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## Location, existence, and possession: A constructional-typological exploration\*

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### Abstract

*The semantic space LOCATION–EXISTENCE–POSSESSION has been investigated from different perspectives since Lyons 1967. In this paper it is first accurately redefined (Section 2) so that it constitutes an operative onomasiological grid for lexical and constructional typological research. Patterns of joint expression of categories and of clear distinction of categories are examined over significant subparts of the relevant semantic space (Sections 2.3/3.1: POSSESSION corresponding e.g., to E. The boy had a book; THEMATIC LOCATION: E. The book was on the table; RHEMATIC LOCATION: E. There was a book on the table; BOUNDED EXISTENCE: E. There are many lions in Africa; (GENERIC) EXISTENCE: E. There are many unhappy people). This research is conducted on the basis of an initial 19-language sample (Section 3.2 and Appendix B), which, despite its bias towards Europe and Africa, yields very interesting observations concerning crosslinguistic tendencies and the effects of genetic affiliation, and areal proximity. Since for the typology of this field it is not only the verbal lexical item that counts, but the whole construction (in some languages even with zero copula), adequate tools for a constructional typology have to be developed in terms of inheritance links inspired by Construction Grammar (Section 4). In the central sections of the paper, crosslinguistic patterns of inheritance and of clear distinction of categories within the semantic space are analyzed with respect to the target concepts POSSESSION (Section 5), LOCATION (Section 6), and EXISTENCE (Section 7). On the semantic level the relevant links are all metonymic or at least contiguity-based. From the detailed analyses several interesting crosslinguistic, but also areal tendencies can be gathered (Section 8.1). A general hypothesis about the domain LOCATION + EXISTENCE emerges: languages either opt for informational salience, opposing THEMATIC LOCATION to the (rhe-matic) rest, or for propositional salience, opposing (generic) LOCATION to EXISTENCE, or they dismiss both types of salience, linking (generic) LOCATION and EXISTENCE directly to each other. As a conclusion, three interesting methodological and theoretical issues are addressed: the non-necessary congruence between*

synchronic patterns and diachronic paths (Section 8.2.1), problems of the conceptual grid in the realm RHEMATIC EXISTENCE/RHEMATIC LOCATION (Section 8.2.2), and the utility of an account in terms of constructional typology (8.2.3).

## 1. Introduction

French learners of German often make a typical mistake, producing sentences like (1). No doubt the starting point in their mother tongue was something like (2):<sup>1</sup>

- (1) German  
*\*auf dem Tisch gib-t es ein Buch*  
 upon DEF.M.DAT.SG table give-3SG it INDEF.N.NOM.SG book  
 'There is a book on the table.'
- (2) French  
*il y a un livre sur la table*  
 3SG there have.PRS.3SG INDEF.M.SG book upon DEF.F.SG table  
 'There is a book on the table.'

In fact it is correct to translate French (3) into German (4), which suggests an equivalence French *il y a* ~ German *es gibt* (both 'there is' in this case). But instead of (1), only (5) would be correct, where German *sein* 'be' (5) clearly stands out against *es gibt* (4).

- (3) French  
*il y a beaucoup de gens malheureux*  
 3SG there have.PRS.3SG much of people-PL unhappy  
 'There are many unhappy people.'
- (4) German  
*es gib-t viel-e unglücklich-e Mensch-en*  
 it give-3SG many-M.ACC.PL unhappy-M.ACC.PL man-PL  
 'There are many unhappy people.'
- (5) German  
*auf dem Tisch ist / liegt ein Buch*  
 upon DEF.M.DAT.SG table be.PRS.3SG / lie-3SG INDEF.N.NOM.SG book  
 'There is a book on the table.'

Obviously the mistake in (1) is a kind of over-generalization based on the make-up of a given conceptual domain in the French language. However, this is not an idiosyncratic question concerning just the difference between two languages. The example points to fundamental typological problems raised by

the semantic space LOCATION–EXISTENCE–POSSESSION, whose internal conceptual structure we shall specify in Section 2. In Section 3 we shall report an onomasiological inquiry using a set of test sentences (3.1) which will help us to find out the typologically relevant options present in our language sample (presented in 3.2 and Appendix B). At first glance problems like those exemplified in sentences (1)–(5) seem to be lexical in nature, concerning only the verbal element (in bold-face). But on closer inspection we understand that entire constructions, including, of course, verbal items, are at stake here. So we must elaborate the prerequisites for a “constructional” typology of the semantic space under examination (Section 4). Indeed, the constructional-typological investigation into the concepts POSSESSION (Section 5) and, above all, LOCATION (Section 6) and EXISTENCE (Section 7) will reveal, in the languages of the sample, a number of crosslinguistic patterns of *constructionalization* involving links between the three concepts as well as striking conceptual distinctions (Section 8.1). The focus of this paper will be on the domains of LOCATION and EXISTENCE, as far as the material is concerned, and, from the theoretical and methodological point of view, on the typological tenets of a constructional approach as well as on fundamental problems of lexical and constructional typology (Section 8.2).

2. LOCATION, EXISTENCE, and POSSESSION

In his seminal (1967) paper John Lyons draws our attention to interesting interactions between some very elementary predicates, such as *have, be, there is*, etc. that can be observed crosslinguistically. These ideas have been taken up by several other linguists like Clark (1978) and Bickerton (1981: 244–246), who puts forward a kind of semantic space like in Figure 1:

<b>OWNERSHIP</b>	<b>LOCATION</b>
<b>POSSESSION</b>	<b>EXISTENCE</b>

Figure 1. *Semantic space OWNERSHIP–POSSESSION–LOCATION–EXISTENCE (after Bickerton 1981: 245)*

These four categories can be illustrated to a first approximation by the following English examples (for a more detailed discussion of the categories see 2.1. and 2.2.):

(6) <i>The book is the boy's</i>	OWNERSHIP
(7) <i>The boy has a book</i>	POSSESSION
(8) <i>The book is on the table</i>	LOCATION
(9) <i>There is a book</i>	EXISTENCE

Bickerton's central claim, based on evidence given by Clark, is that only adjacent areas of Figure 1 can display joint lexicalization<sup>2</sup> in a given language. Thus, as shown in Figure 1, English *be* covers the categories OWNERSHIP (6), LOCATION (8), and — depending on the interpretation chosen (see Sections 6.3 and 8.2.2) — EXISTENCE (9), whereas POSSESSION is lexicalized separately by *have*. In Brazilian Portuguese we find a completely different pattern, with another adjacency relation, namely the one between POSSESSION (11) and EXISTENCE (13), which seems to account for the joint lexicalization (by *ter*), whereas OWNERSHIP (10: *ser*) and LOCATION (12: *estar*) both have separate lexical expressions.<sup>3</sup> Further patterns are possible (Wilson 1983: 9).

- (10) Brazilian Portuguese  
*o livr-o é do rapaz*  
 DEF.M book-M be.PRS.3SG of.DEF.M boy  
 'The book is the boy's.'
- (11) Brazilian Portuguese  
*o rapaz tem um livr-o*  
 DEF.M boy have.PRS.3SG INDEF.M book-M  
 'The boy has a book.'
- (12) Brazilian Portuguese  
*o livr-o est-á sobre a mes-a*  
 DEF.M book-M be-PRS.3SG upon DEF.F table-F  
 'The book is on the table.'
- (13) Brazilian Portuguese  
*tem um livr-o*  
 have.PRS.3SG INDEF.M book-M  
 'There is a book.'

This kind of difference is not merely idiosyncratic. As already suggested by Clark (1978), the question of joint lexicalization within the above semantic space — and of divergent patterns of (joint) lexicalization as well — has a great typological potential. Nevertheless, the categories represented in Figure 1 raise several problems:

- (i) The category symmetry suggested by the figure cannot be taken for granted.
- (ii) It is not quite clear what "adjacency" means. Joint lexicalization of nonadjacent categories does not seem to be completely excluded, and

not every theoretically possible adjacency solution is really attested (Wilson 1983: 8–11). But all this depends just on the category symmetry represented in Figure 1.

We will come back to (ii) in 8.2.3. As to i., the equation (6) : (7) = (8) : (9) is tempting at first glance. However, problems arise with POSSESSION (6) and OWNERSHIP (7) on the one hand (2.1) and with LOCATION (8) and EXISTENCE (9) on the other (2.2). The issue of POSSESSION will be indispensable for the understanding of central patterns in our field of investigation, but the focus of this paper will be on EXISTENCE and LOCATION.

### 2.1. POSSESSION and OWNERSHIP

POSSESSION, i.e., the relation between a POSSESSOR and a POSSESSEE, is a complex concept, which displays considerable internal semantic variation (Fillmore 1968; Miller and Johnson-Laird 1976: 558–565; Seiler 1983; Langacker 1995; Chappell and McGregor 1996; Heine 1997: 10–16, 33–41; Clancy 2000: 131–136; Stassen 2009: 15–25). As is well known, we have to distinguish several subtypes of POSSESSION: *physical*, *accidental/temporary*, *inherent/permanent* (i.e., ownership in a legal sense), *inalienable*, *abstract*, etc. These semantic subtypes can be expressed by a variety of possessive constructions in language, such as attributive or predicative possessives, external possessor constructions, etc. (Heine 1997: 25–33; König 2001; Koptjevskaja-Tamm 2001; Stassen 2001, 2005a, 2009: 26–28). Characteristic affinities between semantic subtypes and constructions can be observed. For our purpose it is of special interest that the so-called ‘belong’-construction (6) expresses mostly or even exclusively ownership. It has been suggested that this is the crucial difference from the ‘have’-construction, which is said to express possession (7) (Watkins 1967: 2193–2194 and Bickerton 1981: 244–246). But first of all, this is logically inconsistent, because, as we have seen above, ownership is only one subtype of POSSESSION, namely inherent POSSESSION. Second, the ‘have’-construction (7) is precisely characterized by the fact that it covers *several* subtypes of POSSESSION (Heine 1997: 32–33). Thus sentence (7) can mean that the boy has the book in his hands (physical), that he has only borrowed the book (accidental), and *even* that he is the owner of the book (ownership). From this perspective then, the relation that holds between the two constructions is inclusive rather than exclusive.

Nevertheless, they are not identical semantically. Searching for their actual difference, we find what is often treated as the pragmatic structure of the sentence but what can be more precisely called *information structure* (see also Seiler 1983: 56; Weiss and Raxilina 2002: 174–175; Stassen 2009: 28–30).

When monitoring the information flow in the 'have'-construction (7), the speaker and the hearer move from the POSSESSOR to the POSSESSEE. In the 'belong'-construction (6) they move from the POSSESSEE to the POSSESSOR (Seiler 1983: 61).<sup>4</sup> Consequently Hengeveld (1992: 120, 125–126) speaks of "presentative possessive" for (7) and of "non-presentative possessive" for (6). In the terminology that I will use in the following (inspired by developments of the Prague school approach),<sup>5</sup> our term will be RHEMATIC POSSESSION for (7) and THEMATIC POSSESSION for (6). Just as we will see for LOCATION in 2.2, there are secondary effects upon the (in-)definiteness of the participants (Heine 1997: 30).<sup>6</sup> Information structural considerations can even explain why THEMATIC POSSESSION has a preference for ownership. When ownership is disputed in dialogue, it is the POSSESSOR that has to be stressed (and, hence, to be put in a rhematic position). In contrast, when physical or accidental POSSESSION are disputed, it is rather (the existence of) the POSSESSEE that has to be stressed and put in a rhematic position.

## 2.2. EXISTENCE and LOCATION

On closer inspection the form given in (9) in Figure 1 is revealed to be ambiguous, as illustrated by the following possible expansions of the English construction containing *there is/there are*:

- (14) *There are many lions in Africa*  
 (15) *There is a book on the table*

(14) is a predication concerning EXISTENCE, whereas (15) is a predication of LOCATION answering to the question *What was on the table?* Let us provisionally call sentences like (15) "R-locational" (for a more comprehensive systematics of locationals see below in this section). Hengeveld (1992: 118–121) underlines that it is insufficient to label sentences of this kind merely as 'existential' (which is very common in the literature). In fact, (15) does not only introduce an entity into the discourse (*a book*), as do real existential sentences like (14), but also presents it as a LOCATED with respect to a LOCUS (*on the table*). This difference may not seem obvious, because both sentences display essentially the same expression *there is/there are* and the same syntactic form comprising a subject S ((14): *many lions*; (15): *a book*) and a locative adverbial (LOCA): (14) *in Africa*; (15) *on the table*). Nevertheless, we can discern interesting semantic differences between these two types of predications.

In (14) the EXISTENCE of lions is explicitly asserted within the universe of discourse. The referential value of the EXISTING ENTITY is typically [generic] or [indefinite, nonspecific], as for *many lions* in the present case. The LOCUS, as *in Africa*, only specifies the local area of validity of the statement of EXISTENCE.

This specification of the LOCUS is even optional, as can be gathered from the comparison between the English sentences (16) and (17):

- (16) *There are many unhappy people in Africa*  
 (17) *There are many unhappy people*

Consequently, with respect to the category EXISTENCE as a whole, the LOCUS does not constitute a participant in the strict sense (EXISTENCE predicates are one-place predicates), but rather an external condition. So (14), (16) and (17) are all cases of EXISTENCE. In the following, an existential predication that contains a specification of the LOCUS, such as (14) or (16), will be called a predication of BOUNDED EXISTENCE. In contrast, existential sentences without an overt LOCUS, such as (17), will be considered as cases of *generic* EXISTENCE (Koch 1999a: 283, 2006: 4–5).<sup>7</sup>

The situation is quite different in R-locational sentences, such as (15). What is explicitly asserted here is not the existence of a book (within a particular local area of validity), but the LOCATION of a particular book. Consequently, the LOCUS, *on the table*, is an internal, obligatory participant of the predication, because you cannot locate an entity without referring to a LOCUS. In predications of LOCATION the existence of the LOCATED (within the universe of discourse) is not asserted, but only taken for granted. It may be taken for granted, as in (15), by the speaker alone. In this case the referential value of the LOCATED, *a book*, is [indefinite, specific], which corresponds to the most typical pattern. But, albeit more rarely, the existence of the LOCATED may also be taken for granted by both the speaker and the hearer, which means that its referential value is [definite], as illustrated by *the dog* in (18):

- (18) *There's the dog in the garden*  
 (Hengeveld 1992: 118)

The difference between existential and R-locational predications can be underpinned by a negation test. So the switch to a negative determiner in the NP that expresses the EXISTING ENTITY transforms a positive existential statement simply into a negative one, but the existential character of the predication remains intact ((19), (20)):

- (19) *There are unhappy people in Africa* → *There are no unhappy people in Africa*  
 (20) *There are unhappy people* → *There are no unhappy people*

Indeed you can deny without any problems the existence of an entity, specifying (19) or not (20) the local area of validity of the statement. On the contrary, the switch to a negative determiner in the NP that expresses a LOCATED transforms a positive R-locational statement into a negative *existential* statement ((21), (22)):



(21) *There is a book on the table* → *There is no book on the table*

(22) *There's the dog in the garden* → *There's no dog in the garden*

You actually cannot locate an entity that does not exist within the given local area. The negative referential value is incompatible with the value [specific] (21) or even [definite] (22) of a LOCATED NP. The only thing you can do is to assert the nonexistence of an entity of the kind in question within the respective local area of validity. The contrast between the behavior of (19)/(20) and (21)/(22) points to a non-negligible semantic difference that we can reasonably capture in terms of EXISTENCE VS. LOCATION.

All in all, the difference between existential and R-locational predications is discernible in English, though not formally visible. What is interesting in the context of the present paper is the fact that, unlike English and many other languages, there are some languages which explicitly distinguish the described types of existential and R-locational predications. Somali is a case in point. It expresses R-LOCATION by *aalli* with the allomorph *yaall-* (23), as opposed to BOUNDED EXISTENCE (24) and generic EXISTENCE (25), both expressed by *jiri*.

(23) Somali

*miis-ka buug baa dul yaalla*

table-DEF book FOC upon be.3SG.M.PRES(RESTR)<sup>8</sup>

'There is a book on the table.'

(24) Somali

*libaax-yo badan baa jira' afrika*

lion-PL many FOC exist.PRS.HAB Africa

'There are many lions in Africa.'

(25) Somali

*dad badan oo madhuumiin-a' baa jira'*

people many REL unhappy.PL-be FOC exist.PRS.HAB

'There are many unhappy people.'

This kind of differentiation in Somali (and at least some other languages: see 7.2, Table 9 and 8.1, Table 10) as well as the above observations on English suggest, as a starting point for our inquiry, a conceptual grid that distinguishes (BOUNDED and generic) EXISTENCE on the one hand from R-LOCATION on the other. But a critical discussion will follow in Section 8.2.2: Does this distinction characterize the innermost conceptual structure of English in the same way as in Somali, or do the observations suggested by Examples (14)–(22) concern only superficial effects due, for instance, to the referential features of the NPs involved?

As already noted, R-locationals ((15), (18), (23)) correspond only to one type of LOCATION relations. In English, for instance, they are sharply distinguished from what we will provisionally call T-locationals ((8) repeated below

as (26)). Type T displays the simple verbal item *be* in contrast to the complex expression *there is/there are* in type R:

(26) *The book is on the table*

As a criterion for differentiating types R and T, several authors have proposed definiteness. Indeed, in (15) the LOCATED participant is indefinite, whereas in (26) it is definite. Indeed, type T (26) can be straightforwardly defined by the definiteness of the subject NP. This is the locational subtype of the intransitive clauses with a definite subject, which have been studied especially by Stassen (1997: 10–11). But the reverse does not hold. In fact, for type R indefiniteness is not obligatory, since sentences like (18) with a definite LOCATED participant are possible here as well (Suñer 1982: 95–100; Hannay 1985; Dik 1989: 179; Hengeveld 1992: 119).

The relative word order of the two participants has also been discussed in this context, all the more as it may be an indirect indicator of (in-)definiteness in languages without articles (Clark 1978: 91–96). Indeed, there is a clear tendency towards the relative order LOCUS–LOCATED (independent of the position of the verb) for what we provisionally called type R<sup>9</sup> and towards the order LOCATED–LOCUS for type T. But this is only a tendency (holding for 18 out of Clark's sample of 31 languages). Other word-order or constructional devices (6 languages) and even word-order invariance (7 languages) are possible. In this domain word order is not an *explanans*, but an *explanandum*.

All in all, the difference between the two predication types R and T cannot be derived either from definiteness or from word order. It rather corresponds, once again, to a divergence at the level of information structure, like the one we identified for POSSESSION (2.1). According to Hengeveld (1992: 119) type-R constructions are to be considered as “presentative” (see also Givón 1990[1984]: I, 190, II, 741–748), because they (re-)introduce a referent into the discourse — in the present case, the referent of the LOCATED participant. Consequently, Hengeveld distinguishes a “presentative locative”, corresponding to our type R ((15), (18)), from a “non-presentative locative”, corresponding to our type T (26). In the terminology that I will use in the following (see 2.1 and Note 5), the LOCUS is *thematic* and the LOCATED *rhematic* in type R, whereas the type-T configuration is the exact opposite. This means that, when monitoring the information flow, the speaker and the hearer move from the LOCUS to the LOCATED in type R (RHEMATIC LOCATION) and from the LOCATED to the LOCUS in type T (THEMATIC LOCATION).

We now understand that the distribution of (in-)definiteness is in interaction with, but secondary to information structure. Of course there exists an affinity between rhematicity and indefiniteness, because it is rather natural that the information flow within the sentence moves towards a new referent that is introduced into the discourse in the role of the LOCATED. Indeed, in the RHEMATIC-

LOCATION sentence (15) the rhematic LOCATED is indefinite, as we have noted. But this is only an affinity, no more and no less, since the information flow can also move towards a known referent that is being *reintroduced* into the discourse as a LOCATED (18). On the other side, i.e., for THEMATIC-LOCATION, there is an even stronger affinity between thematicity and definiteness, because it is rather improbable — though perhaps not completely excluded — that the information flow within the sentence moves from a new referent that is being introduced into the discourse as a LOCATED. In fact, in sentence (26) the thematic LOCATED is definite.

We are used to assigning degrees of thematicity or rhematicity to elements of a given sentence, independently of the lexical entities involved. Thus the Somali sentences (23) and (27) are identical from the lexical point of view, the difference residing in word order (thematic before rhematic participant, the verb always being final), in focus assignment to the rhematic participant (FOC) and in the natural distribution of definiteness with respect to information structure (rhematic, indefinite *buug* with zero article (23) vs. thematic *buuggu* with a definite article (27)).

- (27) Somali  
*buug-gu miis-kuu dul yaallaa*  
 book-DEF.NOM table-DEF.FOC.3SG upon be.3SG.M.PRES  
 'The book is a on the table.'

Yet informational values attributed to participant slots may also be considered to be an integral part of constructions and even of particular verbal lexical items (Oesterreicher 1991). In contrast to Somali, English uses at least two different constructions (if not two different lexical items: 6.3): simple *be* for THEMATIC LOCATION (26) and *there+be* for RHEMATIC LOCATION (15). Some languages, like Brazilian Portuguese, are even more radical than English in that they have completely different lexical items (and constructions) in these two cases: *estar* for THEMATIC LOCATION (12) and *ter* for RHEMATIC LOCATION (28).

- (28) Brazilian Portuguese  
*tem um livr-o sobre a mes-a*  
 have.PRS.3SG INDEF.M book-M upon DEF.F table-F  
 'There is a book on the table.'

Accordingly the THEMATIC/RHEMATIC LOCATION split is not necessarily a matter of sentences only, but corresponds to a possible category borderline with lexical (and constructional) relevance. In Section 6 we will see that the presence or absence of a lexical and/or constructional split of this kind is an interesting typological parameter. As we have seen, for English and Brazilian Portuguese

this parameter is positive (English: (26) vs. (15); Portuguese: (12) vs. (28)). For Somali on the contrary, as for many other languages, it is negative. The same verb (*aalli*), with the same valency, applies to THEMATIC (27) as well as to RHEMATIC LOCATION (23).

Another typological parameter will be the relation between RHEMATIC LOCATION and EXISTENCE discussed above. Some languages, like English ((15), (16), (17)) and Brazilian Portuguese ((28), (29)), are characterized by joint lexicalization here.

(29) Brazilian Portuguese

<i>tem</i>	<i>muit-o-s</i>	<i>leõ-es na</i>	<i>Afric-a</i>
have.PRS.3SG	many-M.PL	lion-PL in.DEF.F	Africa-F

'There are many lions in Africa.'

In contrast to this, Somali, as we have seen, displays a fundamental lexical difference (16: *jiri* vs. 17: *aalli*). This observation suggests that RHEMATIC LOCATION be not identified, a priori, with EXISTENCE (but see further discussion in Section 8.2.2).

So an adequate onomasiological grid for typological comparison has to make a threefold<sup>10</sup> distinction instead of the simple opposition LOCATION vs. EXISTENCE in the right-hand part of Figure 1. While accepting that joint lexicalization according to different patterns is possible, we derive the following three categories at the highest level [in square brackets Hengeveld's terms; (1992: 120, 125–126)]: RHEMATIC LOCATION ["presentative locative"], corresponding to (15), (23), (18) and (28) vs. THEMATIC LOCATION ["non-presentative locative"] ((26), (12), and (27)) vs. EXISTENCE ["existential"]. Within the latter category we will distinguish BOUNDED EXISTENCE ((14), (16), (24), and (29)) and generic EXISTENCE ((17) and (25)).

### 2.3. The semantic space LOCATION–EXISTENCE–POSSESSION

As shown in Sections 2.1 and 2.2, the semantic space to be examined embraces a) the three fundamental relations LOCATION, EXISTENCE, and POSSESSION, and b) the informational THEMATIC/RHEMATIC split. This division applies to all cases of LOCATION and POSSESSION, whereas, as far as we are concerned here, the EXISTING ENTITY of existential sentences will always be rhematic.<sup>11</sup> The symmetry of Figure 1 is therefore only apparent. We need, in principle, an onomasiological grid of at least five categories (Koch 1993: 177–179, 1999a: 279–283, 2006: 1–6), which can be represented as follows (the numbers refer to our examples for each category):

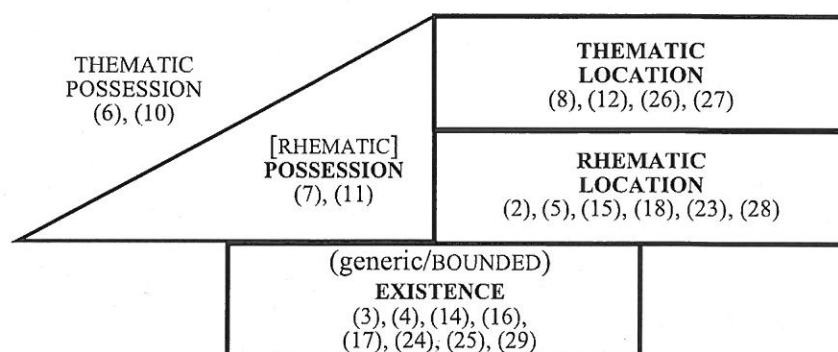


Figure 2. *Semantic space* LOCATION-EXISTENCE-POSSESSION

As we noted in Section 2.2, it is useful to distinguish within the category of EXISTENCE the subcategories ‘generic’ EXISTENCE and BOUNDED EXISTENCE, which we here indicate with “generic/BOUNDED” in brackets. In the figures of the following sections it will be sufficient to represent only the overall category EXISTENCE, because the expressions of generic EXISTENCE and BOUNDED EXISTENCE will be always compatible with each other (generic EXISTENCE simply lacking a LOCA). It will nevertheless be illuminating to consider expressions of BOUNDED EXISTENCE as well, because, as we know, in many languages they are very similar to those of RHEMATIC LOCATION.

Although the relation between THEMATIC and RHEMATIC POSSESSION is a very intriguing point, we will dismiss this issue in the following and concentrate on the particularly important categories of Figure 2 which appear in bold type. What will be noted as POSSESSION in the figures of the following sections thus corresponds only to RHEMATIC POSSESSION.

But in the present inquiry even (RHEMATIC) POSSESSION does not have the same status as the other categories in bold. Our onomasiological focus will be on THEMATIC and RHEMATIC LOCATION as well as on EXISTENCE as target categories. We are interested in (RHEMATIC) POSSESSION only as a source of expressions for these target categories.

### 3. Technical details of the investigation

The relevant categories of the semantic space LOCATION-EXISTENCE-POSSESSION in Figure 2 will be explored here from an onomasiological perspective. We are particularly interested in crosslinguistic patterns of joint linguistic expression of categories or of clear distinction of categories, such as the THEMATIC/RHEMATIC

split. Our empirical base will be a set of test sentences (3.1) and a language sample (3.2).

### 3.1. *The test sentences*

As a common reference point I will use a set of test sentences corresponding to the concepts in bold in Figure 2. These sentences have the following form in English:

⟨S <sub>1</sub> ⟩	The boy has a book. (e.g., (7), (11))	[RHEMATIC] POSSESSION
⟨S <sub>2</sub> ⟩	The book is on the table. (e.g., (8), (12), (26), (27))	THEMATIC LOCATION
⟨S <sub>3</sub> ⟩	There is a book on the table. (e.g., (2), (5), (15), (18), (23), (28))	RHEMATIC LOCATION
⟨S <sub>4</sub> ⟩	There are many lions in Africa. (e.g., (14), (16), (24), (29))	BOUNDED EXISTENCE
⟨S <sub>5</sub> ⟩	There are many unhappy people. (e.g., (3), (4), (17), (25))	generic EXISTENCE

The equivalents in different languages cited in this paper are indicated in the form ⟨S<sub>1</sub>⟩, ⟨S<sub>2</sub>⟩, etc. or, in case there is a slight divergence, in the form ⟨~S<sub>1</sub>⟩, ⟨~S<sub>2</sub>⟩, etc.<sup>12</sup>

In the English versions of ⟨S<sub>2</sub>⟩ and ⟨S<sub>3</sub>⟩ I have chosen a definite NP for the thematic LOCATED (⟨S<sub>2</sub>⟩ *the book*) in contrast to an indefinite NP for the rhematic LOCATED (⟨S<sub>3</sub>⟩ *the book*), because this makes the sentences more natural for reasons discussed in Section 2.2.

### 3.2. *The sample*

The language sample used in the following is not typological in the technical sense (Nichols 1992; Rijkhoff and Bakker 1998; Bakker 2011). It is a sample of convenience that depends on the data so far available in an on-going study (see Appendix B). Some of them are taken from a number of mainly European languages already described in former publications (cf. Koch 1993, 1999a, 2006); and some of them are taken from a number of mainly African languages of different phyla.<sup>13</sup> So the sample is biased towards Europe and Africa, and the results presented in the following do not have any statistical validity. Nevertheless some interesting crosslinguistic tendencies can be detected. Above all, it will appear that genetic affiliation and areal proximity between languages may, but do not necessarily imply a similarity of solutions.

#### 4. Lexical or grammatical typology?

##### 4.1. Three problems

One might be inclined to say that the expressions corresponding to concepts within the semantic space LOCATION–EXISTENCE–POSSESSION are verbal lexical items, because they have verbal morphology in many languages. But there are three problems with this view:

Problem A: Verbal lexical items do not always correspond to simple morphemes. We also have to cope with internally complex lexical items, such as idiomatic expressions.

Problem B: Although the choice of the verbal lexical item is central for the expression of these concepts, the valency of any particular verb involved is important as well.

Problem C: The “expression” of these concepts can vary between full lexical verbal items, explicit copulæ, and so-called “zero copulæ”.

As we will see in 4.2, an answer to these problems will be a Construction Grammar approach.

Concerning problem A, at first glance the French test sentence for RHEMATIC LOCATION (see (2) repeated below as (30)) contains, alongside the verb *avoir* ‘have’, the pronominal adverb *y* ‘there’.

- (30) French
- |           |           |              |            |              |            |                   |
|-----------|-----------|--------------|------------|--------------|------------|-------------------|
| <i>il</i> | <i>y</i>  | <i>a</i>     | <i>un</i>  | <i>livre</i> | <i>sur</i> | RHEMATIC LOCATION |
| 3SG       | there     | have.PRS.3SG | INDEF.M.SG | book         | upon       |                   |
|           | <i>la</i> | <i>table</i> |            |              |            |                   |
|           | DEF.F.SG  | table        |            |              |            |                   |
- ⟨S<sub>3</sub>⟩ ‘There is a book on the table.’

In fact, we have a many-to-one correspondence here between formal elements and unities of meaning. It is the idiomatic expression *il y a* as a whole that expresses RHEMATIC LOCATION. The element *y* does not have any independent semantic value. As we will see in 4.2, one of the tenets of Construction Grammar is just its capacity to account for idioms.

As to the above problem B, in Brazilian Portuguese the possessive test sentence (31), repeated from (11) above, contains the same verbal lexical item *ter* ‘have’, in bold type, as the generic-existential test sentence (32). So there is, first of all, identity on the lexical level.

- (31) Brazilian Portuguese
- |          |              |                   |           |               |            |
|----------|--------------|-------------------|-----------|---------------|------------|
| <i>o</i> | <i>rapaz</i> | <b><i>tem</i></b> | <i>um</i> | <i>livr-o</i> | POSSESSION |
| DEF.M    | boy          | have.PRS.3SG      | INDEF.M   | book-M        |            |
- ⟨S<sub>1</sub>⟩ ‘The boy has a book.’

- (32) Brazilian Portuguese  
*tem*              *muit-a*    *gente*    *infeliz*                                      generic EXISTENCE  
 have.PRS.3SG    much-F    people unhappy  
 ⟨S<sub>5</sub>⟩ ‘There are many unhappy people.’

However, verbs are not only defined by their lexical expression, but also by their valency. Now, on the level of verbal valency the relation between the two sentence types is more intricate. In (31) the valency is S (*o rapaz*) + DO (*um livro*), in (32) only DO (*muita gente infeliz*). In the latter case *ter* is impersonal, taking by default the form of the 3SG, whereas it is personal in the former case, agreeing in number with the S (in the plural we would have *os rapazes têm*). So the two sentence types display lexical identity with only partly identical valency patterns, since they have only the DO in common. Nevertheless they are clearly related. As we will see in 4.2, Construction Grammar is able to account for problems like these.

As to the above problem C, the seemingly self-evident notion of “verbal lexical item” has to be examined in more detail. Let us start from two other examples with Brazilian Portuguese *ter*, which are uncontroversial ((28) and (29)). Leaving aside questions of valency, as they are discussed under problem B, we see that there is lexical identity between the rhematic-locational (28) and the bounded-existential (29) test sentences ⟨S<sub>3</sub>⟩ and ⟨S<sub>4</sub>⟩. Estonian seems to display an analogous identity of the verbal items in the rhematic-locational and the bounded-existential test sentence:

- (33) Estonian  
*laua-l*            *on*                      *raamat*                                      RHEMATIC LOCATION  
 table-ADESS    be.PRS.3SG    book  
 ⟨S<sub>3</sub>⟩ ‘There is a book on the table.’
- (34) Estonian  
*Afrika-s*        *on*                      *palju*    *lõvi-sid*                                      BOUNDED EXISTENCE  
 Africa-INESS    be.PRS.3SG    many    lion-PART.PL  
 ⟨S<sub>4</sub>⟩ ‘There are many lions in Africa.’

But whereas Brazilian Portuguese *ter* ‘have’ is a full verbal lexical item, Estonian *olema* ‘be’ constitutes a *copula*. The function of copulae is normally attributed to the domain of nonverbal predication, where the *real predicate* is an adjective, a noun, or a locative adverbial (see Hengeveld 1992: 26–30; Stassen 1997: 11–21; 2005b; 2006). According to this kind of analysis, the “real predicate” of a locational nonverbal predication is equally the LOCA, expressing the LOCUS: (28) *laual* ‘on the table’. In a sense, the bold-faced copula elements in these two sentences represent a kind of verbal lexical item, because they have the morphosyntactic characteristics of a verb (tense, person, number, etc.); but they constitute only a support verb, the borderline case of a *lexical*



item, whose (only) function is to express just the verbal morphosyntactic categories unexpressed in the real (adverbial) predicate.

Nonverbal predication does not necessarily need a copula as verbal support element. The Samba Daka (quasi) equivalents of the test sentences  $\langle S_3 \rangle$  and  $\langle S_4 \rangle$ , for instance, do not contain any verbal item at all, this language having *zero copula*.

- (35) Samba Daka  
*sáāt-jūkéēn é dāt tébq̄l* RHEMATIC LOCATION  
 word-to watch MOOD upon table  
 $\langle S_3 \rangle$  'There is a book on the table.'
- (36) Samba Daka  
*nyik b̄ū (é) nàà Áfirikà* BOUNDED EXISTENCE  
 lion PL (MOOD) in Africa  
 $\langle \sim S_4 \rangle$  'There are lions in Africa.'

But unfortunately things are still more complicated. Russian is one of those languages where zero copula is possible, but dependent on the "present parameter" (Stassen 1997: 62–65, 2005c; Dixon 2002: 9–10; especially for Russian: Clancy 2000: 85–86, 96–99, 101–104, 149–154). Thus the exact Russian equivalents (37) and (39) of the two test sentences we examined so far in Brazilian Portuguese, Estonian and Samba Daka remind us of the verbless patterns that we find in the latter language ((35) and (36)), because everything is in the present tense. As soon as we go into the past tense, a copula appears in Russian, as exemplified by (38) *byla* and (40) *bylo*. This would not be the case in Samba Daka, which would use (35) for the past as well.

- (37) Russian  
*na stol-e knig-a* RHEMATIC LOCATION  
 on table-PREP.SG book-F.NOM.SG  
 $\langle S_3 \rangle$  'There is a book on the table.'
- (38) Russian  
*na stol-e by-l-a knig-a* RHEMATIC LOCATION  
 on table-PREP.SG be-PST-F.SG book-F.NOM.SG  
 'There was a book on the table.'
- (39) Russian  
*v Afrik-e mnogo l'vov* BOUNDED EXISTENCE  
 in table-PREP.SG many.N.NOM.SG lion-GEN.PL  
 $\langle S_4 \rangle$  'There are many lions in Africa.'
- (40) Russian  
*v Afrik-e by-l-o mnogo* BOUNDED EXISTENCE  
 in table-PREP.SG be-PST-N.SG many.N.NOM.SG  
*l'vov*  
 lion-GEN.PL  
 'There were many lions in Africa.'

It is interesting to note that, on the theoretical level, the discrepancy between apparently verbal sentences, like (28), (29), (33), (34), (38), and (40) and *nominal sentences*, like (35), (36), (37), and (39), is normally reduced, in one way or in another, to a unitary model of description. On the one hand, both types of sentences may equally be considered to be occurrences of nonverbal predication, where the copula has a purely formal function ((33), (34), (38), (40)) and may be omitted in certain languages under certain conditions ((35), (36), (37), (39)); see Hengeveld 1992: 25–46). It goes without saying that this predominantly syntactic analysis does not fit directly into lexical typology. On the other hand, both types of sentences may be considered to be occurrences of verbal predication, the nominal type diverging from this central pattern in the omission of the copula in certain languages under certain conditions (Feuillet 1998: 664–665). This predominantly “lexical” interpretation, in turn, does not fit directly into syntactic typology.

So the typologist investigating the conceptual domains LOCATION and EXISTENCE has to bear problems like these in mind. On the one hand we have to acknowledge the cline: full verbal lexical item (Brazilian Portuguese) — copula (Estonian) — zero copula with present parameter (Russian) — complete zero copula (Samba Daka). On the other hand, cutting across these differences, we notice a profound parallelism across these four languages involving — for each language — a strong similarity of expression between RHEMATIC LOCATION and BOUNDED EXISTENCE. It is this parallelism that will be even our main concern and that we would like to capture. The first aspect corresponds to the syntactic contrast between columns a, b, c/d, and e in Table 1, the second to the correlation between rows 1 and 2.

Table 1. Full verb, copula, and zero in RHEMATIC LOCATION and BOUNDED EXISTENCE

	a	b	c	d	e	
	full verbal lexical item	copula	copula/present parameter		complete zero copula	
			copula	zero		
RHEMATIC LOCATION	(28) Brazilian Portuguese: <i>ter</i>	(33) Estonian: <i>olema</i>	(38) Russian: <i>byl'</i>	(37) Russian: zero	(35) Samba Daka: zero	1
BOUNDED EXISTENCE	(29) Brazilian Portuguese: <i>ter</i>	(34) Estonian: <i>olema</i>	(40) Russian: <i>byl'</i>	(39) Russian: zero	(36) Samba Daka: zero	2

While it would clearly be of typological interest to capture the syntactic differences between languages, the clear correlations between RHEMATIC LOCATION and BOUNDED EXISTENCE across languages (rows 1 and 2) are apparent as well. It is of course unfortunate that some of the cells have no lexical exponents (d1, d2, e1, e2). In fact we neither wish to deny the syntactic differences between the languages nor would willingly abandon the chance to fully capture the striking parallels in their expression of the two concepts RHEMATIC LOCATION and BOUNDED EXISTENCE. How can we bridge the gap between the (more or less) lexical and the merely syntactic point of view? Once more it is Construction Grammar that will be helpful here.

#### 4.2. Construction Grammar: idioms, valency and zero copula

Construction Grammar is a functional approach that posits only one level of syntactic representation and assigns meaning not only to words, but also to the constructions in which they occur (Fillmore 1988; Goldberg 1995, 2003, 2006; Croft and Cruse 2004: 223–290; Fried and Östman 2004; Evans and Green 2006: 641–706). Thus even subtle semantic effects of syntactic structures are taken seriously. In this sense, the notion of ‘construction’ comprises every kind of conventionalized form and meaning pairings, be they “atomic” or complex: morphemes, words, idioms, partially lexically filled patterns and abstract syntactic patterns. Construction Grammar rejects the idea of separating, within the speaker-hearers’ linguistic knowledge, a regular (grammatical) core and an “irregular” (mainly lexical) periphery and consequently propagates the idea of a syntax-lexicon continuum.

One of the assets of this approach is the distinction between *substantive* and *schematic* (formal) items (Fillmore, Kay and O’Connor 1988; Croft and Cruse 2004: 233–234, 255–256; Evans and Green 2006: 644–645). A substantive construction is a syntactic configuration that is *lexically filled*, i.e., that is composed of only particular lexical — or even grammatical — elements, e.g., (41), containing *there*, *it*, and *is*. This corresponds to an idiom in the traditional sense. Note that in the conventional terminology of Construction Grammar the term “substantive” does not have anything to do with the word class ‘substantive’, i.e., noun (it applies to any word class), but simply has the sense of ‘constituted by one or more particular lexical or grammatical items’. In contrast to substantive constructions, a schematic construction is a syntactic configuration that is entirely composed of slots, which can be filled each by a whole class of — appropriate — particular elements. As an example we may take here one of Goldberg’s argument structure constructions, containing the functional slots S, V, IO, and DO (42) (see Goldberg 1995: 24–66, 1999).<sup>14</sup> This corresponds to a syntactic structure in the ordinary sense. Note that both (41) and (42) are equally assigned a meaning, which is part of the construction.

- (41) Meaning: RESIGNATION TO AN UNPLEASANT FACT  
 Form: English *There it is!*
- (42) Meaning: X CAUSES Y TO RECEIVE Z (ditransitive construction)  
 Form: English S V IO DO  
 Example: *Joe gave Sally the ball.*

There is a continuum from completely 'substantive' (41) to completely 'schematic' syntactic configurations (42). Between these extremes we can discern constructions containing partly substantive and partly schematic items. Thus the Brazilian Portuguese rhematic locational construction (28) can be considered to be a construction made up of a substantive verbal lexical item (*ter*), the grammatical expression of the (impersonal) 3SG and two schematic noun phrases (DO and LOCA encoding the LOCATED = L<sup>ED</sup> and the LOCUS = L<sup>US</sup> respectively):

- (43) Meaning: L<sup>US</sup> LOCATES L<sup>ED</sup> (rhematic locational construction)  
 Form: Braz. Portuguese LOCA *ter*<sub>3SG</sub> DO  
 Example: (28)

A constructional approach makes it considerably easier to resolve the problems A, B, and C raised in 4.1.

First of all, problem A (Example (30)): Thanks to the capacity of Construction Grammar to integrate idioms as complex substantive items (especially Fillmore, Kay and O'Connor 1988), it is easy to apply the typological comparison of argument structures even to constructions involving an idiomatic verbal element. Thus the French RHEMATIC LOCATION construction can be considered a construction made up of a complex substantive verbal item (*y+avoir*), the grammatical expression of the (impersonal) 3SG, a dummy S<sup>o</sup> *il*, and two schematic noun phrases (DO and LOCA, encoding the LOCATED = L<sup>ED</sup> and the LOCUS = L<sup>US</sup> respectively):

- (44) Meaning: L<sup>US</sup> LOCATES L<sup>ED</sup> (rhematic locational construction)  
 Form: French S<sup>o</sup> LOCA *y+avoir*<sub>3SG</sub> DO  
 Example: (30)

We see that the construction in (44) is very similar to the one in (43), at least in its schematic items, DO and LOCA. As for the substantive item, there is just the formal difference between a simple verb, Brazilian Portuguese *ter*, and a formally complex one, French *y+avoir*. (The presence of S<sup>o</sup> is only an internal requirement of Standard French syntax.)

As to problem B (Examples (31)–(32)), constructions that are made up of one substantive (central) verbal item and of a number of (dependent) schematic noun phrases are a new way of bringing together what has traditionally been described in terms of semantic valency (*meaning*) and syntactic valency (*form*)

for a given verb, i.e., a substantive item exercising the power of valency (Tesnière 1969; Helbig 1992; Lazard 1998; Welke 2003; Wolf 2003).

Note that there is a great variety of types of constructions in language. Valency depending on a substantive verbal item is only *one* type. A given 'construct', say a particular negative sentence whose verb has three arguments, normally involves the combination of a considerable number of different constructions, such as word order, the negation construction, NP constructions for every single NP, a construction for every single word, etc., and of course also the three-argument valency construction (see Goldberg 2003: 221–222). When we speak of *constructions* in the following, we are interested exclusively in valency constructions with respect to a given substantive verbal item that correspond to the (locational, existential, or possessive) sentence types that we are investigating. Other types of constructions, e.g., word order patterns, will be taken into account only incidentally, insofar as they interact with valency constructions.

We are now in a better position to capture, in terms of constructions, the problem that has been raised in 4.1, as problem B:

- INTRAlingual relations: the formal and semantic relations between semantically defined sentence types within a given language (*INTRA* in Figure 3).
- INTERlingual relations: typological parallelism and difference between semantically equivalent sentence types in different languages (*INTER* in Figure 3).

As for the relation between sentence types within a given language (*INTRA* in Figure 3 below), we see for example that in Brazilian Portuguese (say  $L_1$  in Figure 3) the generic existential construction  $C_{1,1}$  = (45), exemplified in (31), is formally related to, though not completely identical with the possessive construction  $C_{1,2}$  (46), exemplified in (32). Both constructions share a substantive verbal lexical item (*ter*) and a schematic DO noun phrase.

- |      |          |                  |                              |                                    |
|------|----------|------------------|------------------------------|------------------------------------|
| (45) | Meaning: |                  | $P^{OR}$ POSSESSES $P^{EE}$  | (possessive construction)          |
|      | Form:    | Braz. Portuguese | S <i>ter</i> DO              | Example: (31)                      |
| (46) | Meaning: |                  | EXISTS EE                    | (generic existential construction) |
|      | Form:    | Braz. Portuguese | <i>ter</i> <sub>3SG</sub> DO | Example: (32)                      |

With respect to valency, the DO encodes the POSSESSEE =  $P^{EE}$  in the possessive construction and the EXISTING ENTITY = EE in the existential construction. Additionally the S encodes the POSSESSOR =  $P^{OR}$  in the possessive construction. Putting together the two formally related patterns (45) and (46) in constructional terms is of interest only if we can detect a semantic link between the two constructions. It will become clear in Section 7.1 that this is a contiguity link in our example. In such a case we can speak of *joint constructionalization*

( $C_{1.1} \sim C_{1.2}$  in Figure 3), going far beyond *joint lexicalization*. Below (4.3) we will use the notion of *inheritance* to describe links of this kind.

On the other hand, from our perspective there is no need to search for formal valency relatedness, if the verbal item is not identical. Thus in Somali (say  $L_1$  in Figure 3) the verbal items of the rhematic locational construction (23) and of the bounded existential construction (24) are completely disjunct, as already shown in 2.1. This is what we can call a *constructional split* ( $C_{1.1} \neq C_{1.2}$ )

As for semantically equivalent sentence types in different languages, a constructional analysis is able to reveal parallelism and difference ('INTER' in Figure 3 below). An example of fundamental parallelism ( $\sim$ ) is the similarity between the rhematic locational construction, say  $C_{1.1}$ , in  $L_1$  = Brazilian Portuguese (43) and its equivalent, say  $C_{2.1}$ , in  $L_2$  = French (44) (see the discussion above). An example of difference ( $\neq$ ) would be the rhematic locational constructions in English (15) and in French (30), which has been specified for French in (44) above and can be described for English as follows:

- (47) Meaning:  $L^{US}$  LOCATES  $L^{ED}$  (rhematic locational construction)  
 Form: English LOCA *there+be* S Example: (15)

The LOCUS appears in both languages as a LOCA, whereas the LOCATED is encoded as a S in English, as a DO in French. From the grammatical point of view the verbal item is personal in English, but impersonal in French (with a dummy subject). This example shows furthermore that from the INTER perspective a "comparison" of the verbal items as such, i.e., as substantive components of the construction, makes no sense, because they are necessarily different in two different languages. So the difference between the English and the French construction is exclusively due to facts of valence.

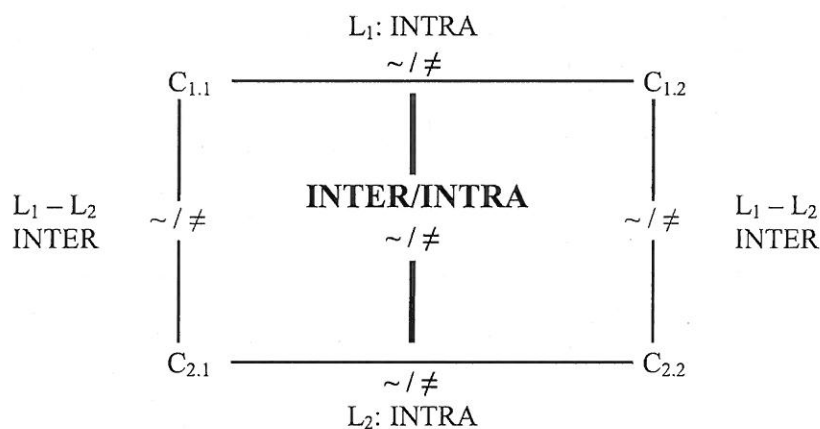


Figure 3. INTRA- and INTERlingual relations between constructions

As represented in Figure 3, the main strand of the present inquiry is the interaction of relations between semantically related constructions within particular languages on the one hand and of parallelism or difference between semantically equivalent constructions in different languages on the other hand: *INTER/INTRA* in Figure 3. From the typological point of view we are interested in cases of

- (i) parallelism (INTRA/INTER ~) with respect to the relatedness of constructions (INTRA ~) in different languages  $L_1, L_2 \dots L_n$ . This corresponds to a crosslinguistic pattern of *joint constructionalization*. Note that the constructions related ( $C_{1,1} - C_{1,2}$ , etc.) may or may not be similar in the languages compared (INTER ~ or  $\neq$ ). What counts in the first place is the parallelism of relatedness (bold line in Figure 3). Thus the Brazilian Portuguese possessive construction (45) is related to the generic existential construction (46) in the same way as the — very similar — Wolof possessive construction (48)/(50) to the generic existential construction (49)/(51).
- (48) Wolof  
*xale bu góor bi am na ab tééré* POSSESSION  
 child REL be\_male DEF have PFV INDEF book  
 <S<sub>1</sub>> 'The boy has a book.'
- (49) Wolof  
*am na nit ñu bari ñu* generic EXISTENCE  
 have PFV people REL be\_numerous REL  
*beg-ul*  
 be\_happy-NEG  
 <S<sub>5</sub>> 'There are many unhappy people.'
- (50) Meaning: P<sup>OR</sup> POSSESSES P<sup>EE</sup> (possessive construction)  
 Form: Wolof S *am* DO Example: (48)
- (51) Meaning: EXISTS EE (generic existential construction)  
 Form: Wolof *am* DO Example: (49)

This is a crosslinguistic pattern of joint constructionalization with constructional similarity in detail: In  $L_1$ , i.e., Brazilian Portuguese, the two constructions under consideration are clearly related (INTRA (45)~(46)). The same holds for the two corresponding constructions in  $L_2$ , i.e., Wolof (INTRA (50)~(51)). So we have an interlingual parallelism with respect to the relatedness of constructions (INTRA/INTER (45)/(46)~(50)/(51)). Moreover, the corresponding constructions are of the same valency type in the two languages compared (INTER (45)~(50) and INTER (46)~(51)).

A slightly different situation appears in the following example. The English rhematic locational construction (47) is related to the bounded

existential construction (52) in a very similar way as the French rhematic locational construction (44) is related to the bounded existential construction (53). In detail, however, the constructions involved are rather dissimilar in the two languages. The verbal item is based on a *be*-verb in English, but on a *have*-Verb in French, and furthermore the valency is partly different:  $L^{ED}/EE = S$  in English,  $L^{ED}/EE = DO$  in French. This is a crosslinguistic pattern of joint constructionalization without constructional similarity in detail (INTRA/INTER ~, INTRA ~ and INTER ≠).

- (52) Meaning: IN  $L^{US}$  EXISTS EE (bounded existential construction)  
 Form: English LOCA *there+be* S Example: (14)
- (53) Meaning: IN  $L^{US}$  EXISTS EE (bounded existential construction)  
 Form: French  $S^{\circ}$  LOCA *y+avoir* (3SG) DO construction)  
 Example: (54) below
- (54) French  
*il y a beaucoup de lion-s en Afrique.*  
 3SG there have.PRS.3SG much of lion-PL in Africa  
 ⟨ $S_4$ ⟩ 'There are many lions in Africa.'

From the typological point of view we are also interested in cases of

- (ii) parallelism (INTRA/INTER ~) with respect to the nonrelatedness of constructions (INTRA ≠) in different languages  $L_1, L_2 \dots L_n$ . This corresponds to a crosslinguistic pattern of 'constructional split'. Thus the Brazilian Portuguese rhematic locational construction (55) is disjunct from the Portuguese rhematic locational construction (43) in the same way as the English rhematic locational construction (56) is disjunct from the English rhematic locational construction (47), independently of the similarity or dissimilarity between the constructions involved in each of these two languages. This is a crosslinguistic pattern of constructional split.
- (55) Meaning:  $L^{ED}$  IS LOCATED BY  $L^{US}$  (them. loc. construction)  
 Form: Braz. Portuguese *S estar* LOCA Example: (12)
- (56) Meaning:  $L^{ED}$  IS LOCATED BY  $L^{US}$  (thematic locational construction)  
 Form: English *S be* LOCA Example: (26)
- (iii) difference (INTRA/INTER ≠) with respect to the relatedness of constructions, e.g., INTRA ~ between  $L_1, L_2 \dots L_m$  vs. INTRA ≠ in  $L_3, L_4 \dots L_n$ . Thus the rhematic locational and the bounded existential construction are related in English and in French ((47) : (52) = (44) : (53)), whereas they are disjunct in Somali, with *aalli* for



RHEMATIC LOCATION (57) and *jiri for* BOUNDED EXISTENCE (58). This corresponds to a typological difference in constructionalization patterns.

- |      |          |                            |                                    |
|------|----------|----------------------------|------------------------------------|
| (57) | Meaning: | $L^{US}$ LOCATES $L^{ED}$  | (rhematic locational construction) |
|      | Form:    | Somali LOCA <i>aalli</i> S | Example: (23)                      |
| (58) | Meaning: | IN $L^{US}$ EXISTS EE      | (bounded existential construction) |
|      | Form:    | Somali LOCA <i>jiri</i> S  | Example: (24)                      |

Let us finally move on to problem C raised in Section 4.1. (Examples (33)–(40)): A constructional approach enables us to cope even with problems of the nature and/or presence of a verbal item in the relevant constructions. Independently of the typological differences between full verbal lexical items, copulae and zero copula phenomena we can describe any sentence type in constructional terms and thus create a comparative basis for the patterns we are really interested in.

Thus the Brazilian Portuguese rhematic locational construction (28) is defined by a substantive full verbal lexical item (*ter*) in the 3SG and two schematic items, namely a LOCA phrase, expressing the LOCUS, and a DO-NP, expressing the LOCATED (43). In a short form we can note this as: *ter*  $L^{US}$ •LOCA  $L^{ED}$ •DO. As exemplified by (29), a very similar formula holds for the bounded existential construction: *ter* { $L^{US}$ •LOCA} EE•DO (the brackets { . . . } indicate that the LOCUS is not a real participant in existential constructions: see 2.2).

In Estonian the corresponding constructions ((33), (34)) are defined by a copula (*olema*) and two schematic items, namely a LOCA phrase, expressing the LOCUS, and an S-NP, expressing the LOCATED: (59) or the EXISTING ENTITY, the {LOCUS} not being a real participant in the bounded existential construction.

- |      |          |                                |                                    |
|------|----------|--------------------------------|------------------------------------|
| (59) | Meaning: | $L^{US}$ LOCATES $L^{ED}$      | (rhematic locational construction) |
|      | Form:    | Estonian LOCA <i>olema</i> S   | Example: (33)                      |
| (60) | Meaning: | IN { $L^{US}$ } EXISTS EE      | (bounded existential construction) |
|      | Form:    | Estonian {LOCA} <i>olema</i> S | Example: (34)                      |

In Russian the corresponding constructions ((37), (38), (39)) are defined in the first place by the presence of two schematic items, namely a LOCA phrase, expressing the LOCUS, and an S-NP, expressing the LOCATED (61) or the EXISTING ENTITY (62), the {LOCUS} not being a real participant in the bounded existential construction. In both constructions the presence of a substantive verbal item (specifically a form of *byt'*) is only optional, depending on the conditions *c/d* described in Table 1: [*byt'*]<sub>*c/d*</sub>.

- |      |          |  |                                    |
|------|----------|--|------------------------------------|
| (61) | Meaning: | $L^{US}$ LOCATES $L^{ED}$                              | (rhematic locational construction) |
|      | Form:    | Russian LOCA [ <i>byt'</i> ] <sub><i>c/d</i></sub> S   | Examples: (37), (38)               |
| (62) | Meaning: | IN { $L^{US}$ } EXISTS EE                              | (bounded existential construction) |
|      | Form:    | Russian {LOCA} [ <i>byt'</i> ] <sub><i>c/d</i></sub> S | Examples: (39)                     |

In Samba Daka the corresponding constructions ((35), (36)) are defined exclusively by the presence of two schematic items, namely a LOCA phrase, expressing the LOCUS, and an S-NP, expressing the LOCATED (63) or the EXISTING ENTITY (64), the {LOCUS} not being a real participant in the bounded existential construction. In both constructions we have an unconditional zero copula.

- |      |          |                           |                                    |
|------|----------|---------------------------|------------------------------------|
| (63) | Meaning: | $L^{US}$ LOCATES $L^{ED}$ | (rhetic locational construction)   |
|      | Form:    | Samba Daka LOCA S         | Examples: (35)                     |
| (64) | Meaning: | IN $\{L^{US}\}$ EXISTS EE | (bounded existential construction) |
|      | Form:    | Samba Daka $\{LOCA\}$ S   | Examples: (36)                     |

Even though phenomena of zero copula are undeniably an interesting typological issue and although they can be observed in some languages of the sample, namely Gbaya, Maltese, Russian, and Samba Daka, this problem in itself does not constitute the main concern of the present paper. But the constructional approach enables us to capture, in the terms of Figure 3, parallelism (INTRA/INTER ~) with respect to the relatedness of constructions (INTRA ~) in different languages  $L_1, L_2 \dots L_n$ , whose relevant constructions ( $C_{1,1}$ – $C_{1,2}$ , etc.) may vary with respect to the presence or nature of verbal items (INTER  $\neq$ ). Thanks to the constructional analysis we are able to rule out these minor differences and extract the fundamental common features of locational, existential, and/or possessive constructions. As for the Brazilian Portuguese, Estonian, Russian, and Samba Daka constructions discussed above the shared configurations can be summarized as follows:

- |      |          |                           |  |
|------|----------|---------------------------|--|
| (65) | Meaning: | $L^{US}$ LOCATES $L^{ED}$ | (rhetic locational construction)       |
|      | Form:    | LOCA . . . S              | Examples: (33), (35), (37), (38), (43) |
| (66) | Meaning: | IN $\{L^{US}\}$ EXISTS EE | (bounded existential construction)     |
|      | Form:    | $\{LOCA\}$ . . . S        | Example: (29), (34), (36), (39), (40)  |

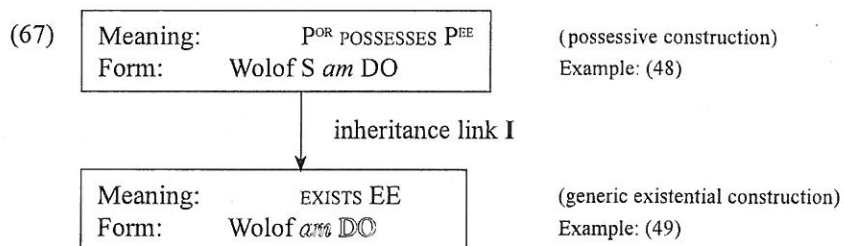
It is this possibility of constructional abstraction that we are interested in here.

#### 4.3. *Inheritance and constructional typology*

The notion of *inheritance* characterizing different constructionist approaches (Lakoff 1987: 482–488; Goldberg 1995: 67–100, 2003; Fillmore 1999; Croft and Cruse 2004: 270–275, 282–283, 287–288; Evans and Green 2006: 680–684) is ideal for capturing patterns of ‘joint constructionalization’ (see 4.2, the discussion concerning problem B). Recall that we are interested here only in valency constructions made up of one substantive verbal item and of a number of schematic noun phrases expressing participants.<sup>15</sup> In this view, there can be an inheritance link between two constructions only if they are both

formally and semantically related (this corresponds to INTRA ~ in 4.2.). *Formal relatedness* implies, first of all, identity of the verbal item and, second, complete or at least partial identity of the participant NPs (for semantic relatedness see below, especially Tables 2 and 3).

Thus the Wolof generic existential construction *am* EE•DO (51) inherits its verbal lexical item *am* 'have' and the DO encoding the EXISTING ENTITY from the possessive construction P<sup>OR</sup>•S *am* P<sup>EE</sup>•DO (51) (inherited information in contour):



As we have already seen in Section 4.2, (45) and (46) and as we will see in more detail in Section 7.1, similar inheritance links exist in other languages of the sample, namely Brazilian Portuguese and Zulu.

Note that an inheritance link between POSSESSION and EXISTENCE does not exist, for instance, either for the English general existential construction *there+be* EE•S (17) or for the Somali equivalent *jiri* EE•S (25).<sup>16</sup> This fact illustrates the language-specific character of inheritance links (Goldberg 2003: 219). Language-specificity, however, does not preclude crosslinguistic generalizations concerning particular inheritance patterns (Goldberg 2006: 183–204). This will lead us to a sort of *constructional typology* cutting across grammar and lexicon (Sections 5–8).

Synchronically speaking, inheritance links between constructions (e.g. the one represented in (67)) are a means to capture motivation within the lexicon and/or the grammar (Lakoff 1987: 537–540; Goldberg 1995: 69–72, 2006: 217–220). *Motivation* is a notion concerning the quality of the relation between form and meaning (semantics). In fact, a given linguistic sign  $S_a$  is motivated if there is a perceptible relation between its form and the form of another sign  $S_b$ , paralleled by a cognitively relevant relation between the concept expressed by  $S_a$  and the concept expressed by  $S_b$  (see e.g., Gauger 1971: 8; Rettig 1981: 21, 33–45, 209; Koch 2001a: 1156; Radden and Panther 2004; Koch and Marzo 2007: 262–265).<sup>17</sup> Since constructions are linguistic signs (and, as noted in Section 4.2, any linguistic sign can ultimately be accounted for in constructional terms), their motivation-by-inheritance is necessarily based on a perceptible form-form relation paralleled by a cognitively relevant concept-concept relation.

Goldberg (1995: 75–81) distinguishes four types of inheritance links: *polysemy*, *subpart*, *instance*, and *metaphorical* links. As shown in Table 2 from the formal point of view this systematics implicitly opposes links between identical constructions (polysemy à la Goldberg, “metaphor”) to links between non-identical constructions: either one construction is formally part of the other (“subpart”), or a schematic item in one construction is specified by a substantive item in the other (‘instance’). From the semantic point of view polysemy links à la Goldberg seem to display a great semantic variety, whereas each one of the other types of links corresponds to one type of semantic relation: subpart to whole-part, instance to specification (= taxonomic subordination), and metaphorical — necessarily — to metaphor.

Table 2. *Formal and semantic properties of inheritance links à la Goldberg (1995)*

	formally identical constructions	
	+	–
semantic variety	• polysemy links	
semantic oneness	• metaphorical links	• subpart links • instance links

However, since polysemy is also a central notion of lexicology, it is worthwhile having a look at lexical semantics in order to systematize the semantic types of polysemy. According to Blank (2003: 268–273) we can distinguish three main types of lexical polysemy: metaphorical, taxonomic, and metonymic (disregarding some rare other types without discernible relevance for *constructional polysemy*). Since (synchronically perceptible) metaphor is only one kind of lexical polysemy, it seems sound — as we will do here — to apply the three-fold systematics of lexical polysemy to constructional polysemy as well and to merge the types “polysemy” and “metaphor” à la Goldberg into one type of “overall polysemy”, comprising three subtypes: a metaphorical (based on metaphorical similarity: ①), a taxonomic (based on conceptual sub-/superordination: ②), and a metonymic one (based on contiguity: ③) (see Koch 2001a: 1158–1159; Blank 2003: 268–269; Koch and Marzo 2007: 268–269). As for the remaining two Goldbergian types of links, they seem to correspond to typical semantic effects: whole-part (ultimately, a kind of contiguity: ①) for subpart links, and (taxonomic) subordination for instance links. We will see, however, (6.3) that at least for subpart links we may take further semantic relations into account (②, ③).

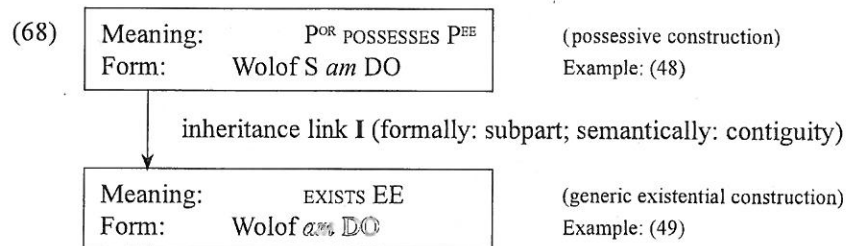
Table 3. *New formal-semantic systematics of inheritance links between constructions*

	formal properties	semantic relations
(overall) polysemy links	identity	① metaphorical similarity ② taxonomic sub-/superordination ③ contiguity
subpart links	nonidentity	① contiguity (type: whole-part) ② taxonomic sub-/superordination ③ co-hyponymy
instance links	nonidentity	taxonomic subordination

In the following polysemy should be understood throughout in the sense of “overall polysemy”.

Note that only polysemy links involve *tropes*, corresponding respectively to ① metaphor, ② species-genus or genus-species synecdoche, or ③ metonymy (based on contiguity), because tropes presuppose formal identity. Subpart and instance links may involve partly similar semantic relations, as shown in Table 3, but they constitute semantic developments of formal expansions or specifications, not tropes applied to an identical form.

Now let us turn to the Wolof generic existential construction (67). A more accurate analysis reveals that from the formal point of view the impersonal pattern *am* DO encoding the concept of generic EXISTENCE constitutes only a subpart of the personal pattern *S am* DO encoding the concept of POSSESSION:



The semantic relation between the two concepts involved is not metaphorical in nature, because metaphor involves a mapping between different domains or frames, always with respect to an identical expression. Indeed subpart links can never be metaphorical, but can only represent contiguity relations between conceptual frames and their elements (①) or relations within taxonomies (②, ③). Obviously there is no taxonomic relation between POSSESSION and EXISTENCE, since neither is POSSESSION an instance of EXISTENCE nor are POSSESSION and EXISTENCE instances of a more general, common concept. The relevant rela-

tion is rather one of part-whole contiguity. If we take away from a conceptual frame of POSSESSION the person «P», who is the POSSESSOR, i.e., the one to whom an object «O» is available as a POSSESSEE, the remaining element «O» of the frame is now available *tout court*, i.e., it represents simply an EXISTING ENTITY (for a more detailed analysis see Koch 2006: 5; for theoretical approaches to metonymy and contiguity see Note 27).

In the following we will focus on inheritance links between constructions, as a typological feature concerning the interrelations between the domains LOCATION, EXISTENCE, and POSSESSION. *Joint constructionalization* — as we should say now rather than *joint lexicalization* — of two or more of these categories is of course an interesting typological feature. For any case of joint constructionalization of categories within this conceptual complex we will have to specify the kind of semantic relation involved.

### 5. Elements of constructional typology: inheritance links of POSSESSION constructions

Let us recall that in the present inquiry the onomasiological focus will be on THEMATIC LOCATION, RHOMATIC LOCATION, and EXISTENCE as target categories, whereas we are interested in (RHOMATIC) POSSESSION only as a source of expressions for these target categories (2.3). For this purpose a constructional typology of POSSESSION will be useful. A more profound analysis in terms of inheritance relations going back from possessives to other constructions would be possible (and is partly already suggested by the labels used for some possessive types) and is certainly interesting in other respects, but will be dispensed with here, except for the particularly intriguing case of Mandarin (see (73)–(75) and 7.1.).

Linguistic typology can distinguish up to seven (sub)types of predicative possessive (Hagège 1982: 48, 2003: 88–89; Hengeveld 1992, 157–183; Heine 1997: 47; Stassen 2001, 2005a, 2009: esp. 38–69; Feuillet 2006: 185–200).<sup>18</sup> We will confine ourselves, like Stassen (2009: 35), to types of realization of (RHOMATIC) alienable POSSESSION, which are presented here in terms of Construction Grammar (see 4.2) and from a strictly synchronic perspective. In the following, V is a variable for full verbal lexical items (including existential verbs) and COP a variable for a copulæ, which also may be zero (see problem C discussed in 4.1 and 4.2).

#### 5.1. Type I: have-possessive

This type corresponds to a ‘transitive’ construction according to the pattern: POR•S V P<sup>EE</sup>•DO, as e.g., in Maltese from our sample:

- (69) Maltese  
*it-tifel ghand=u ktieb* POSSESSION  
 DEF-boy have=PRS.3M.SG book  
 ⟨S<sub>1</sub>⟩ ‘The boy has a book.’

Type I clearly stands out against II–V. As shown on the map attached to Stassen (2005a), it is by no means restricted to the Indo-European language family (see also Creissels 1996),<sup>19</sup> but certainly is not equally distributed over all the language families of the world.

### 5.2. Type II: adjectival possessive

The POSSESSEE is encoded as an adjective with a particular suffix. The construction pattern is: P<sup>OR</sup>•S cop P<sup>EF</sup>•-having<sub>Adj</sub>. There is no attestation in our sample (but see examples in Hagège 1982: 48; Hengeveld 1992: 16; Stassen 2009: 145).

### 5.3. Type III: comitative possessive (or with-possessive)

The POSSESSOR is encoded as an S and the POSSESSEE is marked by a prepositional element, such as *with*: P<sup>OR</sup>•S cop P<sup>EE</sup>•with N. In our sample Sango is a case in point.

- (70) Sango  
*mólengê-kôli ní ayeke na búku* POSSESSION  
 boy DEF COP PREP book  
 ⟨S<sub>1</sub>⟩ ‘The boy has a book.’

### 5.4. Type IV: oblique possessive

5.4.1. *Subtype IV.a: genitive possessive.* The POSSESSOR is encoded as an adnominal modifier to the NP expressing the POSSESSEE: V (P<sup>EE</sup>•S (P<sup>OR</sup>•N)), roughly: ‘P<sup>OR</sup>’s P<sup>EE</sup> exists’. There is no attestation in our sample (but see examples in Hagège 1982: 48; Hengeveld 1992: 164; Stassen 2009: 108–109).

5.4.2. *Subtype IV.b: locational possessive.* The POSSESSOR is encoded as a LOCA and the POSSESSEE as an S, as indicated by the formula: P<sup>OR</sup>•LOCA cop P<sup>EF</sup>•S. In our sample this type is attested e.g., by Estonian:

- (71) Estonian  
*poisi-l on raamat* POSSESSION  
 boy-ADESS be.PRS.3SG book  
 ⟨S<sub>1</sub>⟩ ‘The boy has a book.’

5.4.3. *Subtype IV.c: dative possessive.* The POSSESSOR is encoded as something like an IO or through a preposition like *for*, whereas the POSSESSEE is encoded as an S, which yields us: POR•IO/*for* N COP PRE•S. (‘goal schema’ according to Heine 1997: 59–61). In our sample this type is attested e.g., by Latin stage 1:<sup>20</sup>

- (72) Latin  
*puer-ō liber est* POSSESSION  
 boy-M.DAT.SG book[NOM.SG] be.PRS.3SG  
 ⟨S<sub>1</sub>⟩ ‘The boy has a book.’

#### 5.5. Type V: topic possessive

In our sample Mandarin may be considered as a relevant example. According to Hengeveld (1992: 127–129) the NP expressing the POSSESSOR, *nánhái* ‘boy’ in (73), has the front position of a free topic (T), whereas the NP expressing the POSSESSEE, *shū* ‘book’, follows the verbal item *yǒu*, which could be represented as: POR•T V PRE•NP.

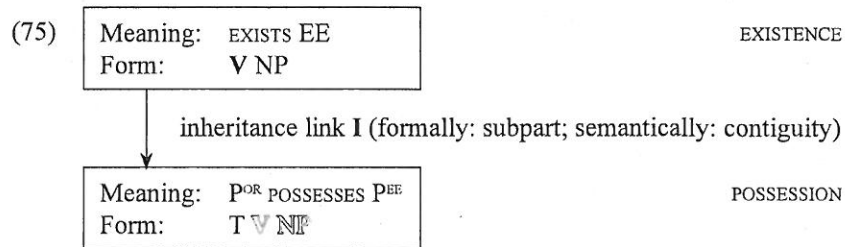
- (73) Mandarin  
*nánhái yǒu hěnduō yǒuqù de shū* POSSESSION  
 boy exist many interesting ATTR book  
 ⟨~S<sub>1</sub>⟩ ‘The boy has many interesting books.’

As *yǒu* means also ‘exist’, the possessive construction (73), i.e., T *yǒu* NP, seems to be an expansion of the existential construction (74), i.e., *yǒu* NP:

- (74) Mandarin  
*yǒu hěnduō yǒuqù de shū* EXISTENCE  
 exist many interesting ATTR book  
 ‘There are many interesting books.’

Since the inverse inheritance relation will be discussed in Section 7.1, it is worthwhile to have a look at a possible inheritance link between EXISTENCE and POSSESSION in this particular possessive type:





On the formal level the existential construction is a subpart of the possessive construction for the following reasons. In a topic-prominent language like Mandarin, which has no morphological case marking and a rather fixed word order, the free topic construction is the way to introduce a new participant into a topicalized position (T) in front of an existential construction. On the semantic level, then, we have to consider, as a starting point, a conceptual situation frame whose only participant is an object «O», constituting the EXISTING ENTITY (= EE) within an EXISTENCE construction (74). Now imagine that a person «P» is introduced as a second, thematic participant (literally: ‘as for «P», «O» exists’). The most obvious interpretation of this new construction, which in fact has been conventionalized in Mandarin, will be that the person «P» is the POSSESSOR, whereas the object «O» is the POSSESSEE. The fact that «O» EXISTS is considered to be one aspect of the fact that «P» POSSESSES «O». In this sense there is a semantic part-whole contiguity between the Mandarin existential and the possessive construction (Table 3, ⊕). See Section 7.1 for further discussion.

The distribution of possessive types represented in our language sample (Appendix B) is given in Table 4, with II and IV.a completely absent. In principle, word order is not taken into consideration here; the relative order of the columns LOCUS and LOCATED is only determined by the compatibility between Tables 5–9. Since we are dealing here exclusively with RHEMATIC POSSESSION (Section 2.3), the POSSESSOR is always thematic and POSSESSEE always rhematic (two rightmost columns).

## 6. Elements of constructional typology: LOCATION constructions

In LOCATION constructions, the major typological problem concerns the internal conceptual organization of the whole domain (Figure 2. *THEMATIC LOCATION + RHEMATIC LOCATION*).<sup>22</sup> In our language sample we observe two main solutions. On the one hand, there are languages that have basically one and the same construction for THEMATIC and RHEMATIC LOCATION (= *generic LOCATION*; Table 5). On the other hand, many languages display a constructional split between THEMATIC and RHEMATIC LOCATION (= TH/RH split; Table 6).

Table 4. Types of predicative possessives within the language sample

Possessive type	Languages and data			
type I 'have'	Beja, Brazilian Portuguese (11)(31)(45), Danish, English (7), French (106), German, Italian, Latin stage 2 (n. 17), Maltese (69), Somali, Spanish, Wolof (48)(50)(67)(68): POSSESSOR•S ▼ POSSESSEE•DO			
	Language	Verbal item/ copula	(thematic) POSSESSOR	(rhematic) POSSESSEE
type III 'comitative'	Gbaya	(zero)	S	with etc.
	Sango (70)	<i>yeke</i>	S	with etc.
	Samba Daka	(zero)	S	with etc.
	Zulu (92)	POSSESSEE → verb complex with S-agreement	S	with etc.
type IV.b 'locational'	Estonian (71)	<i>olema</i>	LOCA	S
	Russian <sup>21</sup>	zero\byt'	LOCA	S
type IV.c 'dative'	Latin stage 1 (72)	<i>esse</i>	IO	S
type V 'topic'	Mandarin (73)	<i>yǒu</i>	T	NP

Verbal items, including copulae, are indicated in the current citation form. 'zero\xyz' indicates the alternation between a zero copula and an explicit copula xyz, according to the present parameter (see 4.1 and 4.2, problem C). — The two rightmost columns show the encoding of the possessive roles.

### 6.1. Generic location

A radical generic LOCATION language is Gbaya, which simply does not display any formal difference between THEMATIC LOCATION = ⟨S<sub>2</sub>⟩ and RHEMATIC LOCATION = ⟨S<sub>3</sub>⟩:

- (76) Gbaya  
*mbéti ʔá gón táp* LOCATION  
 letter COP upon table  
 ⟨S<sub>2</sub>⟩ 'The book is on the table.'  
 ⟨S<sub>3</sub>⟩ 'There is a book on the table.'

Similarly, Samba Daka does not exhibit an essential difference in valency construction and not even in word order between THEMATIC LOCATION (77) and RHEMATIC LOCATION ((35 repeated here as (78)). The insertion into (77) of the demonstrative *déèn*, as the equivalent of a definite article, makes the

Table 5. Organization of LOCATION constructions within the language sample (generic-LOCATION type)

Type of conceptual organization	Languages and data				
generic LOCATION (6.1)	Language	Verbal item/ copula	LOCUS	LOCATED	
	Beja	<i>iifi</i>	LOCA	S	
	Danish	<i>at være</i> or posture verb	LOCA	S	☐
	Estonian (33) (59)(80)(81)	<i>olema</i>	LOCA	S	☐
	Gbaya (76)	<i>ɔ́á</i>	LOCA	S	
	German (1)*(5) (101)	<i>sein</i> or posture verb	LOCA	S	☐
	Latin	<i>esse</i>	LOCA	S	☐
	Russian (37)(38) (61)	zero\by't' or posture verb	LOCA	S	☐
	Sango	<i>yeke</i>	LOCA	S	
	Somali (23)(27) (57)(82)	<i>aalli</i>	LOCA	S	☐
	Samba Daka (35) (63)(77)(78)(79)	(zero)	LOCA	S	

For the citation forms and for “zero\xyz”, see the comment to Table 4. — Those generic LOCATION languages in which the thematic vs. rhematic distinction is reflected by word order reversal of LOCUS and LOCATED are marked by ☐ in the rightmost column. — As for the indication “or posture verb”, see Note 22.

sentence more natural (2.2, 3.1), but does not in the least impinge upon valency construction.

- (77) Samba Daka  
*sáāt-jūkéēn déèn é dāt téb̂əl* THEMATIC LOCATION  
 word-to\_watch DEM MOOD upon table  
 ⟨S<sub>2</sub>⟩ ‘The book is on the table.’
- (78) Samba Daka  
*sáāt-jūkéēn é dāt téb̂əl* RHEMATIC LOCATION  
 word-to\_watch MOOD upon table  
 ⟨S<sub>3</sub>⟩ ‘There is a book on the table.’

Table 6. Organization of LOCATION constructions within the language sample (TH/RH-split type)

Type of conceptual organization		Languages and data					
THEMATIC/ RHEMATIC split ('TH/ RH split')	partly distinct (6.3)	Language	Split	Verbal item/ copula	LOCUS	LOCATED	
		English (8) (9)(15)(18) (26)(47)(56)	thematic	<i>be</i>	LOCA	S	
			rhetic	<i>there is</i> (= <i>there+be</i> )	LOCA	S	
		Italian	thematic	<i>essere</i>	LOCA	S	
			rhetic	<i>c'è</i> (= <i>ci+essere</i> )	LOCA	S	
		Maltese (88) (89)	thematic	<i>zero\kien</i>	LOCA	S	
			rhetic	<i>zero\ kien + hemm</i>	LOCA	S	
		completely distinct (6.2)	Brazilian Portu-guese (12)(28)(43) (55)(83)	thematic	<i>estar</i>	LOCA	S
				rhetic	<i>ter</i>	LOCA	DO
			French (2) (30)(44)	thematic	<i>être</i>	LOCA	S
	rhetic			<i>il y a</i>	LOCA	DO	
	Mandarin (84)(85)		thematic	<i>zài</i>	LOCA	T	
			rhetic	<i>yǒu</i>	LOCA	NP	
	Spanish (27)		thematic	<i>estar</i>	LOCA	S	
			rhetic	<i>hay</i>	LOCA	DO	
	Wolof (34)		thematic	<i>ngi</i>	LOCA	S	
			rhetic	<i>am</i>	LOCA	DO	
	Zulu (86)(87)	thematic	LOCUS → verb complex with S-agreement	LOCA	S		
		rhetic	LOCATED → verb complex with loc. S-agreement	loc. S	- <i>na-</i> 'with'		

For the citation forms and for "zero\xyz", see the comment to Table 4.

This complete syntactic identity between THEMATIC and RHEMATIC LOCATION in some languages of our sample (Beja, Gbaya, Sango, and Samba Daka) correlates, surely, with their rather fixed word order, which does not permit word order to reflect differences in information structure, but it is also due to the perfect constructional unity of THEMATIC and RHEMATIC LOCATION in these languages. The invariable valency construction in question comprises the schematic elements of an S-NP (for the LOCATED) and a LOCA phrase (for the LOCUS), plus optionally the substantive element of a verbal item (copula; zero in Samba Daka (77), (78)):

(79) L<sup>ED</sup>•S [COP] L<sup>US</sup>•LOCA (generic locational construction)

On closer inspection it is this fundamental valency-constructional unity that is revealed to be the central issue for this type, because there are also generic LOCATION languages with a relatively free word order, which in these languages is the most natural means to encode the inverted informational hierarchy, thematic always preceding rhematic participants (2.2). But apart from the word order reversal (=  $\Re$  in Table 5), the underlying locational valency construction is basically invariable according to (79). Estonian represents a case in point, as can be gathered from the THEMATIC LOCATION sentence (80, which simply displays the inverse word order of its RHEMATIC counterpart ((33) repeated here as (81)):

- (80) Estonian  
*raamat on laua-l* THEMATIC LOCATION  
 book be.PRS.3SG table-ADESS  
 <S<sub>2</sub>> 'The book is on the table.'
- (81) Estonian  
*laua-l on raamat* RHEMATIC LOCATION  
 table-ADESS be.PRS.3SG book  
 <S<sub>3</sub>> 'There is a book on the table.'

In our sample Danish, German, Latin, Russian, and Somali behave alike. In Somali several related differences arise between the equivalents of <S<sub>2</sub>> = (27) and <S<sub>3</sub>> = (23):

- word order reversal like in Estonian,
- focus particle *b(aa)* associated with the rhematic element ((27): *miiskuu = miiska b-uu*; (23): *buug baa*),
- use of a shortened verb form of the restrictive paradigm, *yaalla*, after a focused S ((23); see Note 8),
- definite article accompanying the thematic S *buuggu* (27) — a choice due only to greater naturalness of the respective test sentence (see Section 3.1., comment to <S<sub>2</sub>> and <S<sub>3</sub>>).

Nevertheless the valency construction itself, which can be described as (82), remains identical, as a special case of (79).

(82) Somali L<sup>ED</sup>•S *aalli* L<sup>US</sup>•LOCA (generic locational construction)

These observations do not concern inheritance between different constructions, but the organization and structuring of the conceptual “material” to be constructionalized. Speaking of polysemy or inheritance here would be absurd. From the point of view of valency constructions this language type constructionalizes only one unitary category LOCATION:

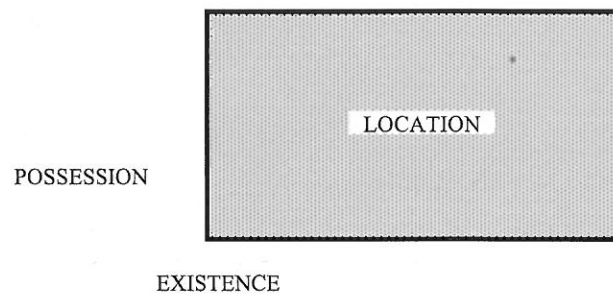


Figure 4. *Constructional unity: generic LOCATION*

6.2. *THEMATIC/RHEMATIC split: complete distinction*

A quite different conceptual solution consists in the very wide-spread constructional split (see 4.2, problem B pr) between THEMATIC and RHEMATIC LOCATION:

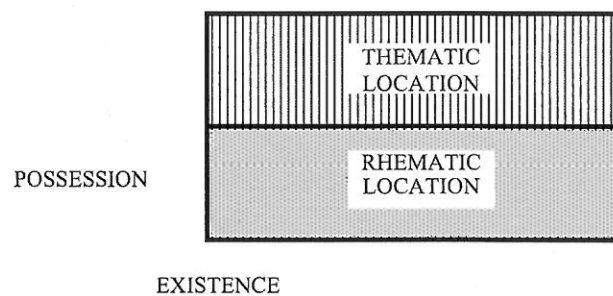


Figure 5. *Constructional split THEMATIC vs. RHEMATIC LOCATION*

Brazilian Portuguese, for example, has two completely distinct constructions, which have already been exemplified and analyzed several times. Both the substantive part, i.e., the verbal item, and the schematic parts differ:

- (83) Braz. Portuguese  $L^{ED} \cdot S \text{ estar } L^{US} \cdot LOCA$  THEMATIC LOCATION: (12), (55)  
 $L^{US} \cdot LOCA \text{ ter } L^{ED} \cdot DO$  RHEMATIC LOCATION: (28), (43)

Another well-known case in point is Mandarin:

- (84) Mandarin  
*shū zài zhūo-shàng* THEMATIC LOCATION  
 book COP table-above  
 <S<sub>2</sub>> 'The book is on the table.'
- (85) Mandarin  
*zhūo-shàng yǒu shū* RHEMATIC LOCATION  
 table-above exist book  
 <S<sub>3</sub>> 'There is a book on the table.'

The formal details of the split may be very different from one language to the other, as already conceived in 4.2 with respect to problem B (INTRA/INTER ~; INTRA ≠). In the Zulu thematic locational construction (86), for instance, the LOCATED is encoded as an S, whereas the LOCUS is integrated, as a locative element, into the verbal complex displaying simple S-agreement (*li-*). In contrast to this, the rhematic locational construction (87) realizes the LOCUS as a locative S, whereas the LOCATED is integrated into a verbal complex centred around the relational element *-na-* and displaying "locative" S-agreement (*-ku-*: CLASS17; see Givón 1984/90: I, 379–380, II: 744):

- (86) Zulu  
*i-bhuku li-se-tafuleni* THEMATIC LOCATION  
 CLASS5-book 3SG.CLASS5-LOC-table.LOC  
 <S<sub>2</sub>> 'The book is on the table.'
- (87) Zulu  
*ku- ne- bhuku e-tafuleni* RHEMATIC LOCATION  
 = *ku- na- i-bhuku e-tafula-ini*  
 3SG.CLASS17- with- CLASS5-book LOC-table-LOC  
 <S<sub>3</sub>> 'There is a book on the table.'

Other languages of our sample that show a sharp distinction between THEMATIC and RHEMATIC LOCATION are French, Spanish, and Wolof (Table 6: "completely distinct"; Koch 2006: 14–17).

### 6.3. THEMATIC/RHEMATIC split: partial distinction

There exists a kind of compromise between the two solutions of the unitary construction for generic LOCATION on the one hand (6.1 with Figure 4) and the con-

structional split between THEMATIC and RHEMATIC LOCATION on the other hand (6.2 with Figure 5). In several languages the RHEMATIC construction seems to be an expansion of the THEMATIC one. Thus in Maltese the main THEMATIC construction consists in  $L^{ED} \cdot S \dots L^{US} \cdot LOCA$  with zero copula under certain conditions<sup>23</sup> (88), whereas the RHEMATIC construction contains the additional element *hemm* 'there':

- (88) Maltese  
*il-ktieb fuq il-mejda* THEMATIC LOCATION  
 DEF-book upon DEF-table  
 <S<sub>2</sub>> 'The book is on the table.'
- (89) Maltese  
*hemm ktieb fuq il-mejda* RHEMATIC LOCATION  
 there book upon DEF-table  
 <S<sub>3</sub>> 'There is a book on the table.'

Interestingly, in our sample English ((26), (56) vs. (15), (47)) and Italian, albeit with an obligatory copula, belong to the same type as Maltese (Koch 2006: 20–22). We can speak of a "compromise" here, because, apart from inevitable word order differences due to informational reversal (6.1), in all three languages the two constructions are neither completely identical nor completely distinct. This is a classical issue to be addressed by Construction Grammar. On the formal level the THEMATIC construction is a subpart of the RHEMATIC construction: In comparison to the English thematic construction [*be* S LOCA] the corresponding rhematic construction [*there be* S LOCA] contains one more (substantive) element, namely *there* (word order is not part of the construction). The same holds for Maltese [*zero\kien* S LOCA] → [*zero\kien hemm* S LOCA]; and similarly for Italian: [*essere* S LOCA] → [*ci essere* S LOCA]. Since THEMATIC and RHEMATIC LOCATION are both taxonomically subordinated to generic LOCATION, the semantic relation involved here is co-hyponymy between constructions (see Table 3, ③).

At the same time, in all these cases the additional element (English *there*, Italian *ci*, Maltese *hemm*) is a substantive one so that we are faced with processes of idiomatization, another issue that can be accounted for by Construction Grammar (Section 4.2, (44), (47)). Nevertheless, the borderline between synchrony and diachrony is not always easy to draw in these cases (see also Section 8.2.1). The weaker the synchronic link, the more we approach a situation of complete distinction (Section 6.2/Figure 5).

## 7. Elements of constructional typology: inheritance links around EXISTENCE constructions

We now address the third concept involved in the semantic space of Figure 2: EXISTENCE, which turns out to be another target of inheritance links.



As already pointed out in Sections 2.2 and 2.3 (Figure 2), we have to distinguish at the level of our onomasiological grid the main conceptual categories LOCATION and EXISTENCE, and furthermore, within LOCATION, the subcategories THEMATIC and RHOMATIC LOCATION, and within EXISTENCE, the situations of generic EXISTENCE and BOUNDED EXISTENCE. With respect to sentences of generic EXISTENCE (e.g., the English sentence (17) repeated below as (90) without the brackets), sentences of BOUNDED EXISTENCE (e.g., (90) including the brackets) specify the validity of the existential statement, introducing a supplementary LOCA phrase ((90): *in Africa*). So we can say that on the semantic level BOUNDED EXISTENCE is a special case of generic EXISTENCE, i.e., that it is taxonomically subordinated to generic EXISTENCE (see Table 3, ②). Formally, a generic EXISTENCE construction is subpart of a BOUNDED EXISTENCE construction, since the latter contains the supplementary LOCA phrase

(90) *There are many unhappy people (in Africa).*

These prerequisites are necessary in order to identify, within this domain, both patterns of constructional split and patterns of joint constructionalization based on inheritance links.

#### 7.1. EXISTENCE and POSSESSION

The inheritance link from POSSESSION to EXISTENCE forms an interesting pattern. Wolof provides an example of this — (48), (49) above and (91):

(91) WOLOF  
*am na gaynde yu bari ci* BOUNDED EXISTENCE  
 have PFV lion REL be\_numerous LOC  
*Afrik*  
 Africa  
 <S<sub>4</sub>> 'There are many lions in Africa.'

Note that, as in many other languages, generic EXISTENCE (49) as well as BOUNDED EXISTENCE (91) are encoded by the same construction, apart from the optionality of the LOCA phrase in the latter case. In our sample (see Table 7 below) Brazilian Portuguese displays essentially the same inheritance pattern POSSESSION → EXISTENCE ((31), (32), (29), (45), (46); for more details see Koch 2006: 4–5, 12–13). This pattern is not restricted to *have*-possessives (type I in Section 5) as a source. Zulu, for instance, displays an inheritance link between the comitative possessive construction (type III: (92)), centered around the relational element *-na-* (92) and one variant of the existential construction, centered likewise around *-na-* ((93): in the following “variant 1”).<sup>24</sup> While the

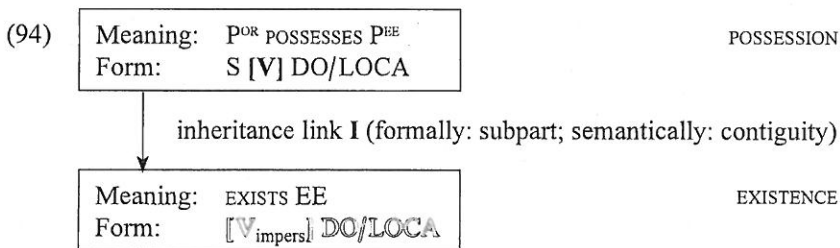
possessive construction has personal S-agreement (-u-), the impersonal existential construction involves locative agreement (-ku-: CLASS17).

- (92) Zulu  
*lom-fana u- ne- bhuku* POSSESSION  
 = *lom-fana u- na- i-bhuku*  
 CLASS1-boy 3SG.CLASS1-with- CLASS5-book  
 ⟨S<sub>1</sub>⟩ ‘The boy has a book.’
- (93) Zulu  
*ku-na aba-ntu aba-hlupheka-yo* EXISTENCE  
 3SG.CLASS17-with CLASS2-person CLASS2-unhappy\_be-REL (variant 1)  
 ⟨~S<sub>5</sub>⟩ ‘There are unhappy people.’

Table 7 summarizes the inheritance patterns of this type in our sample. The rightmost column shows the constructional correspondence between POSSESSEE and EXISTING ENTITY, whereas the POSSESSOR (second column from the right) naturally has no correspondence of this kind.

This inheritance pattern seems to be common worldwide and polygenetic (Clark 1978: 105–107; Bickerton 1981: 66–67; Buchholz 1989; Heine 1997: 137–138; Heine and Kuteva 2002: 241–242; Koch 1999a: 286–288; Clancy 2000: 90–94). Although there is particularly impressive diachronic evidence, this pattern stands out on the synchronic level as well, as our Wolof, Portuguese, and Zulu (variant 1) examples show.<sup>25</sup>

The direction of the inheritance relation is relatively clear, at least for the three languages from our sample just cited. Wolof *am* ‘have’, Portuguese *ter* ‘have’ and Zulu *-na-* ‘with’ are, in the first place, kernels of a POSSESSION construction. No doubt the (impersonal) EXISTENCE construction can be understood — even synchronically — as a reduction of the (personal) POSSESSION construction via deletion of the POSSESSOR-S:



Semantically, this inheritance pattern has already been explained in Section 4.3 in terms of contiguity. If the person «P», who constitutes the POSSESSOR within a POSSESSION frame fades away, the remaining object «O» is still available, but no longer relates to a particular «P». So it switches from the role of POSSESSEE to that of EXISTING ENTITY.

Table 7. *Inheritance links POSSESSION → EXISTENCE*

Inheritance link POSSESSION → EXISTENCE		Languages and data			
no link		Beja, Danish (102)–(105), English (14)(16)(17)(52)(90), Estonian (34)(60)(100), Gbaya, German (4), Italian, Latin, Maltese (98)(99), Russian (39)(62), Sango, Somali (24)(25)(58), Spanish, Samba Daka (36)(64), Zulu (variant 2): Note 24			
unidirectional link POSSESSION → EXISTENCE		Language	Verbal item/ copula	POSSESSOR/ —	POSSESSEE → EXISTING ENTITY
	problems of transparency	French (3) (53)(54)	<i>(y) avoir</i>	S/–	DO
	full transparency	Brazilian Portuguese (11)(29)(32) (45)(46)(94)	<i>ter</i>	S/–	DO
		Wolof (48) (49)(50)(51) (67)(68)(91) (94)	<i>am</i>	S/–	DO
		Zulu (variant 1) (92)(93) (94)	POSSESSEE → verb complex with S-agreement / EXISTING ENTITY → verb complex with loc. agreement	S/–	- <i>na-</i> 'with'
possibly bidirectional link?	Mandarin (73)(74)	<i>yǒu</i>	T/–	NP	

For the citation forms, see the comment to Table 4.

As in other cases that we have discussed, the borderline between the formally perceptible relatedness and the speakers' consciousness is not always easy to draw. Thus the French EXISTENCE construction involving idiomatized *il y a* (3), which in different tenses and modes clearly contains forms of the POSSESSION verb *avoir* (imperfect *il y avait*; future *il y aura*; conditional *il y aurait*, etc.), may involve at least synchronic problems of transparency, especially in the present (see Table 7; discussion of diachronic aspects in Section 8.2.1).

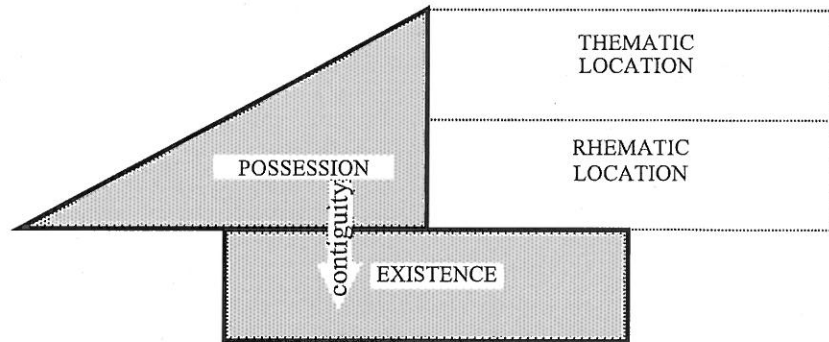


Figure 6. *Constructional polysemy/inheritance POSSESSION-EXISTENCE*

Strikingly, the link described in (94) seems to be the exact reversal of the inheritance link  $EXISTENCE \rightarrow POSSESSION$ , that we observed for Mandarin in Section 5, type V., where we claimed that a person «P» that is introduced into an existential frame putting forward an object «O» is most naturally interpreted as the POSSESSOR of the POSSESSEE «O». In fact both directions of contiguity-based perspectivization within a POSSESSION frame are conceivable. This bidirectionality is particularly palpable in Mandarin because of its rather loose syntactic structure. If one disregards diachronic considerations, which are in any case inconclusive,<sup>26</sup> the synchronic encoding of the POSSESSOR as an initial NP allows two alternative analyses. On the one hand, *yǒu* may be primarily the kernel of an existential construction (74), which can be expanded to the possessive construction (73), as we provisionally assumed in 5.4. On the other hand, *yǒu* may instead be the kernel of a possessive construction (73), which can be reduced to (74). Since all this remains hypothetical, but since a formal subpart link between the two constructions, namely  $[[T] \text{ } yǒu \text{ NP}]$ , is undeniable, in Table 7 we tentatively consider a bidirectional link for this language (see also 8.2.1).

In the other languages under study, the undeniable cognitive bidirectionality of the relation between  $EXISTENCE$  and  $POSSESSION$  is, however, not reflected on the formal level. In the case of Brazilian Portuguese, Wolof, and Zulu (variant 1) we observe a clearly unidirectional link  $POSSESSION \rightarrow EXISTENCE$  with impersonalization, i.e., with a reduction by deletion of the most central syntactic function (S).

## 7.2. *EXISTENCE and LOCATION*

A very widespread link can be observed between  $EXISTENCE$  and  $RHEMATIC LOCATION$  (examples in Sections 4.1 and 4.2). Wolof, for instance, uses a construction

centered around the verb *am* to encode (BOUNDED) EXISTENCE ((49), (91)) as well as RHEMATIC LOCATION:

- (95) Wolof  
*am na ab téere ci kaw taabal ji* RHEMATIC LOCATION  
 have PFV INDEF book LOC upon table DEF  
 <S<sub>3</sub>> 'There is a book on the table.'

In our sample the same condition of a link EXISTENCE ↔ RHEMATIC LOCATION holds for Brazilian Portuguese, Danish (variant 2), English, French, Italian, Maltese, Mandarin, Spanish, and Zulu (variant 1). Since the experiential intertwining of EXISTENCE and LOCATION is supported by psychological, philosophical, and linguistic observations (here a selection: Lyons 1967: 390–391; Bolinger 1977: 99; Holenstein 1980: 32; Bogacki 1988: 24–25; Feuillet 1998: 706 = 2006: 170; very cautiously: Seiler 1983: 57–58), the link EXISTENCE ↔ RHEMATIC LOCATION is not a metaphorical mapping between different frames. The cognitive relation involved is not taxonomic in nature either. Neither is EXISTENCE necessarily a special case of LOCATION (see (14)), nor is a statement on LOCATION necessarily a statement on EXISTENCE (Section 2.2). Nevertheless, there is an important referential overlap between a prototypical subset of situations of EXISTENCE and of LOCATION, which corresponds exactly to the subcategories of locally BOUNDED EXISTENCE and RHEMATIC LOCATION. If a given entity exists in a particular local area, it must be located there; and if a given entity is located in a particular local area, it also exists there. This very strong contiguity within the same frame is a natural base for a figure-ground effect, and hence for a metonymic polysemy between the constructions in question.<sup>27</sup>

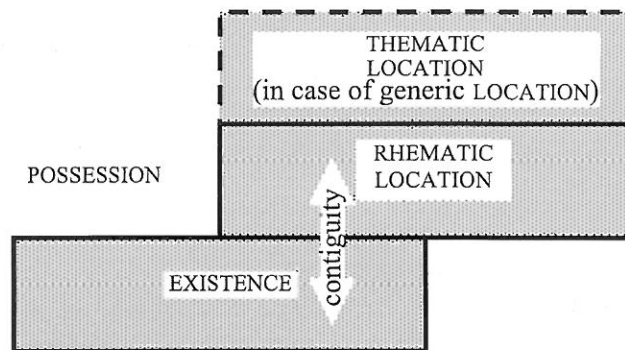


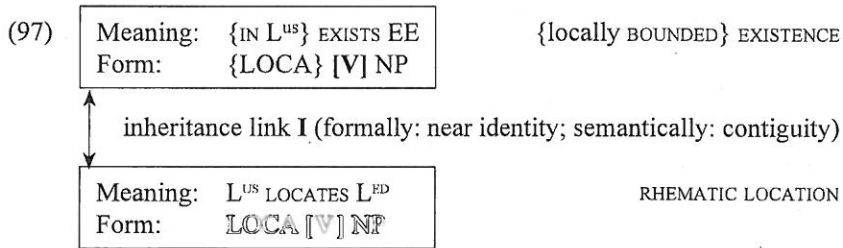
Figure 7. *Constructional polysemy/inheritance EXISTENCE–(RHEMATIC) LOCATION*

Since English is one of the relevant languages, this can be illustrated by the following Janus-faced example:

- (96) a. *There is a lot of beer in the fridge.*  
 Context: We cannot put anything else in the fridge. → RHEMATIC LOCATION
- b. *There is a lot of beer in the fridge.*  
 Context: We will have enough to drink. → locally BOUNDED EXISTENCE

An utterance like the one in (96) constitutes a kind of “bridge” between the two concepts. Speakers can highlight, for instance, either a problem with the LOCUS caused by the LOCATED, etc. (96a) or the interest in an EXISTING ENTITY (in a given LOCUS), the use they can make of it, and so on (96b). Case (96a) points to (RHEMATIC) LOCATION, case (96b) to (locally) BOUNDED EXISTENCE. In Table 8 the column “bridge . . .” shows that all the EXISTENCE ↔ RHEMATIC LOCATION languages display types of constructions that are open to this kind of figure-ground effect (“yes”). Moreover, for several languages the numbers of the relevant examples cited in this paper are given. Note that the possibility of “bridging” concerns the constructions involved as such and not necessarily every single example cited.

As we noted in Section 2.2 and at the beginning of this Section 7, the LOCA phrase is optional in (locally) BOUNDED EXISTENCE, but obligatory in RHEMATIC LOCATION. So the corresponding inheritance link (81) between EXISTENCE and RHEMATIC LOCATION is not based on complete formal identity, but on what we may call “near identity”. The nonobligatory character of L<sup>US</sup>•LOCA is marked by { . . . }.



The contiguity between (locally BOUNDED) EXISTENCE and RHEMATIC LOCATION seems to be so strong that the link between the corresponding constructions is clearly bidirectional, as represented in (97) and Figure 7. This does not only hold on the diachronic level (Koch 1999a: 291–294), but also in synchrony, as shown in Table 8:

- (i) (The type EXISTENCE ↔ RHEMATIC LOCATION comprises languages with synchronically uncertain directionality, such as Mandarin (see Table 7 and the discussion in 7.1), or without any synchronic link to POSSESSION and THEMATIC LOCATION, such as Spanish (Note 25).

Table 8. *Inheritance links* EXISTENCE ↔ LOCATION

Inheritance link?		Languages and data				
		Language	“Bridge” locally BOUNDED EXISTENCE ↔ RHEMATIC LOCATION	Verbal item/ copula	LOCUS	LOCATED/ EXISTING ENTITY
link EXISTENCE ↔ RHEMATIC LOCATION	“possession languages”	Brazilian Portuguese (28) (29)(32)(43)	yes (29)↔(30)	<i>ter</i>	LOCA { }	DO
		French (2)(3)(44) (53)(54)	yes (53)↔(44) (54)↔(2)	<i>il y a</i>	LOCA { }	DO
		Wolof (49)(51) (91)(95)	yes (91)↔(95)	<i>am</i>	LOCA { }	DO
		Zulu (variant 1) (87)(93)	yes	EXISTING ENTITY/ LOCATED → verb complex with loc. S-agreement	loc. S { }	- <i>na-</i> 'with'
	neutral/ undecidable languages	Mandarin (74) (85)	yes	<i>yǒu</i>	LOCA { }	NP
		Spanish: Note 25	yes	<i>hay</i>	LOCA { }	DO
	“location languages”	Danish (variant 2) (103)(105)	yes	<i>at være</i>	LOCA { }	S
		English (14)(15) (16)(17)(18)(47) (52)(90)	yes (14)↔(15) (52)↔(47)	<i>there is (=</i> <i>there+be)</i>	LOCA { }	S
		Italian	yes	<i>c'è (=</i> <i>ci+essere)</i>	LOCA { }	S
		Maltese (89)(98) (99)	yes (98)↔(89)	<i>zero\kien +</i> <i>hemm</i>	LOCA { }	S

Table 8. (Continued)

link EXISTENCE ↔ LOCATION	Beja	yes	<i>iffi</i>	LOCA { }	S
	Estonian (33)(34) (59)(60)(80)(81) (100)	yes (34)↔(33) (60)↔(59)	<i>olema</i>	LOCA { }	S
	Gbaya	yes	<i>ʔá</i>	LOCA { }	S
	Latin	yes	<i>esse</i>	LOCA { }	S
	Russian (37)(38) (39)(40)(61)(62)	yes (39)↔(37) (40)↔(38)	<i>zero\byt'</i>	LOCA { }	S
	Sango	yes	<i>yeke</i>	LOCA { }	S
	Samba Daka (35) (36)(63)(64)(77) (78)	yes (36)↔(35) (64)↔(63)	(zero)	LOCA { }	S

For the citation forms and for “zero\xyz”, see the comment Table 4. — The rightmost column shows the constructional correspondence between LOCATED and EXISTING ENTITY. In the second column from the right, {LOCA} or { } indicate that the LOCUS participant is optional with EXISTENCE (see the beginning of Section 7).

- (ii) The type EXISTENCE ↔ RHEMATIC LOCATION comprises a group called here “possession languages”, which display a — synchronically more or less transparent — unidirectional link POSSESSION → EXISTENCE (see Table 7). We have, moreover, in all these languages a link between EXISTENCE and RHEMATIC LOCATION: Brazilian Portuguese (29) → (28); French (54) → (2) or (53) → (44); Wolof (91) → (95); Zulu, variant 1, (87) → (93). So an inheritance chain POSSESSION → EXISTENCE → RHEMATIC LOCATION seems more plausible. If POSSESSION is at the beginning of the chain, RHEMATIC LOCATION must be at its end.
- (iii) The type EXISTENCE ↔ RHEMATIC LOCATION also comprises a group called here ‘location languages’, which display a synchronically more or less transparent link THEMATIC LOCATION — RHEMATIC LOCATION (see Table 5, “partly distinct” and 6.3): Danish (variant 1), English, Italian, and Maltese. For these ‘location languages’ the opposite direction of inheritance is more likely, even in synchrony, which can be shown on the basis of Maltese examples. If we compare (89) Maltese *hemm ktieb fuq il-mejda* ‘There is a book on the table’ with (88) *il-ktieb fuq il-mejda* ‘The book is on the table’, the construction (89) presupposes the existence of (88). Starting from the thematic locational construction (88) we easily get to the rhematic locational counterpart — and



not vice versa — by adding the locative *hemm* ‘there’, which is a thematic anticipation of the LOCUS *fuq il-mejda* and thereby occasions a rhematization of the LOCATED *ktieb*. From there the above described contiguity link quite naturally leads to a bounded existential construction (98) and, by concealing the LOCUS, to a generic existential construction (99). So an inheritance chain THEMATIC LOCATION → RHEMATIC LOCATION → EXISTENCE seems more plausible for ‘location languages’ of this kind. If THEMATIC LOCATION is at the beginning of the chain, EXISTENCE must be at its end.

- (98) Maltese  
*hemm hafna ljun=i f'Afrika* BOUNDED EXISTENCE  
 there many lion=PL in-Africa  
 ⟨S<sub>4</sub>⟩ ‘There are many lions in Africa.’
- (99) Maltese  
*hemm hafna nies masakin* generic EXISTENCE  
 there many people poor.PL  
 ⟨~S<sub>5</sub>⟩ ‘There are many poor people.’

Note however that in any of the EXISTENCE ↔ RHEMATIC LOCATION languages — and for any individual construction — the synchronic directionality of the link is a matter of empirical investigation and may even remain hard to determine. Furthermore the conceptual distinction EXISTENCE/RHEMATIC LOCATION itself raises serious questions (8.2.2).

Until now we have stressed the link between EXISTENCE and RHEMATIC LOCATION. In fact, all the languages concerned exhibit a THEMATIC/RHEMATIC split (see Table 5 and Section 6.2/6.3). However, the contiguity between EXISTENCE and RHEMATIC LOCATION is so strong that it has an impact on languages with generic LOCATION as well (Table 5 and Section 6.1). Thus Estonian uses for BOUNDED EXISTENCE a construction, based on *olema* (34), that is nearly identical to the RHEMATIC LOCATION construction (33) and, with respect to valency, even to the THEMATIC LOCATION construction (80). As usual, the construction for generic EXISTENCE (100) is a subpart of the BOUNDED EXISTENCE construction (34).

- (100) Estonian  
*on palju õnnetu-id* generic EXISTENCE  
 be.PRS.3SG many unhappy-PART.PL  
*inimes-i*  
 people-PART.PL  
 ⟨S<sub>5</sub>⟩ ‘There are many unhappy people.’

The type EXISTENCE ↔ LOCATION in Table 8 behaves like this. The column “bridge . . .” has the value “yes” for all these languages too, and, here too, we give the numbers of the relevant examples cited in this paper. In Figure 7 the

area surrounded by the broken line indicates, for this type, the inclusion of THEMATIC LOCATION in the inheritance complex.

A very different solution is found in some languages of our sample that show a clear split between EXISTENCE and LOCATION (Table 9; see Figure 8; Koch 2006: 17–20). As observed in Section 2, Somali is a case in point, because it opposes the generic LOCATION construction with *aalli* ((23), (27)) to the BOUNDED EXISTENCE construction with *jiri* (24).

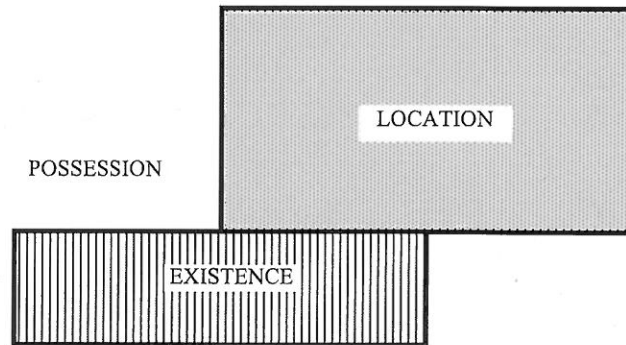
Table 9. Split EXISTENCE vs. LOCATION

Inheritance link?	Languages and data				
	Language	Split	Verbal item/ copula	LOCUS	LOCATED/ EXISTING ENTITY
no link: split EXISTENCE vs. LOCATION	Danish (variant 1) (102)(104)	EXISTENCE	<i>findes</i>	{LOCA}	S
		LOCATION	<i>at være</i>	LOCA	S
	German (1)*(4) (5)(101)	EXISTENCE	<i>es gibt</i>	{LOCA}	DO
		LOCATION	<i>sein</i>	LOCA	S
	Somali (23)(24) (25)(27)(57)(58)	EXISTENCE	<i>jiri</i>	{LOCA}	S
		LOCATION	<i>aalli</i>	LOCA	S
	Zulu (variant 2): Note 24	EXISTENCE	<i>khona</i> with S-agreement	{LOCA}	S
		RHEMATIC LOCATION	LOCATED → verb complex with loc. S-agreement	loc. S	- <i>na</i> - 'with'

For the citation forms, see Table 4. — The rightmost column shows the constructional correspondence between LOCATED and EXISTING ENTITY. In the second column from the right, {LOCA} or { } indicate that the LOCUS participant is optional with EXISTENCE (see the beginning of Section 7).

This split can be very rigorous (Figure 8). As we saw at the beginning of this paper, German, for instance, does not at all admit EXISTENCE-like constructions for RHEMATIC LOCATION (1). In this case the LOCATION construction (5) is as compulsory as for THEMATIC LOCATION (101).

(101) German  
*das Buch ist / liegt* THEMATIC LOCATION  
 DEF.N.NOM.SG book be.PRS.3SG / lie-3SG  
*auf dem Tisch*  
 upon DEF.M.DAT.SG table  
 <S<sub>2</sub>> 'The book is on the table.'

Figure 8. *Split EXISTENCE vs. LOCATION*

Nevertheless the effect of the EXISTENCE-LOCATION contiguity described above may produce some permeability in the opposite direction. Danish, for example, admits two construction variants especially for BOUNDED EXISTENCE: a genuine existential construction (102)/(104) and a construction that very much resembles the one for RHOMATIC LOCATION (103)/(105). In Table 9 we have labeled (102) and (104) as “variant 1”, whereas (103) and (105) figure as “variant 2” in Table 8.<sup>28</sup>

- (102) Danish  
*der find-es mang-e løv-er i Afrika* BOUNDED EXISTENCE  
 there find-PASS many-PL lion-PL in Africa  
 ⟨S<sub>4</sub>⟩ ‘There are many lions in Africa.’
- (103) Danish  
*der er mang-e løv-er i Afrika* BOUNDED EXISTENCE  
 there be.PRS many-PL lion-PL in Africa  
 ⟨S<sub>4</sub>⟩ ‘There are many lions in Africa.’
- (104) Danish  
*der find-es mang-e ulykkelig-e mennesk-er* generic EXISTENCE  
 there find-PASS many-PL unhappy-PL person-PL  
 ⟨S<sub>5</sub>⟩ ‘There are many unhappy people.’
- (105) Danish  
*der er mang-e ulykkelig-e mennesk-er* generic EXISTENCE  
 there be.PRS many-PL unhappy-PL person-PL  
 ⟨S<sub>5</sub>⟩ ‘There are many unhappy people.’

In this realm Zulu too has two variants of constructional configurations. Variant 1 corresponds to Figure 7, i.e., to joint constructionalization of EXISTENCE and

RHEMATIC LOCATION ((93) → (87)), whereas variant 2 corresponds to Figure 8, i.e., to a split between these categories (see Note 24).

## 8. Results and open questions

### 8.1. *Synopsis of the results*

We are now in a position to draw up a synopsis of the constructional-typological results achieved (Table 10). The lines correspond to the languages of the sample, the columns to the three concepts that constitute the basis of our onomasiological investigation. Within the columns, inheritance properties as well as characteristic distinctions are indicated. From left to right the table shows typological options for LOCATION, EXISTENCE, and POSSESSION (the latter being considered here only as a possible source, but not as target of inheritance links: 2.3).

Though the limitations of the sample (3.2) must be kept in mind and the results are subject to checking by a larger sample, some tendencies can be gathered from Table 10 (in the following the number of languages concerned by a given feature is indicated by a number in square brackets; different stages or variants of one and the same language are counted as 0.5 each).

- a. A fundamental typological parameter is the choice between generic LOCATION (10 languages) and the THEMATIC/RHEMATIC split (9 languages, of which 3 with partial transparency). Both options are polygenetic, since they occur in completely unrelated and distant languages of the sample. Yet some genetic or areal preferences are visible. The Afro-Asiatic, the Northern Volta-Congo, and the Northern Bantoid languages of the sample all have generic LOCATION (Beja, Somali; Gbaya, Sango, Samba Daka). The same holds for the Germanic languages except English (Danish, German) as well as for Estonian and Russian, two languages that are not related to each other, but at least areally contiguous. An interesting typological change has taken place between Latin (stages 1 and 2), with generic LOCATION, and the Romance languages displaying a TH/RH split (Brazilian Portuguese, French, Italian, Spanish).
- b. As for the more or less strict distinction between EXISTENCE and LOCATION, it is found in three quite distinct areas (German and Somali as well as Danish, variant 1, and Zulu, variant 2), but this is an exceptional situation in the whole sample. Further investigations based on a larger sample would be required to check its worldwide importance. The majority

Table 10. *Constructional-typological synopsis*

Language	LOCATION	EXISTENCE	POSSESSION									
	(see Section 6 and Tables 5 and 6)	(see Section 7 and Tables 7-9)	(see Section 5 and Table 4)									
Zulu (variant 2) (Note 24)	TH/RH split	≠ LOCATION	comitative type (III.b)									
Zulu (variant 1)				↔ RH-LOCATION	← POSSESSION							
Wolof		← POSSESSION (transp.?)	have type (I)									
Brazilian Portuguese						(↔? POSSESSION)	topic type (V)					
French								have type (I)				
Mandarin									have type (I)			
Spanish										have type (I)		
English											have type (I)	
Italian												have type (I)
Maltese												
Sango	↔ generic LOCATION											
Samba Daka				comitative type (III.b)								
Estonian		locational type (IV.b)										
Russian			dative type (IV.c)									
Latin, stage 1					comitative type (III.b)							
Gbaya						comitative type (III.b)						
Beja							have type (I)					
Latin, stage 2								have type (I)				
Danish, var. 2 / 1									have type (I)			
German										have type (I)		
Somali	have type (I)											

Explanatory notes: ← = inheritance link                      TH = THEMATIC  
 ↔ = bidirectional inheritance link                      RH = RHEMATIC  
 ≠ = no inheritance link                                      transp. = transparent

of the languages of our sample shows some kind of link between EXISTENCE and LOCATION, which in detail depends on the internal organization of the latter concept. Generic LOCATION languages of this kind always have a (bidirectional) link between EXISTENCE and generic LOCATION [7 languages]. Since we are in fact only dealing here with constructions of EXISTENCE involving a rhematic EE (n. 10), TH/RH split languages almost necessarily display a link between EXISTENCE and RHEMATIC LOCATION [8,5 languages]. (For the mixed case of Danish see 7.2. and note 29.)

- c. A general hypothesis about the domain LOCATION + EXISTENCE is at least suggested by our sample (7.2.). In theory one could imagine that there are languages with a threefold constructional subdivision: THEMATIC LOCATION VS. RHEMATIC LOCATION VS. EXISTENCE. But this would not be very economical. So languages tend to reduce conceptual diversity according to criteria of salience on the two semantic levels of sentence structure involved, namely the propositional level (LOCATION VS. EXISTENCE) and the informational level (THEMATIC VS. RHEMATIC). One very important group of languages opts for *informational salience*, linking by a contiguity-based inheritance RHEMATIC LOCATION and EXISTENCE (with a rhematic EE) and opposing them, through the TH/RH split, to THEMATIC LOCATION (9 languages: Brazilian Portuguese, English, French, Italian, Maltese, Mandarin, Spanish, Wolof, Zulu, variant 1). Another smaller group opts for *propositional salience*, opposing (generic) LOCATION to EXISTENCE ([3 languages]: Somali, German, and partly Danish). In between there is another important group of languages that, disregarding the salience criteria, covers the whole domain by a contiguity-based inheritance between LOCATION and EXISTENCE [7 languages]: Bedja, Estonian, Gbaya, Latin, Russian, Sango, Samba Daka). We can suppose that, in general, the options TH/RH split and EXISTENCE  $\neq$  LOCATION are antagonistic, a hypothesis that should be tested on a larger language sample. There is only one partial counterexample in our sample: Zulu, variant 2.
- d. An inheritance link from POSSESSION to EXISTENCE is present, but not very frequent in our sample (only 3 clear cases: Brazilian Portuguese, Wolof, Zulu [variant 1]; less certain: French and Mandarin). There is, however, enough evidence that on a worldwide scale this connection occurs much more frequently both diachronically and synchronically (see Section 7.1). At least in our sample all the languages (potentially) concerned have a link EXISTENCE  $\leftrightarrow$  RHEMATIC LOCATION as well as TH/RH split. Certainly the inheritance chain POSSESSION — EXISTENCE — RHEMATIC LOCATION is a salient means of setting off RHEMATIC LOCATION against THEMATIC LOCATION (often involving a copula). The typological importance of this inheritance chain should be checked on the basis of a larger sample.

- e. Apart from this inheritance chain, Table 10 shows hardly any correspondences between particular POSSESSION constructions and particular LOCATION and/or EXISTENCE constructions, while it was relatively easy to establish, across the languages, typical correspondences between types of LOCATION constructions and types of EXISTENCE constructions. It must be left for further research, for instance, to find out if the locational type of possessives (IV.b) always corresponds to generic LOCATION constructions for LOCATION as well as for EXISTENCE, as in the case of Estonian and Russian.
- f. An interesting typological pattern is represented by English, Italian, and Maltese. These languages have three features in common: the TH/RH split (with partial transparency between the lexical items: 6.3), an inheritance relation between EXISTENCE and RHEMATIC LOCATION, and a *have* construction (type I) for POSSESSION. For English and Italian both areal contact and a genetic explanation are excluded, because the common feature cluster is not a typically Indo-European one. Moreover, both of these languages behave differently in this respect from the other languages of their families: English vs. German and partly Danish; Italian vs. Brazilian Portuguese, French, and Spanish.<sup>29</sup> The parallelism between English and Italian must therefore be polygenetic. Between Maltese and Italian there is absolutely no genetic connection, but as Maltese has been under Italian influence since 1090 (first by the Sicilian dialect, later on also by Standard Italian), areal language contact and borrowing from Italian are a matter of fact (Kontzi 1998). In spite of the etymological independence of the lexical material involved, the constructional organization of THEMATIC and RHEMATIC LOCATION in Maltese ((88), (89)) could be a *calque* from Sicilian and/or Standard Italian (which are constructionally similar to each other in this domain).
- g. The inheritance link LOCATION → POSSESSION is quite common. Indeed, the locational possessive type implies a link of this kind (Section 5., IV.b, and Example (71)). Since in prototypical cases the POSSESSEE is near to the POSSESSOR, the latter is metonymically conceptualized as a LOCUS. In contrast to this, it emerges from Table 10 that the opposite inheritance link POSSESSION → LOCATION is exceptional. It occurs only in Zulu (variant 2), an apparent counterexample which can probably be discarded in view of the situation in variant 1.<sup>30</sup> Why is POSSESSION → LOCATION improbable? A possible explanation could reside in the relative probability of human and nonhuman entities to appear in the relevant participant roles. Prototypical POSSESSORS are human, whereas prototypical LOCI are nonhuman. But nonhumans simply cannot occur as prototypical POSSESSORS, whereas humans can at least serve as a reference point for prototypical LOCI (e.g., 'near X'). Consequently it is easy to

metonymically conceptualize a human POSSESSOR as the reference point of a prototypical LOCUS (Example (71)). This corresponds to a LOCATION → POSSESSION inheritance link. But it seems strange to conceptualize a nonhuman LOCUS as a prototypical POSSESSOR, apart perhaps from poetic metaphors.<sup>31</sup>

Among other things, Table 10 shows that genetic relationship and constructional-typological similarity do not necessarily go hand in hand. This can be illustrated by several examples: LOCATION and EXISTENCE in English vs. Danish/German; EXISTENCE in Brazilian Portuguese (possibly also French) vs. Italian; EXISTENCE in Beja vs. Somali.

All in all, the information contained in Table 10 is an interesting starting point for future research based on a larger sample, and for more detailed analyses, as for English, Italian and Maltese.

## 8.2. Questions

The linguistic material analyzed in this paper and the results presented in Sections 5–7 and 8.1 naturally raise a number of methodological and theoretical questions.

8.2.1. *Synchrony and diachrony.* In general, linguistic typology makes use of both synchronic and diachronic information. No doubt typical paths of grammatical and semantic change reveal important patterns of conceptualization whose fossilized remains we often rediscover in synchronic structure. Nevertheless, at the level of the data we have to distinguish clearly between diachronic and synchronic facts. We have made clear that this study is only intended to be an inventory of the typological patterns that can be identified in the synchrony of the languages considered. We have therefore excluded diachronic information as far as possible.

But things are not always so easy. Our indecision about the synchronic direction (or even bidirectionality) of the inheritance link between the EXISTENCE and the POSSESSION construction in Mandarin (7.1; Table 7) ultimately has a diachronic background. It is not clear whether the possessive *yōu* construction has undergone a transitivity process that Stassen (2001: 956–957, 2005a: 5–7, 2009: 208–243) calls a *have*-drift, in this case a shift from a topic possessive (type V) to a *have*-possessive (type I).

Idiomatization, one of the main tenets of Construction Grammar, has a synchronic as well as a diachronic aspect. Synchronically, we have to face the problem of motivation: is the relation between a given idiom and each of its parts still transparent, i.e., anchored in the speakers' consciousness?



Diachronically, we have to cope with demotivation processes, which reduce the transparency of linguistic signs, including constructions. If a strictly synchronic description of idioms is needed, the linguist has to do justice to the modern speakers' consciousness and to resist the temptation of diachronic *re*-motivation on the basis of current etymological knowledge. In our material we encounter problems of this kind with two types of elements.

First, the link POSSESSION → EXISTENCE, which is transparent in languages like Wolof (Examples (48), (49), and (91); see 7.1 and Table 7), is possibly blurred out in a language like French, where the EXISTENCE construction (see (3); also (53) and (54)) as well as the RHEMATIC LOCATION construction ((30), (44) contain an additional substantive element (*y*) compared to the POSSESSION construction (106):

- (106) French  
*le garçon a un livre* POSSESSION  
 DEF.M.SG boy have.PRS-3SG INDEF.M.SG book  
 ⟨S<sub>1</sub>⟩ 'The boy has a book.'

Whereas in Old French *i a* was still in concurrence with simple *a* for EXISTENCE, its successor *il y a* has been completely idiomatized in Modern French (as for the etymology of these expressions see Kawaguchi 1991; Koch 1999a: 285, 288–290, 300 Note 12). Moreover, processes of phonological reduction and morphological fusion are already working, especially in spoken varieties: *il y a* [ilia] > [ilja] > [ja] (Koch 2006: 16, Touratier 2006). If the inheritance link had already faded away in modern speakers' consciousness, French would belong to the type "no link" in Table 7.

Second, an even more subtle problem is raised with the inheritance link THEMATIC → RHEMATIC LOCATION (6.3 and Table 5) in languages like English, Italian and Maltese ((88), (89)). The RHEMATIC construction contains an additional substantive element (English *there*, Italian *ci*, Maltese *hemm*) compared to the THEMATIC construction. The diachronic source of the RHEMATIC in the THEMATIC construction is uncontroversial, and even synchronically the two constructions seem to be identical, apart from word order, with the sole adjunction of a small adverbial element. But even in this case synchronic transparency can no longer be taken for granted. Typical fusion processes (e.g., English *there is* > *there's*), elliptical tendencies (Maltese *hemm* without the — optional — copula) and certain agreement problems (e.g., English *There's some difficulties*; Givón 1990[1984]: I, 380, II, 743–744; Koch 2003: 157–159) might indicate that in the speakers' synchronic consciousness the feeling of the inheritance relation is fading away.

We cannot decide on these idiomatization problems here, but only evoke them. The question of synchronic motivation/transparency has to be investigated empirically and individually for each language and each particular con-

struction (for the methodological problems raised by lexical motivation, see Marzo and Rube 2006; Koch and Marzo 2007: 281–284). In the end the establishment of synchronic inheritance patterns must depend on speaker judgments.

8.2.2. *The conceptual grid.* The onomasiological approach to lexical — and constructional — typology that we have taken in this paper is necessarily faced with the problem of the conceptual grid that will serve as a *tertium comparationis* (Koch 2001a: 1143; Haspelmath 2007; Koptjevskaja-Tamm et al. 2007: 160–162, 178–180; Koptjevskaja-Tamm 2008: 7–13, 24–26; Evans 2011: 508–517; Stassen 2011). Our starting point has been a four-category grid that is widely used in the relevant literature (Figure 1). Because of several inconsistencies and asymmetries we had to gradually re-elaborate this grid and finally came to our semantic space LOCATION–EXISTENCE–POSSESSION, which we reduced to its essential (sub)categories (Figure 2) for practical reasons. Intuitively, everyone would agree that LOCATION, EXISTENCE, and POSSESSION are absolutely fundamental, quasi-anthropological categories. But is this sufficient to take them for granted as a base for a valid onomasiological crosslinguistic investigation?

In search of a serious inventory of crosslinguistically conceptual invariants, one might think of the very cautious ‘Natural Semantic Metalanguage’ (NSM) approach, which has shown that the number of “primes”, i.e., universally expressed meanings, is extremely low: 64 according to a recently established version of the inventory (Goddard 2010; see also Wierzbicka 1996; Goddard 2001; Goddard and Wierzbicka 2002; Goddard 2008). In lexical semantics, the number of primes should be even lower, because some of these 64 meanings are not typically “lexical”.

Interestingly, the most recent NSM inventory contains just the three primes LOCATION, EXISTENCE, and POSSESSION,<sup>32</sup> which are glossed as BE (SOMEWHERE), THERE IS, and HAVE respectively. This is encouraging, but our preliminary reflections in Section 2 as well as our subsequent inquiry have shown that we need, at least in some respects, a more fine-grained grid, especially in the domain LOCATION. This issue may elucidate the difference between a “substantialist” approach and a “relational” approach.

I call “substantialist” an approach that works out, like NSM, a sort of universal conceptual ‘material’ underlying the semantics of any language and that justifies the assumption of a given meaning, concept, etc. by the fact that it can be supposed to be lexicalized in every language of the world. Given the highly historical constitution of the lexicon of human languages, the results of such an enterprise must be very restricted quantitatively, as shown by the no more than 64 NSM ‘primes’.

“Relational” approaches are more open to interlinguistic variation, without neglecting comparability. Structural semantics, when applied to language

comparison, was a relational approach (e.g., Hjelmslev 1970[1957]: 107; Ullmann 1966: 251–252; Lehrer 1974; Baldinger 1984: 83). Certainly it was insufficient insofar as it confined itself to taxonomic relations in the lexicon, whereas modern lexical semantics has to take into account other cognitive relations as well (see also 8.2.3). But the relational principle in itself appears to be rather fruitful for lexical comparison and typology. The linguist chooses a semantic “area”, which s/he can define more or less accurately, and observes what “is” within this area in different languages, what conceptual distinctions arise, what is the range covered by one and the same word, etc. Once s/he has discovered the relevant parameters, s/he has to define them very accurately, of course, and to test their interlinguistic relevance. In this sense Figure 2 constitutes a kind of semantic map (see e.g., Haspelmath 2003; Evans 2011: 525–528). Figures 4, 5, 6, 7, and 8 correspond to different types of constructional distribution with respect to the categories of this map.

It is this way that we came to distinguish, for example, *THEMATIC* and *RHEMATIC LOCATION* (Figure 2), a lexical-constructional split that was demonstrated to be extremely useful during our inquiry — at least for those languages that constructionalize this taxonomic distinction between two informational modes of presenting *LOCATION* (see Figure 4 vs. 5). What could we have said about this in a substantialist view? Is *LOCATION* really a semantic prime? Only one type of language, those with generic *LOCATION*, lexicalizes this concept directly, whereas languages of the split type do not lexicalize it in a unitary form (Table 5). The concept of *LOCATION* is thus not universal in the strict sense, but it is worthwhile to study the semantic “area” of *LOCATION* to capture different lexicalization and constructionalization patterns (with and without split).

Unfortunately one serious problem remains with our conceptual grid. In Section 7.2 we identified only a few languages of our sample that constructionalize *EXISTENCE* and *LOCATION* separately (Table 9 and Figure 8). In contrast to this we found that many languages exhibit one and the same construction for *EXISTENCE* and *RHEMATIC LOCATION* or even generic *LOCATION* (Table 8 and Figure 7). We interpreted this as a case of metonymic polysemy, because the concepts of *EXISTENCE* and *LOCATION* are manifestly contiguous to each other. The underlying contiguity seems to be so strong that it operates in both directions. Nevertheless we conceived the conceptual grid of this semantic “area” in such a way that *EXISTENCE* and *RHEMATIC LOCATION* constitute two separate, though related concepts (Koch 1993: 181–183, 1999a: 280–282, 298 Note 4, 2006: 3–4). This view is shared by Lyons (1967: 390; see below Note 10) and Hengeveld (1992: 125–126), but not at all by an important number of other linguists (Clark 1978; Bickerton 1981: 245 — see Figure 1 —; Hagège 1982: 46, 49; Freeze 1992: 553; and — very explicitly — Feuillet 1998: 706–707 = 2006: 170–171). The latter group simply conceives the conceptual grid of this semantic area differently. Since so many languages do not separately lexicalize/

constructionalize EXISTENCE and RHEMATIC LOCATION, there may not be any recognizable conceptual difference for the speakers of these languages. This would be a spectacular case of linguistic relativism. Thus for many languages the distinction between EXISTENCE and RHEMATIC LOCATION, even if it is perceptible on the level of different types of sentences (see for English Examples (14)–(22)), may constitute only a superficial effect due, for instance, to the referential qualities of the NPs involved, whereas on a deeper level there would be conceptual and constructional identity.

Recall that a similar situation arises with two other famous examples of lexical typology: the languages that have one and the same word for the contiguous “concepts” HAND and ARM or for FOOT and LEG: do their speakers have only one concept in each of these cases (Brown 1976: 407, 415, 2005; Koch 2001a: 1156)?

This kind of uncertainty is not at all trivial, but concerns a central issue of lexical-onomasiological research. What is at stake here is not the unproblematic variation of the taxonomic fine-grainedness in different languages (as described above for LOCATION), but the variable linguistic treatment of strongly contiguous elements in a given experiential frame. In our semantic space, if need be, we should acknowledge that many languages have one unitary construction to express what has previously been labeled as EXISTENCE and RHEMATIC LOCATION. So we would have to accept that for languages of this very widespread type the situation cannot be described as in Figure 7, i.e., as a polysemy between two separate, but strongly contiguous concepts EXISTENCE and RHEMATIC LOCATION. We would therefore rather choose a representation as in Figure 9 for this language type: a unitary lexicalization/constructionalization of a global concept, which we may provisionally call “EXISTENTIAL LOCATION”. The choice between the polysemy solution and the global solution is one for further empirical investigation.

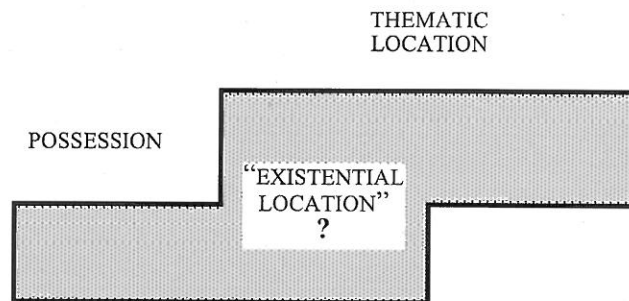


Figure 9. EXISTENTIAL LOCATION

The NSM is of no real help here. Does the above prime EXISTENCE (glossed as THERE IS) correspond to EXISTENCE in Figure 7 or to EXISTENTIAL LOCATION in Figure 9? So at least in the domain under examination, even the NSM approach is revealed not to be able to cope with the problems of linguistic relativism at stake, firstly because its prime terms are not defined clearly enough in this realm and secondly because its prime categories may not be flexible enough to account for (hypothetical) interlingual variation.

8.2.3. *Semantic space and constructional typology.* We have seen that the concepts LOCATION, EXISTENCE and POSSESSION are intertwined by multiple links of constructional polysemy and inheritance. It seems reasonable to speak of a cohering “semantic space”. Yet this does not justify the hypothesis of a unitary underlying structure, as has been suggested in several localist approaches.<sup>33</sup> On the contrary, the diverging constructional links (Figures 6 and 7) and the differences in conceptual organization (Figures 4, 5, 8, and 9) between the sample languages rather point towards a typological approach, which acknowledges linguistic diversity, while making cautious generalizations where cross-linguistic parallels appear.

Examining, step by step, pairs of concepts belonging to our semantic space, we were able to detect recurrent crosslinguistic patterns of polysemy and inheritance, especially POSSESSION-EXISTENCE (7.1), and (RHEMATIC) LOCATION-EXISTENCE (7.2). By checking the conceptual range of the constructions at hand in the different languages, we discovered an important difference in conceptual organization, namely generic LOCATION (6.1) vs. THEMATIC/RHEMATIC split within LOCATION (6.2–6.3).

For the domain under consideration, the notion of “construction” (in the sense of Construction Grammar) was revealed to be an excellent instrument for the analysis of typological patterns that are defined not only by lexical (‘substantive’), but also by grammatical (‘schematic’) information. The analytic level of constructional patterns, instead of mere lexical patterns, enables us to establish more abstract typological generalizations by bridging nonrelevant formal differences. Without this device it would not have been possible to integrate languages with (partial) zero copula, such as Gbaya, Maltese, Russian, and Samba Daka, or a language with locatives within verbal predicates, such as Zulu.

On the theoretical level of Construction Grammar, we had to systematize the relationship between formal and semantic relations involved in inheritance links (4.2). When applying this model to our semantic space, it turned out that we had to distinguish mainly between subpart links and polysemy links. Whereas the subpart links covered different semantic relations, the polysemy relations were all based on contiguity (i.e., metonymic). Among other things, this is an answer to question (ii) that I formulated in Section 2: What does the

term *adjacency* mean, which appears in the traditional literature on the subject? In our case — this might be different elsewhere — the adjacencies correspond to different formal and semantic inheritance links (which we represent only imperfectly by spatial adjacencies in the figures).

Since in our domain constructions are interwoven with the (verbal) lexicon, this inquiry is also a contribution to the question of polysemy vs. semantic generality in lexical typology (Koptjevskaja-Tamm 2008: 8–11). The cases of metonymy-based “joint lexicalization” (and, consequently, of “joint constructionalization”) that we found in our material are likely to be cases of polysemy (one problematic issue, however, has been discussed in 8.2.2). In contrast to this, what I called “difference in conceptual organization” above, is a problem of semantic generality: which taxonomic level do different languages choose when categorizing extra-linguistic reality — a more abstract one (e.g., generic LOCATION) or a more specific one (e.g., THEMATIC VS. RHEMATIC LOCATION)? These are, once more, the two fundamental hierarchical dimensions guiding lexical-typological investigation (Koch 2001a: 1144–1156): the contiguity-based (“engynomic”) and the taxonomic dimension.

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## Appendix A. Abbreviations

DO	direct object
EE	existing entity
IO	indirect object
L <sup>ED</sup>	LOCATED
LOCA	locational adverbial
L <sup>US</sup>	LOCUS
N	noun
NP	noun phrase
NSM	Natural Semantic Metalanguage
P <sup>EE</sup>	POSSESSEE
P <sup>OR</sup>	POSSESSOR
RESTR	restrictive paradigm (in Somali: cf. Note 8)
S	subject
S <sup>o</sup>	dummy subject
T	topic
V	verb

Other abbreviations are in accordance with the *Leipzig Glossing Rules* for interlinear glosses [<http://www.eva.mpg.de/lingua/pdf/LGR08.02.05.pdf>]

## Appendix B. Language sample

Language	Abbreviations	Linguistic classification (according to <i>Ethnologue</i> *)
	Ethnologue language code	
Beja/ Bedawiyet	bej	Afro-Asiatic, Cushitic, North
Brazilian Portuguese	por	Indo-European, Italic, Romance, Italo-Western, Western, Gallo-Iberian, Ibero-Romance, West Iberian, Portuguese-Galician (dialect: Brazilian Portuguese)
Danish	dan	Indo-European, Germanic, North, East Scandinavian, Danish-Swedish, Danish-Riksmal, Danish
English	eng	Indo-European, Germanic, West, English
Estonian	est	Uralic, Finnic
French	fra	Indo-European, Italic, Romance, Italo-Western, Western, Gallo-Iberian, Gallo-Romance, Gallo-Rhaetian, Oïl, French
Gbaya, dialect Bodoë	gya	Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Gbaya-Manza-Ngbaka, Northwest (dialect: Bodoë)
(Standard) German	deu	Indo-European, Germanic, West, High German, German, Middle German, East Middle German
Italian	ita	Indo-European, Italic, Romance, Italo-Western, Italo-Dalmatian
Latin	lat	Indo-European, Italic, Latino-Faliscan
Maltese	mlt	Afro-Asiatic, Semitic, Central, South, Arabic
Mandarin	cmn	Sino-Tibetan, Chinese
Russian	rus	Indo-European, Slavic, East
Sango	sag	Creole, Ngbandi based (Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Ngbandi)
Somali	som	Afro-Asiatic, Cushitic, East, Somali
Spanish	spa	Indo-European, Italic, Romance, Italo-Western, Western, Gallo-Iberian, Ibero-Romance, West Iberian, Castilian

Samba Daka, dialect Nnakenyare	ccg	Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Northern, Dakoid (dialect: Nnakenyare)
Wolof	wol	Niger-Congo, Atlantic-Congo, Atlantic, Northern, Senegambian, Fula-Wolof, Wolof
Zulu	zul	Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, S, Nguni

\* *Ethnologue: Languages of the World. An Encyclopedic Reference Work Cataloging all of the World's 6,909 Known Living Languages* [<http://www.ethnologue.com/web.asp>].

## Notes

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1. Abbreviations in interlinear glosses according to the *Leipzig Glossing Rules* [<http://www.eva.mpg.de/lingua/pdf/LGR08.02.05.pdf>]. For other abbreviations see Appendix A.
  2. Throughout this paper the term 'lexicalize' (and, hence, 'lexicalization') is not used in the current diachronic sense 'adopt into the lexicon, make lexical, etc.' (e.g., Brinton and Traugott 2005: 20–21), but in a — not unusual — synchronic sense, such as it appears in part of the relevant literature (Bickerton 1981; Wilson 1983, *passim*; see also Lyons 1968: 352, 369): "structuring and expressing conceptual material by lexical means."
  3. For more fine-grained semantic distinctions: Koch 2006: 12 Note 12.
  4. Cf. Hagège (1982: 48): "[...] il arrive souvent qu'une même langue ait plusieurs expressions différentes [sc. de la possession] selon que la thématization [...] s'applique au possesseur ou au possédé [...]". Cf. also Feuillet 2006: 197.
  5. Cf., for instance: Heidolph et al. 1981: 702–764; Hagège 1982: 52–54; Halliday 1985; Oesterreicher 1991: 353–357; see also the discussion in Hetland and Molnár 2001: 618–620; Feuillet 2006: 597–608.
  6. In contrast, the alternation between the two types of possessive sentences do not correspond to a regular word order alternation (Clark 1978: 95). With respect to word order, then, this pattern of alternation behaves differently from the alternation of locative sentences (1.2).
  7. In fact generic EXISTENCE constructions, as in (17), often designate UNBOUNDED EXISTENCE (i.e., EXISTENCE all over the universe or the world in which we live), but they may also designate BOUNDED EXISTENCE with an implicitly or contextually given local (and/or temporal) restriction.
  8. Differently from *yaallaa* (27), the shortened form *yaalla* with a high pitch on the final vowel belongs to the "restrictive paradigm" that is used, for example, after a focussed S (23).
  9. Clark does not distinguish, as we do, true EXISTENCE and R-LOCATION (i.e., RHEMATIC LOCATION, as we will call it later on).
  10. Note that Lyons (1967) distinguishes two types of "locatives" ((a) *The book is on the table* and (b) *There is a book on the table*) and clearly differentiates type (b) from the 'existential' *There are lions (in Africa)*. Cf. Section 8.2.2.
  11. All the Examples (14), (16), (17), (24), (25), and (29) contain, in fact, a rhematic EXISTING ENTITY and are therefore cases of what should be called, more accurately, RHEMATIC EXISTENCE.



The contrasting type THEMATIC EXISTENCE is represented, for instance, by Latin *sum* 'I am = I exist' in Descartes' famous statement *Cogito ergo sum*, where the EXISTING ENTITY is clearly thematic. Since the latter subtype of EXISTENCE is rather marginal (it is more natural to stress the EXISTING ENTITY than the existence itself), we shall ignore it here. EXISTENCE in Figures 4–8 thus loosely stands for RHEMATIC EXISTENCE.

12. In some cases particular adjustments had to be made in order to avoid complications that were irrelevant to the problem under examination. In some cases the equivalents were not available.
13. The data from the following languages were directly accessible to the author: English, French, German, Italian, Latin, Mandarin, and Spanish. The data from the other sample languages were elicited by way of a written questionnaire containing the five test sentences (S<sub>1</sub>) through (S<sub>5</sub>). Thanks to my informants at LLACAN in Villejuif, near Paris: Mohamed Ismail Abdirachid, Giorgio Banti, and Maki Houmedgaba (Somali), Raymond Boyd (Samba Daka), El Hadji Dieye (Wolof), Marcel Diki-Kidiri (Sango), Michel Lafon (Zulu), Paulette Roulon-Doko (Gbaya), Martine Vanhove (Beja, Maltese), as well as to all my other informants: Vitoria Gondim-Jacoby, Tübingen (Brazilian Portuguese), Pernille Hjorth, Tübingen (Danish), Richard Müller-Schmitt, Ludwigsburg (Russian), Jane Oispuu, Brussels (Estonian).
14. I adapt Goldberg's notation for this construction (Subj V Obj Obj2) to mine.
15. Note that Goldberg (1995) is much more interested in fully schematic argument structure constructions where the verbal item is schematic, too. But constructions containing substantive verbs are taken into account as well (in the context of the so-called "instance links": see Goldberg 1995: 79–81).
16. For English contrast (17) EXISTENCE/*there is* with (7) POSSESSION/*have*. — For Somali compare (24) and (25) EXISTENCE/*jiri* with the following possessive sentence: *wiilkii buug buu haysta* = *wiil-kii buug baa-uu haysta* (boy-DEF book FOC-3SG.M have-3SG.M.PRS) 'The boy has a book'. Despite differences in detail of the linguistic material the same insight emerges from Example (2), given in Stassen 2009: 210, based on Serzisko 1984: 179. At any rate Somali has two different verbal items and constructions for EXISTENCE and POSSESSION.
17. We disregard onomatopœia in this context and cases of sound symbolism in general, where the form is motivated by the concept expressed. For a more comprehensive account of problems of motivation, iconicity, etc. see Ungerer 2002.
18. Not all the types and subtypes that we shall mention are present in all the classifications cited here. The "adjectival" type II is identified only in Hagège 1982: 48, 2003: 89; Hengeveld 1992: 165–166; Feuillet 2006: 188. For diachronic reasons Stassen (2001: 957) reduces it to types III and V. The "genitive" type IV.a figures separately in Hagège 1982: 48; Hengeveld 1992: 164; Feuillet 2006: 187–188. Stassen (2001: 956; 2009: 107–136) adduces synchronic and diachronic arguments preventing him from assuming a separate category of this kind.
19. In Heine's (1997: 75) 100-language sample, type I corresponds to only 13.6%, whereas in Stassen's (2005a) 240-language sample it represents not less than 26.25%, i.e., a little bit more than a quarter.
20. For Latin we have to distinguish two stages in the expression of (simple RHEMATIC) POSSESSION. "Latin stage 1" corresponds to the construction *puerō liber est* (72), Latin stage 2 to *puer librum habet*, which is the structural antecedent of the French *avoir* construction (106). There can be no doubt that (72) is the older construction. In fact both constructions coexist until the classical period, but already in archaic Latin (Plautus) the stage 2 construction represented more than 60 percent of the occurrences of simple POSSESSION; in classical Latin the number of stage 1 occurrences decreases further (Nuti 2005: 147–149).
21. Other Russian constructions, such as [*byt'*] + Dative (type IV.c) and *imet'* (type I) are more restricted and/or marginal (Clancy 2000: 154–162; Weiss and Raxilina 2002: 177–180).

22. Another interesting problem we choose not to address here concerns the differentiation (or not) of ‘posture types’, such as LIE, SIT, STAND, HANG, etc. (see 2 Stassen 1997: 60–61; Newman 2002; Ameka and Levinson 2007; for diachronic aspects: Dixon 2002: 21–23). Indeed some generic LOCATION languages listed in Table 5 display posture verbs (e.g., Danish, German, also Russian; see Koch 2006: Notes 10, 17, 19). However this issue is not directly relevant to our current concern, because within the category LOCATION the posture verbs are in alternation with the copula, which is always possible, though not necessarily the most frequently used. What we are interested in here is not the posture differentiation within locational constructions, but the external links (or not) between locational and other constructions. For the languages sensitive to posture differentiation Table 7 contains the most neutral, positionally unspecific verb as well as the indication ‘or posture verb’. — It must be left for further research to find out whether posture differentiation is a peculiarity of generic LOCATION languages or not.
23. As shown in (88) and (89), zero copula is regular in the present, but optional in the past, where we would have *il-ktieb [kien] fuq il-mejda* for THEMATIC LOCATION and *[kien] hemm ktieb fuq il-mejda* for RHOMATIC LOCATION. A constructional variant of (88) contains the participle of a posture verb *qieghed* ‘sitting’: *il-ktieb qieghed fuq il-mejda*. Cf. above Note 22.
24. Variant 2, without any link to POSSESSION, is based on the conjugated local adverb *khona* with S-agreement triggered by the EXISTING-ENTITY NP; see the equivalent to (93): *ba-khona abantu aba-hlupheka-yo* (3SG.CLASS17-there CLASS2-person CLASS2-unhappy\_be-REL).
25. In our sample there are quite interesting cases of diachronic evidence, which, by definition, do not show up in Table 7: e.g., Sp. *Hay mucha gente infeliz* ‘There are many unhappy people’, where the existential verb *haber* ultimately goes back to a possessive verb (Latin *habere*). As a simple possession verb *haber* has been definitely replaced by *tener*, so that in modern Spanish POSSESSION and EXISTENCE are completely distinct.
26. As for the controversial issue of diachronic directionality in this case, see Heine and Kuteva 2002: 127–128, 242; from a more general point of view: Heine 1997: 94–96.
27. For a cognitive understanding of metonymy (and in part also of contiguity) see Taylor 1995: 90, 125–126; Geeraerts 1997: 96; Radden and Kövecses 1999: 21; Koch 1999b: 146–149, 2001b: 202–203, 2012; Feyaerts 2000: 63–65; Ruiz de Mendoza Ibáñez 2000, 113–115; Panther and Thornburg 2007. For the fundamental difference between metonymy and metaphor, see Croft 1993. For the referential characteristics of metonymy: Geeraerts 1997: 68–75; Koch 1999b: 149–151, 2004: 23–25, 2012.
28. The constructions (102) and (103) for BOUNDED EXISTENCE are equally common, whereas for generic EXISTENCE (104) is more common than (105). For more details see Koch 2006: 19–20, Notes 18 and 20.
29. The seemingly slight difference between Spanish and Italian in Table 10 (no vs. partial transparency between the THEMATIC and RHOMATIC LOCATION constructions) should not be underestimated, because in detail the constructions involved are not only diachronically, but also synchronically very different, as can be seen in Table 8.
30. Zulu (variant 1) displays the familiar inheritance chain POSSESSION → EXISTENCE → RHOMATIC LOCATION (see Section 7.2, ii.). In variant 2 this chain is “interrupted” by a different existential construction based on the local adverb *khona* (see above, Note 24) — perhaps a more recent innovation?
31. Things are different in non-prototypical cases, such as TEMPORARY POSSESSION → (TEMPORARY) LOCATION: e.g., English *the boat has too many passengers* (as to the concept of POSSESSION, see Section 2.1).
32. Besides SPECIFICATION (e.g., *John is a teacher*), which we have not considered here.
33. E.g., Lyons 1967; Clark 1978; Kawaguchi 1991; Freeze 1992, 2001; see the critical survey in Heine 1997: 214–222; also Seiler 1983: 56–57.

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