) or between the spreading pattern and some paradigmatically related pattern (paradigmatic relation).

According to De Smet (2013: 65), two major subtypes of analogy are to be distinguished, viz., “semantic analogy” and “paradigmatic analogy”. The former is “a mechanism of analogical extension that allows a construction to extend its range of application on the basis of a semantic similarity between the source environment and the target environment” (2013: 65). For instance, at the end of the Late Modern period, the transitive pattern primarily associated with *worth* has extended to the semantically related adjective *worthwhile*, while the extension of the intransitive pattern (originally associated with *worthwhile*) to *worth* “has been triggered by the appearance of *worthwhile* in the same environment” (De Smet 2013: 68). Figure 4 aims to visualize the mechanism of syntagmatic

Fig. 4: Syntagmatic analogy

analogy:²⁰ before the extension takes place, pattern *a* is associated with environment *X*, while pattern *b* exclusively occurs in environment *Y*. Because of the similarity (of any kind) between both source environments *Y* and *X*, *a* may extend to *Y* and *b* may extend to *X*.

The second major subtype distinguished by De Smet (2013), viz., paradigmatic analogy, “involves the extension of a construction from one environment to another on the basis of a link between the spreading construction and some other paradigmatically related construction” (2013: 68). In other words, the range of occurrence of the former construction is extended by simply copying the distribution of the latter (De Smet 2013: 68). The example of morphosyntactic hypercorrection is an evident illustration. Paradigmatic analogy as defined by De Smet thus corresponds to the strict interpretation of analogy (restricted to structural similarities among members of a paradigm, see *infra*) more commonly used in historical linguistics. Figure 5 aims to visualize the mechanism of paradigmatic analogy: before the extension takes place, pattern *a* occurs both in environment *X* and environment *Y*, while pattern *b* exclusively occurs in environment *X*. Because of the similarity (of any kind) between pattern *a* and pattern *b*, pattern *b* may copy the distribution of pattern *a* and extend to environment *Y* as well.

²⁰ The notion of *syntagmatic analogy* might be confusing (we thank the anonymous reviewer for this insightful observation), since the mechanism of *analogy* is considered to operate between two members of a paradigm, while the syntagmatic or horizontal dimension is associated with *reanalysis* in historical linguistics. However, De Smet (p.c.) assumes that *analogy* indeed always presupposes (and operates between) two members of a paradigm, but the similarity can hold both between the members of the paradigm (*paradigmatic analogy*) and between the environments these members are associated with (*syntagmatic analogy*).

Fig. 5: Paradigmatic analogy

At first sight, the outcome of the extension by syntagmatic and paradigmatic analogy may look similar. However, the processes should not be equated at the theoretical level. De Smet (2013: 71, p.c.) argues that the distinction between syntagmatic and paradigmatic analogy is straightforward and particularly useful in theory, yet not always in practice since syntagmatic and paradigmatic motivations for analogy often co-occur. Likewise, the semantic, formal, and distributional subtypes of paradigmatic analogy are not distinguished in Figure 3 since “in practice they are mostly indistinguishable” (De Smet 2013: 69). The same observation holds for paradigmatic analogy and syntagmatic distributional analogy.

In the following section, we will argue that from a usage-based point of view, the discourse integration of a specific pattern or construction can be a basis for similarity relations as well.

4.2 Conceptually-driven analogy: a two-way discourse phenomenon in language use and change

The motivation for the peculiarities of the BQ is to be sought in analogical thinking, both diachronically and synchronically. We will assume in this section that there is more to the analogical processes BQs are involved in than purely formal, paradigmatic analogy. We will suggest that the discourse level is to be taken into account as an additional basis for similarities. As to the development of BQs, we hypothesize that paradigmatic analogy does not occur but motivated by semantic similarity or contiguity relations between the QN and some element(s) of its discourse context. As to the synchronic functional organization of BQs, we claim that the very same principle ensures textual coherence. In what follows, we

essentially dwell on the synchronic dimension. This is not to say that the insights regarding the diachronic evolution of the BQ do not matter, on the contrary. They lie at the basis of our understanding of the variable superposition of quantitative and qualitative meaning layers the BQs are able to convey. We therefore start recalling the main findings in this respect.

4.2.1 Conceptually-driven analogy in language change

Analogical thinking is known to play a central role in the diachronic extension of construction paradigms (cf. Bybee and Eddington 2006; Israel 1996; Vergara Wilson 2009; Wanner 2006). This is also the case for the BQ. As shown by Verveckken (2012a, 2012b), a constructional network model (cf. Traugott 2008b) best captures the development of Spanish BQs. On the one hand, the quantifying reading associated to the binominal pattern extends from *montón de* ‘heap of’ – which appears to be the first QN to have developed a systematic quantifying use – to other QNs. On the other hand, individual QNs are shown to gradually extend their combinatorial pattern to new N2s. Crucially, in both cases of paradigmatic formal analogy (to new QNs respectively new N2s), semantic (paradigmatic) motivations are at stake since the motivation for developing quantifying uses, and increasing the range of nominals over time, is rooted in the conceptual relation the noun bears to other nouns belonging to the same or a closely related cognitive domain. Verveckken (2012a, 2012b) observes that per time period, both the QNs having developed functional uses and, per QN, the range of N2-combinations can be organized in clusters of semantically related nouns. Furthermore, as to the extension of new N2-combinations, the observed clusters of semantically related nouns echo the QN’s source semantics. Analogical thinking and conceptual persistence thus closely interact.

In our view, the tendency for quantifying uses to evolve around semantically similar domains is a clear manifestation of conceptually-driven analogy: the creative potential of the [N1 *de* N2] construction motivated by paradigmatic analogy is limited by conceptual similarity or contiguity relations. For instance, the extension of the BQ to new N2s will not be accepted if the new N2-combination is not somehow compatible with the QN’s original frame.

Perhaps more interesting for our purpose is to recall the observation on example (16) which illustrates that the pragmatic inferences of quantity were at first always contextually embedded, at least for those QNs which developed a productive quantifying use before the end of the 19th century. In other words, while paradigmatic analogy may have been a motivation for the change into a quantifying expression, the driving force has been the discourse integration of the binominal

pattern, i.e., the contextual and pragmatic elements that impose a quantifying inference.

As Fischer (2008, 2011), De Smet (2009, 2013) have repeatedly stated, the mechanism hypothesized to have caused a particular change gains in explanatory strength if it can be shown to be a deep-seated principle relevant in language processing and learning as well.²¹ We will therefore argue in Section 4.2.2 that the same principle is at work in the functional organization of BQs: while N1 and N2 mutually adjust to each other, contextual elements reflect N1's source frame and as such enhance its discourse integration.

4.2.2 Conceptually-driven analogy in language use

In addition to guiding the development of BQs, conceptually-driven analogy operates synchronically as a coherence device. The notion of conceptually-driven analogy refers to the interaction between analogy and conceptual persistence (as stated elsewhere [Verveckken 2012a, 2012b]). More precisely, we will argue in the following paragraphs that:

1. the syntagmatic analogical associations involve the mutual adjustment between N1 and N2 as well as between the entire binominal pattern [N1 *de* N2] and the wider discourse context;
2. the observed similarity/contiguity relations echo the QN's source semantics.

Synchronically, the mutual adjustment between the QN and the N2 involves on the one hand that N1 imposes a specific conceptual image on N2 (as shown in Section 3). The conceptual image of a specific QN is to be interpreted as an image-schematic structure or set of conceptual facets that can be profiled in specific instances. The specific discourse integration of an instance co-determines which (set of) facet(s) is/are highlighted in concrete utterances. Verveckken (2012a) shows that the conceptual images display distinct levels of schematicity: e.g., the conceptual image of *aluvión de* 'flood of' contains facets which are either metaphorically or metonymically related to a literal flood²². If the N2-entities are pictured as arriving "all at once", "all of a sudden" and "overwhelming" the

²¹ Note that Itkonen (1994: 50) and Anttila (2003: 428) characterize *analogization* as an innate faculty or cognitive principle.

²² See also Itkonen's (1994: 44) claim that both the dimensions of similarity and contiguity can be detected in analogy; Fischer's (2011: 38) claim that "[i]n analogy, both iconic and indexical forces are important" and interact; or Anttila (2003: 431) who states that "against the nice dualities like similarity ~ contiguity, metaphor ~ metonymy, icon ~ index, abduction ~ induction,

protagonist, these facets yield a metaphoric conceptualization of *aluvión de N2* (Verveckken 2012: 298). But if a number of N2-entities arrive all of a sudden, one can easily infer that the arrival is “unexpected” or that the N2-entities are “new”: the latter two features are considered more schematic or metonymically related to the *aluvión*-frame. The individual conceptual images thus explain that QNs are not freely interchangeable. Alternation appears to be submitted to quite stringent restrictions: substitutability of *alud* ‘avalanche’, e.g., is limited either to near synonyms such as *aluvión* ‘flood’ or *avalancha* ‘avalanche’, or to very general quantifying nominals such as *cantidad* ‘quantity’, *conjunto* ‘set’ or *serie* ‘series’ (e.g., [38]–[40]). As a result of conceptual persistence, changing the QN alters the conceptualization of N2 at least slightly.²³ The choice would be indifferent if all the QNs would have gone all the way of desemanticization and decategorization, so as to become equivalent to *mucho/a(s)* ‘many, much’. This is not to say that alternation within the QN-paradigm is ungrammatical. Technically, it is perfectly fine for Spanish speakers to say that the company in (38) received *un montón* ‘a heap’, *una barbaridad* ‘a barbarity (an awful lot)’ or *una serie* ‘a series’ of calls. Yet, for reasons of textual coherence, *aluvión* and its near-synonyms are far more appropriate.

- (38) *Los primeros días de enero, fue tal el aluvión [el alud / la avalancha / la cantidad / ?la letanía] de llamadas que sufrió dicha compañía, que llegaron a puntas de 100.000 llamadas en un día, con una media de más de 40.000.*
 ‘The first days of January, the **flood** [the snow slide / the avalanche / the huge number (lit. quantity) / ?the litany] of calls that the abovementioned company suffered, was that high that they reached peaks of 100.000 calls in one day, with an average of more than 40.000.’
- (39) *La sala del 091, la Guardia Urbana, los servicios de Protección Civil de Barcelona y las redacciones de los diarios (“¿qué ha pasado?”) empezaron a recibir un alud [un aluvión / una avalancha / una serie / ?una letanía] de llamadas de ciudadanos preocupados por el intenso temblor que durante casi cinco segundos notaron bajo sus pies.*
 ‘The 091 call center, the urban guard, the Barcelona Civil Protection services and the newspaper editorial offices (“What happened?”) started receiving a

which all match, analogy is a mixed bag; it mixes the two columns as it were. Since the context (the warp) is so crucial, I have called analogy an indexical icon (. . .).’

²³ By contrast, when e.g., nouns such as *alud* and *aluvión* function as head or appear outside the BQ, they keep carrying the full image of, respectively, an ‘avalanche’ and a ‘flood’, and therefore resist being substituted for one another.

deluge [a flood / an avalanche / a series / ??a litany] of calls from citizens worried by the intense quaking they felt under their feet during almost five seconds.’

- (40) “(…) *Si un terremoto comparable se hubiera producido por la noche o en una zona menos poblada, no habiéramos recibido esta **avalancha** [este alud / este aluvión / esta cantidad / ??esta letanía] **de** llamadas”.*

“(…) If a similar earthquake had occurred during the night or in a less populated area, we would not have received that **avalanche** [that avalanche / that flood / that number (lit. quantity) / ??that litany] **of** calls”.’

The conceptually-driven analogical thinking is reflected in the QN-related combinatorial patterns: the QNs analyzed indeed develop particular collocational preferences²⁴ that echo N1’s source semantics. To mention but a few typical N2-combinations: *letanía de* ‘litany of’ evokes boring repetitiveness in a chain of events or enumerations²⁵, *hatajo de* ‘herd of’ bundles gregariously behaving persons, generally disapproved of by the speaker (cf. [21], [22]); *alud de* ‘avalanche of’ shows a strong preference for N2s which can be conceived of as a dynamic antagonistic force and generally combines with ‘problems’, ‘criticisms’ or ‘telephone calls’ (cf. [39]); *pila de* ‘pile of’ combines with stackable objects or entities which can somehow be ordered: next to objects made of paper, such as books, magazines, sheets, that pile up vertically and can be taken as artifacts or for their informative content (cf. [10]), we also find metaphorical extensions to time units such as days, months, years (cf. [17]); *montón de* ‘pile, heap of’ simply presents an indefinite multiplicity of any kind of entities as disorganized, jumbled or muddled (cf. [5] and [29]), its most frequent N2-collocate is the highly vague notion *cosas* ‘things’; etc.

Yet there is more to the conceptually-driven (syntagmatic) analogy than the combinatorial preferences of each QN. By focusing exclusively on the constraints N1 yields on the host-class expansion towards new N2s, the analysis of the BQ remains one-sided and does not do justice to the role played by N2. The mutual adjustment between N1 and N2 involves on the other hand that the latter is at least as crucial as that of N1, not only because inside the BQ, N1 and N2 are inextricably paired up, but also because in the wider context the profile of N2 is

²⁴ Since the collocational pattern is thus conceptually motivated (and to some extent predictable), we prefer the notion of collocational or combinatorial “preferences” to “constraints” or “restrictions”.

²⁵ In view of its collocational preferences, *letanía* ‘litany’ is unlikely to appear in contexts such as those of (38)–(40). Its unnaturalness is signaled by the double question mark.

more prominent than that of N1. Recall that in the functional uses of BQ, N2 functions as the head of the construction and conveys the essential information (cf. the string [*un QN de*] can be left out easily without ungrammaticality effects). As a consequence, certain N2s may even show strong preferences for a specific QN, or at least a specific type of QN (without resulting in semi-lexicalized expressions such as *un enjambre de abejas* ‘a swarm of bees’). Nouns such as *críticas* ‘criticisms’, *llamadas* ‘calls’, *protestas* ‘protests’, etc., which by their very nature refer to entities which (generally) arise as a negative *re*-action, will prefer QNs such as *alud* ‘avalanche’ or *aluvión* ‘flood’. By way of comparison, the combination with the remaining QNs analyzed (*hatajo* ‘herd’, *tropol* ‘mob’, *letanía* ‘litany’, *racimo* ‘bunch’, *pila* ‘pile’) is not found in the CREA-corpus. In addition, the corpus search for the string ‘*de críticas*’ yields almost exclusively combinations with the overwhelming nature phenomena *aluvión* ‘flood’, *alud* ‘deluge’, *lluvia* ‘rain’, *avalancha* ‘avalanche’, *torrente* ‘torrent’, *ola* ‘wave’, *oleada* ‘huge wave’, *chaparrones* ‘downpour, cloudburst’, *tormenta* ‘storm’ and *marejada* ‘heavy sea, swell’. Similarly, the query ‘*de preguntas*’ ‘of questions’ returns *batería de preguntas* ‘a battery of questions’ as preferred combination yielding 25 instances (next to absolute quantifiers or general QNs such as *serie* ‘series’ (with 63 occurrences) or *par* ‘pair’ (with 15 occurrences). It further almost exclusively combines with N1s that evoke four kinds of image: horizontal alignment (e.g., *retahíla* ‘string’, *sarta* ‘string’, *madeja* ‘hank’, *cadena* ‘chain’), violent attack (*tiroteo* ‘shooting’, *bombardeo* ‘bombing’, *andanada* ‘broadside’), dynamic nature phenomena beyond human control (*mar* ‘sea’, *ola* ‘wave’, *chaparrón* ‘downpour’, *avalancha* ‘avalanche’, *aluvión* ‘flood’), or N1s evoking a mess (*montón* ‘heap’, *laberinto* ‘labyrinth’, *maraña* ‘tangle’). These N1s bring to the fore the confronting, relentless, unstoppable, confused, often antagonistic and even aggressive nature of the N2 ‘*preguntas*’, thus profiling the (face) threatening dimension of the questioning. It bears pointing out that not all N2s by themselves call for a specific QN. Less emotionally loaded nouns or less specific nouns such as *personas* ‘persons’, which do not evoke but very general frames, can of course combine with a wide range of QNs.²⁶ It goes without saying that N2s preferably combine with N1s that present a maximum of shared conceptual facets.

²⁶ However, native speakers are not necessarily aware of the co-selection tendencies: M^a Esperanza Torrego Salcedo suggests (p.c.) that the choice for a specific metaphorization is unstable and that variation proliferates in the mass media. It is striking though that in CREA, the more specific and highly metaphoric QNs (such as *aluvión* ‘avalanche’, *letanía* ‘litany’ etc.) almost exclusively show up in written data. The QNs observed in oral data are the more conventionalized and general ones, such as *mogollón* ‘heap, mess’ and *montón* ‘heap, lot’.

The previous finding thus provides evidence for the *mutual* or two-way adjustment between both nominals: not only does N2 accommodate to the conceptual image imposed by N1 (cf. the distinct conceptualizations of *gente* in (41)–(44)),²⁷ the selection of the appropriate N1 is partially determined by N2. In other words, the conceptually-driven analogy is a two-way mechanism that goes in both directions. In the remainder of this section, we will show that the discourse level should be incorporated as an additional level of similarity/contiguity relations²⁸: we will illustrate that the mutual adjustment does not only hold between N1 and N2, but also between the binominal construction as a whole and the wider discourse context.

- (41) *Usted mismo ha mencionado antes los liberales, después está la ultra derecha, la ultra izquierda, los anarquistas, un **montón de gente**.*

‘You yourself mentioned the Liberals previously; then there is the extreme right-wing, the extreme left-wing, the anarchists, a lot of people.’

- (42) *Aproveché para mirar mi agenda, cosa que rara vez hago y, como siempre que la examino, me di cuenta de que había un **montón de cosas** que debía haber hecho esa semana que no hice y una **pila de gente** a la que debía haber llamado y no llamé, con lo que he quedado fatal para siempre.*

‘I took the opportunity to look at my diary, something I rarely do and, as always when I check it, I realized that there were a lot of things that I should have done this week which I hadn’t done, and a **lot of** (lit. pile of) people that I should have called (but) whom I didn’t call.’

- (43) *A partir de las 9.30 de la noche un **aluvión de gente** importante comienza a invadir la casa.*

‘From half past nine p.m. onwards a **flood of** important people started invading the house.’

²⁷ In (41), the people are simply brought together as *montón* ‘heap’, i.e., without any structuring principle. In (42), they are serially ordered in an appointment diary. In (43), the predicate *invadir* ‘invade’ instantiates a dynamic view and the context of (44), viz. the combination of the predicates signaling sudden irruption (*Súbitamente irrumpe*) and commandment (*capitaneado*), invites to interpret the scene in terms of the typical behavior of an authentic *tropel* ‘mob’.

²⁸ In the importance we attribute to the discourse level and specific discourse integration of extending patterns, we feel supported by Boye and Harder’s (2012) focus on “discourse prominence” in the new, usage-based definition of grammaticalization they propose. The central idea is that “grammar is constituted by expressions that by linguistic convention are ancillary and as such discursively secondary in relation to other expressions – and that grammaticalization consists in the diachronic change that leads to such expressions.” (2012: 2)

- (44) *El PRÍNCIPE se halla acostado y duerme. Arde la chimenea. Súbitamente irrumpe en su cámara un tropel de gente capitaneado por el propio REY, que se cubre la cabeza con un casco y lleva debajo del jubón de raso negro una coraza; la espada en la mano y el gesto altivo y regio.*

‘The prince is lying down and asleep. The chimney is burning. Suddenly a **mob of** people burst into his room, commanded by the King himself who is covering his head with a helmet and wearing a cuirass under his doublet of black satin; his sword in his hand and his gesture arrogant and regal.’

First of all, the conceptual integration of N1 is generally enhanced by contextual cues that evoke N1’s source semantics. In (44), the contextual evidence of the conceptual persistence is manifold: the initial adverb *súbitamente*, the predicate *irrumpe*, the participle *capitaneado*, and the hierarchical relations evoked by the scenery (the king and the prince versus the ordinary man in the street) are all congruent with the image of a mob. The contextual cues thus testify to the impact *isosemy*, i.e., conceptual convergence, between N1 and one or more elements of the surrounding context, can have on the conceptualization of N2. By *isosemy* we mean the recognition of conceptual affinity between two or more elements of the same discourse context (cf. Pottier 1998, 2008)²⁹. As discourse goes along, the co-occurrence of lexical elements that share one or several meaning components with N1 enhances the relative prominence of these components in the frame evoked by the discourse fragment they are part of.³⁰ As they

²⁹ We do not consider *isosemic* relations prescribed by the functional system of the language (e.g., agreement, government). Following Pottier (2008: 402), we are concerned with *isosemic* relations that manifest themselves in the lexical choices. We hereby adopt a broad definition that is not restricted to widely recognized analogs (e.g., ‘splendor’, ‘luxury’, ‘glamour’) or conventional equivalences registered in the dictionaries yet includes both similarity and contiguity relations. *Isosemy*, as envisaged here, includes conceptualizations that are perceived as (partially) convergent within a given script or event frame.

³⁰ The notion of *frame*, borrowed from Fillmore (1975, 1982, 1985), has been redefined by many others (Lakoff 1987, Ungerer and Schmid 1996). It referred initially to “any system of linguistic choices – the easiest being collections of words, but also including choices of grammatical rules or linguistic categories – that can get associated with prototypical instances of scenes” (Fillmore 1975: 124). In later publications (Fillmore 1985: 223), the notion of *scene* received a more cognitive (rather than linguistic) interpretation. In line with Fillmore and Atkins (1992: 75), we use the notion of frame in the sense of “cognitive structure”, i.e., the experiential knowledge or set of concepts, activated by an item in the speaker’s mind, so that to understand the item one has to relate it to the set or system in question. N1s with a high degree of conceptual persistence often co-occur with lexical items belonging to the same frame (i.e., the frame evoked by N1 as a lexical item), which as a consequence enhance the degree of conceptual persistence (e.g., the frequent

contribute to the conceptual integration of N1, they enhance its degree of conceptual persistence. In other words, N2 and the wider context co-determine which facet(s) of N1's conceptual image get highlighted in the functional uses.

Yet there is more to it. The mutual accommodation between N1 and N2 and the wider context can be shown to operate at discourse level, to the extent that the choice of N1 can be claimed to function as a coherence device. From a discourse perspective, it is the kind of profile the speaker wants to convey of the N2 entities that guides the choice of N1, not the other way around. By way of illustration, without further context, the combination of the QN *un aluvión de* 'a flood of' and the concrete noun *páginas web* 'web pages' which is completely devoid of animacy, is highly marked. Yet in (45), several contextual cues make for a perfect fit: the sudden emergence of new web pages is said to reflect the intense boom of alternative medicine that has crushed several zones of the country. Since those properties attributed to the web pages clearly match the source semantics of *aluvión de*, the latter QN is a fully coherent choice in that particular discourse context. The source semantics of N1 thus interacts with the discourse context and contributes to the overall semantic congruence. Similarly, although many QNs would be grammatically correct in (46), *barbaridad* 'barbarity' is totally appropriate in terms of contextual coherence, for two reasons at least: (1) several contextual cues, i.e., *abusiva*, *afrenta*, *no debían ser*, etc., refer to the transgression or violation of a norm or social standard; (2) etymologically, *barbaridad* stems from the ancient Greek and Roman notion of 'barbarians' which refers to foreigners, often considered 'uncivilized' in the ancient empire. The context of (46) also pictures the protagonist as a tourist in London, who, in spite of the guide, does not manage to conform to the norms. Although the enhanced coherence is particularly striking in (46), native speakers need not of course be aware of the etymologies.³¹ In other words, the similarity/contiguity relations that hold between a specific [N1 *de*]-pattern and the new N2-combination to which it extends can be ensured at discourse level only. If the specific discourse integration of *páginas web* in (45) and *propina* in (46) would not be taken into account, those N2-combinations would be incorrectly considered as not corresponding to the N1-frame.

combination of *alud/aluvión* with the adverb *de repente* 'all of a sudden', which profiles the sudden character associated to literal avalanches/floods).

31 Note also that some QNs may have multiple source constructions or etymologies. By way of illustration, *hatajo* is associated both to a bundle of clothes and to the verb *atajar* 'to take a short-cut, to intercept, to cut something out' (cf. Corominas and Pascual [1991(3): 326–328]).

- (45) *Tras arrasar en Estados Unidos, la medicina alternativa extiende sus tentáculos en España. (...) Al otro lado del Atlántico, el boom es de tal calibre que en algunas zonas del país cerca del 50% de los pacientes recurre a estas prácticas. (...) Como era de esperar, Internet también refleja este interés social, con un verdadero aluvión de páginas web sobre muchas de las medicinas alternativas.*

'After crushing in the United States, alternative medicine extends his tentacles to Spain. (...) At the other side of the Atlantic, the boom is of such caliber that in some zones of the country, nearly 50% of the patients turn to those practices. (...) As was only to be expected, the Internet also reflects this social interest, with an authentic flood of web pages on many of the alternative medicines.'

- (46) *Pagó a regañadientes la abusiva nota del té completo dejando incluso una propina excesiva para aliviar de algún modo la afrenta de aquella situación. Pansy le regañó al salir. En la guía Fodor's había leído que las propinas en Londres no debían ser superiores en ningún caso al 15 por ciento suponiendo que no estuviera ya incluida en la factura. Y él había dejado una **barbaridad de** propina que podría haberse destinado a la compra de otra jarrita del té (...).*

'He paid unwillingly the unfair bill of the tea, while including an excessive tip to relieve somehow the embarrassment of that situation. Pansy quarreled with him when leaving the place. She had read in the Fodor's guide that in London, gratuities should in no way exceed 15 per cent, assuming that it is not yet included in the bill. And he had left a **barbarity of** a tip that would have sufficed to buy another jug of tea.'

To conclude, conceptually-driven analogy is a discourse-based and two-way mechanism, as visualized in Figure 3. The conceptually-driven analogical thinking thrives on the principle of 'isotopy'³² (Kerbrat-Orecchioni 1979, Rastier 1987), i.e., the speaker's urge to construe a maximally coherent discourse by means of the recurrence of a single conceptual domain (or mental space, *infra*) in several linguistic elements. Although the conceptual image introduced by N1 serves to profile N2, this occurs in convergence with surrounding elements that further enrich the picture. Beyond isotopy, the two-way interaction yields *mutual adjust-*

³² The notion of isotopy raises the congruence implied by isosemy to the discourse level. The principle of isosemy is rather associated with the conceptual congruence between specific linguistic elements. Isotopy designates the conceptual congruence or cohesion within an entire sequence or discourse.

Fig. 6: Conceptually-driven analogy: two-way and discourse based

ment between N1 (or the entire binominal construction) on the one hand and N2/ the discourse context on the other. Cognitively, the mental spaces or conceptual images of N1 and of N2, together with the discourse context, are blended into a single, convergent frame (Fauconnier and Turner 1998, Sweetser 1999). In other words, the original images are only partially projected in the resulting frame: only those conceptual facets of N1 that can be made to accommodate to the frame of N2 are picked out and shade through in the grammaticalized reading, and conversely. As a consequence, the final conceptualization of a specific BQ depends on the precise context of the specific utterance – which is in line with the emergent nature of meaning assumed in cognitive semantics. Distinct QN-occurrences thus profile distinct selections of facets within the QN-space (cf. the contrast between [19] and [20]). It goes without saying that the discrepancies are more salient with QNs presenting a rich source semantics (e.g., *aluvión*) than with QNs such as *pila* ‘pile’ which primarily encompass configurational facets.

Figure 6 aims to visualize our interpretation of conceptually-driven analogy. On the one hand, the mutual adjustment between N1 (/the entire BQ) and the N2 (/the wider discourse context) involves the conceptual image N1 imposes on N2 and the resulting combinatorial constraints or preferences N1 develops. On the other hand, the N2 and the specific discourse integration of the BQ co-determine not only which conceptual facets of the QN’s conceptual image are activated, but also which QN is the most appropriate and coherent choice in a specific context.

The fact that the meaning structure of the (relatively) grammaticalized QNs continues to have a meaningful import on the construal of quantity assessment and impacts the overall coherence of the context, might explain why the grammaticalization of the BQ-construction – or some highly specific QNs in particular – seems to be ‘on hold’: as the (partial) activation of the QN’s source semantics plays a major role in the functional uses of N1, the N1 is not likely to desemantize completely. Grammaticalized items may thus continue to have a meaningful

import. Further, since the morphosyntactic behavior of the construction is shown to be conceptually and discourse-pragmatically determined, the conceptually-driven analogy counteracts the QN's formal decategorialization as well.

5 Conclusion

This paper set out to illustrate the importance and conceptual nature of analogy in the development of quantifying nouns into binominal quantifiers. Analogical thinking and conceptual persistence are shown to closely interact and to provide the N1 with the necessary quantifying potential for the reanalysis into quantifier. At the same time, this conceptually-driven analogy is shown to result in partial formal persistence of BQs and is further characterized as a two-way discourse principle.

The concluding section therefore rounds off by addressing some theoretical repercussions of this descriptive study for grammaticalization research. More precisely, we will point out how the case-study on binominal quantifiers in Spanish reconsiders the role of “analogy,” how it challenges the importance recently attributed to the “context” of grammaticalizing items and, finally, how it refines the notion of “lexical persistence.”

Over the last ten years, studies on grammaticalization inspired by the usage-based and construction grammar insights, became increasingly interested in the notion of “analogy” (De Smet 2012, Fischer 2007, Wanner 2006). Accounts trying to reconcile low token frequency with grammaticalization processes (Bybee 2007, Hoffmann 2004, Traugott 2008), for instance, explain the lack of routinization processes in terms of low-frequency constructions that engage in grammaticalization via analogical thinking with highly frequent “structural relatives” (Hoffmann 2004: 195). In Hoffman's account, the grammatical status of the extremely infrequent complex preposition *by dint of*, for instance, is considered to reflect a process of grammaticalization based on analogy with the highly frequent *in front of*. The case-study of Spanish binominal quantifiers indeed confirms the crucial role of “paradigmatic” analogical thinking (Bybee and Eddington 2006, Vergara Wilson 2009): diachronically, the quantifying uses evolve around semantically similar domains (Verveckken 2012a), which continue the original literal use of the first noun and determine later collocational restrictions. Yet the case-study also highlights the importance of similarity/contiguity relations between the extending construction and its environment and distinguishes the discourse level as an additional basis for similarity. The role played by N2 and by the precise discourse integration is at least as crucial in the grammaticalization of (low-frequency) binominal quantifiers, as N2 and the frame activated in

the context narrow down the choice of suitable N1s and determine the degree of conceptual image persistence displayed by the QN.

This leads us to the second theoretical implication of our case-study, viz., the role played by the context. Research in grammaticalization theory focuses mainly on the “triggering” role of the context (Diewald 2006; Traugott 2003): in the pre-grammaticalization stage, highly specific pragmatic and morphosyntactic characteristics of the surrounding context may yield “bridging contexts”, i.e., occurrences which allow for a literal and a grammatical reading simultaneously and make reanalysis possible. Our case-study then extends the importance of the context to the post-initial stage. Not only are the specific contexts for quantifying and (two-way) specifier readings quite constrained at different levels of specificity (see also Brems 2010), the context of quantifying nominals, and N2 in particular, while accommodating to the meaning structure of N1, also co-determine the conceptual image persistence the N1 is apt to display. More importantly, there appears to be mutual adjustment between the grammaticalizing item and its host-class as well as its morphosyntactic and semantic-pragmatic context. The specific discourse integration of N2 may even force a speaker to opt for a particular N1, to the extent that this choice may function as a coherence device. We have also suggested that the mutual adjustment between N1 and the discourse context (including N2) is responsible for the “break” or the hesitant nature of the grammaticalization process the BQ is involved in.

The third repercussion of our analysis regards the notion of “lexical persistence”, which we prefer to interpret as a conceptual phenomenon. From the grammaticalization of BQs in Spanish it appears that conceptual persistence varies in two respects: not only in degree, but also in the particular conceptual facet(s) primarily associated with N1 as a lexical item that shade(s) through in the grammaticalized reading. Both the degree of conceptual persistence and the selection of particular facets of the QN’s source semantics are co-determined by the (degree of) conceptual convergence between N1 and one or more elements of the surrounding context. The more surrounding lexical items allude to the literal frame of N1, the higher its conceptual integration and the more coherent the sentence it forms part of. From a formal perspective, conceptual persistence is mirrored in the co-selection pattern of N1 regarding adjectival modification, determiner variation and verb agreement. The phenomenon of conceptual persistence is further intrinsically linked with the set of combinatorial restrictions N1 imposes on N2: by virtue of the iconic linearity principle, N2 adapts its conceptualization to the image previously evoked by N1. Finally, it bears pointing out that conceptual persistence operates at discourse level (cf. the principle of *isotopy* in French structuralist semantics). In other words, in search for a maximally coherent discourse, the speaker opts for QNs which are congruent with the

surrounding context. In their turn, QNs develop specific combinatorial preferences or tendencies. It is important to note that neither the influence and importance attributed to the context in the descriptive study nor the systematic tendency of QNs towards persistence are to be seen as a correlate of lesser grammaticalization. On the contrary, quantifying and (two-way) specifier uses are unequivocally less concrete, more subjective, and more operator-like than the literal reading of N1 as a lexical item. The main contribution of this paper probably resides in the underlying functional explanation it provides for conceptual persistence and for the issue of why some processes of grammaticalization seem to be kept “on hold”.

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