A1 Types of nouns and determination across languages

1 General information

1.1 Applicants

LÖBNER, Prof. Dr. Sebastian, 4 April 1949

VAN VALIN, Prof. Dr. Robert D., Jr., 1 February 1952

1.2 Topic

Types of nouns and determination across languages

1.3 Scientific discipline and field of work

General linguistics, language typology, morphology, semantics

1.4 Scheduled total duration

Six years

1.5 Application period

Three years

1.6 Summary

The project investigates the cross-linguistic morphological and syntactic repercussions of two conceptual dimensions, which cross-classify nouns into sortal concepts (SC), relational concepts (RC), individual concepts (IC), and functional concepts (FC): the latter two refer inherently unambiguously, unlike the former two; SCs and ICs do not involve an additional argument to be specified, whereas owing to their relationality RCs and FCs do. The major object of research is the typological variation in the realization of the arguments of RCs and FCs, as well as the consequences of the inherent uniqueness of ICs and FCs.

A second perspective results from the intimate relation between these types of nouns and corresponding types of determination: indefinite, definite and possessive determination. For example, definite determination produces NPs that refer uniquely, indefinite determination yields NPs of non-unique reference, and possessive determination leads to NPs referring in relation to an additional argument. The project investigates the grammar and compositionality of the combinations of nouns of a certain concept type with determinations of a certain type from a cross-linguistic point of view.

2   State of the art, preliminary work

2.0 Problem to be addressed

2.0.1 Four types of nouns

The project investigates the cross-linguistic morphological and syntactic repercussions of the distinction of nouns according to concept type: sortal concepts (SC), relational concepts (RC), individual concepts (IC), and functional concepts (FC). The four types differ along two independent semantic parameters: relationality and inherent uniqueness. These characteristics are immediately relevant for the manner in which the respective nouns are used:

-   IC and FC nouns are inherently unique; in their unmarked use they are used with definite reference and in the singular.

-   SC and RC nouns do not determine semantically the number of their potential referents in a given context: they may apply to zero, one or multiple instances; they are therefore open for singular and plural use. The unmarked use is indefinite.

-   RC and FC nouns are inherently relational. They require contextualization of their possessor argument for determining their referents in a given context. While the specification of a possessor is not syntactically obligatory, RC and FC nouns do occur significantly more frequently with possessor constructions of various sorts.

Table 1 displays the four types and the respective unmarked types of determination. The non-relational types SC and IC are logically 1-place predicators, while RC and FC are 2-place. There are also higher-place relational and functional nouns, but these are comparatively rare. The present study is restricted to the most frequent four basic types.

	not inherently unique [–D]	inherently unique [+D]
1-place [–P]	**SORTAL – SC** *table book adjective water* ↰definite determiner ✓**indefinite** ✓dem. ✓quant. ✓plural ↰possessive	**INDIVIDUAL – IC** *moon weather time Maria* ✓singular **definite determiner** ↰indefinite ↰demonstr. ↰quant. ↰plural ↰possessive
2-place [+P]	**RELATIONAL – RC** *sister blood leg attribute* ↰definite determiner ✓**indefinite** ✓dem. ✓quant. ✓plural ✓**possessive**, possessor must be specified	**FUNCTIONAL – FC** *father head age subject* (gramm.) ✓singular **definite determiner** ↰indef. ↰demonstr. ↰quant. ↰plural ✓**possessive**, possessor must be specified

Table 1: correlation of concept types and determination

In the table ✓ marks a type of determination, which is in accordance with the type of the noun while ↰ marks a type of determination at variance with the noun type. This does not mean that these combinations are ungrammatical, rather they are accompanied or made possible by a type shift of the noun that renders it an appropriate type. Among the determinations mentioned, plural, quantification, indefiniteness, and contrastive demonstrative all require at least the possibility of an open number of potential referents in the given context. Therefore, these types of determination call for a sortal or relational head noun ([–D]). Only definite singular use is in accordance with the inherent uniqueness of SC and FC nouns ([+D]). For use with the other determinations mentioned, a type shift is required that suspends the property of inherent uniqueness. Conversely, [–D] nouns require a particular context for definite singular use such as the prior introduction of the unique referent. Löbner (1985) argued that the use of the definite article inevitably renders a contextually construed IC reading of the noun and hence a type shift, if the noun is not [+D]. As for the [±P] distinction, RC and FC nouns can only be used for reference, if the possessor argument is specified in the given context. They are therefore frequently used with possessive constructions of various kinds. If they lack a possessor specification, they are in need of a special context that provides it. Conversely, SC and IC nouns require special context for possessive use.

2.0.2 Types of determination

As a central hypothesis we assume that the function of the major types of determination – definite, indefinite and possessive – is essentially the indication of the type of concept of the NP in this instance of use.[1] For example, it is assumed (Löbner 1985) that definite determination indicates a [+D] type: one-place nouns are to be construed as individual concepts, two-place nouns as functional concepts. Indefinite determination, e.g. by an indefinite article, indi-

---

[1] This function may be combined with other, more specific operators, as is the case with numerals and quantifiers.

	non unique [–D]	unique [+D]
absolute [–P]	**INDEFINITE** indefinite article *a book* bare plural *books* bare singular *water* determination involving potentially more or less than one case negative *no book(s)* plural *books* numerals *two books* quantifiers *each book* demonstratives *this book*	**DEFINITE** definite article *the book*

relative [+P]	**POSSESSIVE**
	
	„right" possessive constructions
	
	            book of John's
	            sister of John
		POSSESSIVE + DEFINITE
		
		„left" possessive constructions
		
		            my book
		            John's book

Table 2: Types of determination

cates [–D] types. Possessive determination, as expressed using right possessive constructions in English (N *of* NP or N *of* NP*'s*), indicates [+P] use of the noun; the Det position of the head noun can be used to fix the value of [D] by definite or indefinite determination. In English this possibility is not available with left possessive constructions having a possessor specification in determiner position; these indicate definite possessive use, i.e. [+P][+D] use of the noun, if the noun is used referentially.[2] Thus a table analogous to Table 1 can be set up for types of determination.

2.0.3 Type of determination and lexical type of the noun

In principle each type of noun can be used with each type of determination. However, some combinations will be unmarked and others marked. For example, indefinite determination is unmarked with [–D] noun types, i.e. sortal and relational nouns, and possessive determination is unmarked with relational or functional nouns. On the other hand, definite determination is marked for [–D] nouns, e.g. sortal nouns.

Project A1 is based on the following hypotheses :

H1   It is possible to determine the lexical type of a noun by investigating the preferred types of determination used with the noun.

This problem is dealt with in Project A5; see § 2.0 of the project proposal for a more elaborate argumentation regarding this point.

---

2   In predicative use, determination is not [+D]: *this is my cousin* has the reading "this is a cousin of mine".

H2   From a functional point of view type-matching determination will be marked less prominently than non-matching determination, since it is semantically redundant.

Cross-linguistically, we therefore expect **splits** with regard to the determination in unmarked and marked cases: There will be languages, in which only the marked cases receive explicit determination. In other languages, the unmarked cases will receive less prominent expression of determination than the marked ones.

H3   From a cognitive point of view, the application of non-matching determination coerces a type shift of the noun.

We are therefore searching for morphosyntactic evidence of these type shifts. If these type shifts are real, then there must be languages that explicitly indicate them. Assumptions H2 and H3 are interrelated: overt morphosyntactic indication of a type shift would also represent a more prominent marking of the determination type.

A few examples may illustrate the point. In English left possessive constructions are used indiscriminately for [–P] and [+P] types of nouns:

(1)   a.   *My orange was very sour.*   [–D][–P] → [+D][+P] → [+D][–P]

      b.   *My tongue is burning.*   [+D][+P] → [+D][–P]

The combination of the sortal noun *orange* with a possessive pronoun in (1a) shifts the noun into a functional concept "the orange of" (note that the construction is only used definitely); in a second step, the specification of the possessor (as the speaker) saturates the possessor argument and reduces the FC "the orange of" to the IC "the orange of the speaker".

In (1b), the first of these two shifts is missing because the noun *tongue*, a unique body-part term, is lexically an FC; the shift involved here is the same as the second one in (1a), that is, the saturation of the possessor argument. Compared to English Lakhota is much more transparent:

(2)   Lakhota

      a.   *ni-thá-wowapi   ki*   [–D][–P] → [–D][+P] → [–D][–P] → [+D][–P]
           2SG-POSS-book   DET
           'your book'

      b.   *ni-nági   ki*   [+D][+P] → [+D][–P]
           2SG-spirit   DET
           'your spirit'

In (2a), the sortal noun *wowapi* is shifted to a relational noun by the possessive marker *thá*; specification of the possessor by the 2nd person prefix *ni* constitutes a second type shift from relational to sortal (the relativity of *thá-wowapi* is resolved by argument insertion); finally *ki* marks a third shift from sortal to individual; to achieve this shift the concept expressed by *ni-thá-wowapi* ("book of addressee") has to be enriched by contextual information that renders a unique referent.

(2b) involves the [+D][+P] noun *nági*; prefixation of *ni* reduces the concept to a one-place concept [+D][–P]. In this case, the definiteness marking *ki* is semantically redundant and does not indicate a type shift. We would expect that *ni-nági* is only exceptionally used with a determiner other than *ki*.

Conversely, derelativization (or 'absolutivization') overtly changes inherently possessed nouns into 'absolute' nouns (that is, without a p-argument). A case in question is the derelative suffix *-b'aj* of Mam (England 1983: 69).

(3) Mam (Mayan)

a. *t-qan*   b. *qam-b'aj*   [+P] $\rightarrow$ [–P]
    3SG-foot   foot-DERELATIVE
    'his/her foot'   '(a) foot'

Simple data concerning [D] shifts are provided by cases of semantic definiteness[3] without definiteness marking, as opposed to cases of pragmatic definites with overt definiteness marking:

(4) a. *the orange*   [–D][–P] $\rightarrow$ [+D][–P]

     b. (*the) *John*   [+D][–P]

However, as is well known, the break-off point of definiteness marking in English does not coincide with the distinction between [–D] and [+D] nouns. We assume that those cases where definite [+D] nouns are marked with a definite article are redundantly marked for independent (i.e. not semantic) reasons, such as uniformity of NP phrase structure or explicit indication of number, case and gender in languages like German.

The data collected in the first project phase corroborate the three hypotheses, but exhibit significant language-specific differences with respect to the assignment of a given noun as either alienably or inherently possessed. We see, however, enough reason to hypothesize possessivization to be a type shift from [–P] to [+P], and absolutivization from [+P] to [–P]. Prior research on definiteness (starting from Löbner 1985) suggests that differences in definiteness marking (such as the distinction between weak and strong definite articles, see § 2.1) are related to the [±D] feature of the head noun. The Lakhota data in (2) raise the question of a ranking or ordering of type-shift indicators: which type shifts are indicated by affixes to the noun and which by independent determiners?

2.1 State of the art

The status of the possessor with respect to the possessum is treated from the perspective of formal semantics by Barker (1995). The most important comprehensive treatment of possession in its various dimensions is Seiler (1983). Typological surveys with special emphasis on morphological strategies are found in Koptjevskaya-Tamm (2001, 2002). Many languages display a morphosyntactic distinction between "alienable" or "separable" possession and "inalienable" or "inseparable" possession, respectively. The terminology reflects the intuition (made more precise, among others, by Seiler 1983, Nichols 1988, and Heine 1997) that inalienability covers inherent conceptual affiliation of the possessum to the possessor. Alienable possession, by contrast, often correlates with a more general relation between the two individuals, often brought about by a human's activity or involving the availability of the possessum; in these cases the meaning of a PN (possessum noun) does not provide a possessor ar-

---

3   Cf. Löbner 1985: semantic definiteness involves [+D] nouns, pragmatic definiteness [–D] nouns.

gument. This gives rise to our hypothesis that possessive constructions involving a sortal, or more generally [–P] PN belong to the alienable type, whereas those involving a [+P] PN belong to the inalienable type. Language-specific manifestations are described in the contributions to Chappell & McGregor (1996). Stiebels (2006) highlights the articulatedness of linking systems for arguments of nouns in languages with rich inflectional morphology. The major subtypes of predicative possession (*have*-possessive, locative-possessive, topic possessive, conjunctional possessive, and genitive possessive) are reviewed in Stassen (2001) (see also Baron et al. 2001).

Lyons (1999) is *the* source of cross-linguistic aspects of the realization of definiteness to date. He addresses the question of how common it is at all for the world's languages to employ definiteness markers with nouns. A brief synopsis of the two major semantic approaches to definiteness, uniqueness and familiarity (the latter notion is elaborated upon by Heim 1983), is offered by Abbott (2006); the proposal by von Heusinger (1997), which relies on the notion of salience, can be regarded as an in-between approach. We base ourselves on Löbner (1985), which elaborates on uniqueness and develops the conceptual noun types SC, RC, IC and FC. As a point of reference for the difference in meaning between strong and weak articles in Germanic, there is a series of works by Studler (2004, among others) on Alemannic, which resembles Dutch in essential regards. In her account Studler employs the notion of uniqueness for the weak forms, but relies on the concept of anaphoricity in order to explain the strong forms. Many languages, including non-Germanic ones, correlate the occurrence of a possessor (in particular in left possessive constructions) and a definite reading of the noun phrase, often to the exclusion of a definite article; Haspelmath (1999) proposes an account based on frequency and economy.

2.2 Preliminary work/progress report

Sebastian Löbner has been exploring functional concepts since his monograph (1979), in which these are identified in the complements of intensional verbs in German. Subsequently, the correlations of the various types of FCs with definiteness have been explored. According to Löbner (1985) all definite descriptions – that is, noun phrases with the definite article, with demonstrative pronouns, with left possessor specifications, as well as proper names or personal pronouns – are construed as functional concepts.[4] In other words, any NP that is used in this way (for example, *the U.N. General Secretary, his mother*) can be assigned exactly one referent. A crucial distinction is the one mentioned between semantic and pragmatic definiteness, where the former refers to reference unambiguous for semantic (i.e. context-independent) reasons, while the latter denotes uses of NPs that refer unambiguously only due to the given context of utterance, e.g. deictic or anaphoric use. This distinction is used to motivate otherwise unexpected uses or non-uses of definite articles: configurational uses of sortal nouns as FCs are signaled by the absence of the article in *go to school, at court, be in hospital/prison*; or in German, by fusion of the article with prepositions as in *zur Schule gehen, im Krankenhaus/Gefängnis sein*. Likewise, the phonological contrast of weak and strong definite

---

[4]   In Löbner (2000:251f) a semantic criterion of definiteness is proposed which is independent of morphosyntactic markings of definiteness.

articles in German dialects of the Rhine area and West Frisian Fering is shown to reflect semantic vs. pragmatic definiteness, providing the background for the analysis of further article systems in Germanic, such as the combination of definite suffixes on the noun with syntactically free articles in Mainland Scandinavian.

Löbner (1998) deals with the phenomenon of definite associative anaphora (e.g. *…a book…. ...the author…*), where the context provides an anchor for identifying the referent of a definite NP. It is argued that these cases can be uniformly analyzed as involving an FC noun, the possessor of which is given anaphorically. This study led to further generalizations about the referential properties of FC nouns on the one hand and about the intimate relationship of FC nouns to Barsalou frames on the other.

Van Valin has been working on Lakhota since 1975; he worked extensively with native speakers from 1975 until 1990. He wrote his dissertation on the language (Van Valin 1977), has published several articles on it (Van Valin 1985, 1987, 2000), and has used data from the language in many of his theoretical publications (Van Valin & LaPolla 1997, Van Valin 2005). He has done considerable work on phenomena tied to the rich article system of the language, as well as relative clause phenomena and information structure.

Albert Ortmann investigated possessor constructions from a semantic and typological perspective, as well as noun modifiers, which in many languages are similar to possessor arguments in that they have to be licensed by morphological means, either on the modified noun or on the attributive modifier itself. Extensive analysis of morphological operations expressing semantic type shifts are offered in Ortmann (2002a,c). Likewise, in many languages underlyingly sortal nouns must undergo a morphologically overt argument structure shift in order to take a possessor, whereas relational nouns are overtly reduced into one-place nouns (Ortmann in prep. a). A case-study involving three Mayan languages is provided in Ortmann & Handschuh (2004). Ortmann (2002b) is concerned with agreement splits in the framework of Optimality Theory; among others, Hungarian possessor agreement is analyzed. The methodology of these works, in combination with the approach to *plurality splits* developed in Ortmann (2004), can be applied to asymmetries between concept types, such as alienability splits.

For a report on the work done in the project during the first period see the report attached to this proposal.

3   Goals and work schedule

3.1 Goals

The project will continue the cross-linguistic investigation of the type distinction among nouns. What are the ways in which the type distinctions matter in different languages? Which phenomena in the realm of noun uses and determination are related to the type distinction? Is there cross-linguistic evidence for the type shifts assumed? Due to the two dimensions of type distinction – relationality and inherent uniqueness –, our research will continue to focus on the typology of possessive constructions and on definiteness.

In formal semantics it is assumed that all nouns also involve a time/world argument representing the index the actual reference of the noun in a given context of utterance depends on. This argument is more vital for ICs and FCs since they often depend on the context for the

determination of their referent. (In this sense ICs and FCs are "more indexical" than SCs and RCs, note that most deictic expressions categorize as IC.). In the following, the time/world argument will be called "s-argument" (for: situational argument) as opposed to the "p-argument" (possessor argument) of RCs and FCs.

3.1.1 Relationality of RC and FC

Our investigations will center on the typology of the realization of the p-arguments of FCs, which are typically realized by possessive constructions, and as such subject to considerable variation. Typologically, the designated grammatical devices are case (usually genitive, dative, or ergative), possessor agreement, and adjacency between possessor and head noun (often referred to as juxtaposition, 'construct state'). Since [+P] nouns have an underlying p-argument by definition, we have to check whether the p-argument of RC and FC is generally realized in an inalienable construction in languages with an alienability distinction.

As far as we can tell from our studies, natural languages do not seem to reflect the relational-functional-distinction with respect to the realization of the p-argument as clearly as the sortal-relational-distinction.(This is what is to be expected, in view of the fact that relational and functional nouns both differ from the other types by the [+P] feature.) Instead, languages may differentiate within the same classes of nouns, e.g. between body parts terms and kinship terms regardless of the RC/FC distinction (see various contributions to Chappell & McGregor 1996). The picture that would seem to arise is that languages also refer to lexical fields in putting the threshold between the alienable and the inalienable construction. Within one construction, there may be more subtle distinctions that are responsible for sub-splits. For example, **Lakhota** distinguishes kinship terms from other inalienably possessed nouns by adding the suffix *-ku* to them. Furthermore, body part terms are divided according to whether or not they are subject to control: those that are not take *ma-*, rather than the form *mi-* elsewhere as the marker of 1st person possession; thus *mahu'hu* 'my bone' vs. *mii'sto* 'my arm' (Boas & Deloria 1941: 128f).

An intriguing challenge in this vein is a split in **Hungarian** cursorily mentioned by Moravcsik (2003): for a larger group of consonant-final nouns, "the */j/*-ful and */j/*-less variants of the 3rd person singular possessor marker are often synonymous but sometimes they express alienable versus inalienable possession." An example is *ablak-a* vs. *ablak-ja*, window-3.sg.poss 'his/her/its window', in the former case literally possessed (by a person), in the latter belonging to a house or a door for example. Note that it is the inalienable rather than the alienable use of a noun which is marked (in contrast to what is illustrated for Lakhota in (2). In other words, this would-be type shift indicates that the noun is used as an RC rather than as its underlying type SC. Obviously, however, such an analysis is too simplistic: (i) even the alienably possessed use must, according to all our assumptions, be analyzed as involving a shift to an RC; (ii) the *j* is invariably present with lexical RCs and FCs such as *apja* 'his/her father', in contexts of a 3rd person possessor. Our hypothesis is that we are dealing with the same kind of polysemy as with the definite article in English and Standard German, which occurs redundantly in cases of semantic definiteness. To this extent, the marker at issue exhibits, on the one hand, properties of possessive connectives with purely grammatical function (in the sense of Ortmann in prep. a) On the other hand, it indicates that the noun referent is conceptualized as an inherently, rather than circumstantially, possessed variant. This alterna-

tion, then, lends itself to being an object of study of the interaction of typologically relevant morphological and semantic distinctions, and will be dealt with in combination with another alienability distinction of Hungarian that has as yet not been accounted for, namely that of the occurrence of pronominal possessors in addition to possessor agreement.

In addition, the data seem to suggest that apart from alienability splits, there are further grammatical asymmetries between SCs, RCs and FCs. Accordingly, such areas as plural marking and differential object marking lend themselves for studies on their sensitivity to concept types.

Beside the grammatical devices mentioned above, there are also oblique strategies of realizing the p-argument, as in German *der Name für* 'the name for'. Other devices involve word formation, such as noun-noun compounds (German *Wohnungs-größe* 'size of a flat') and attribution by denominal adjectives (*kindlicher Organismus* 'child's organism'). Consequently, one object of investigation concerns the restrictions with respect to classes of nouns that undergo such constructions.

3.1.2 Types of determination and the inherent uniqueness of IC and FC

By no means do all languages have explicit markers of definiteness. Those languages that do, differ in the range of cases where they are applied. The overall question, then, is for which array of definite descriptions articles or equivalent markers are used. We assume the following scale; it measures the degree to which an NP depends on additional contextual information for warranting unique reference:

pragmatically definite NPs < semantically definite NPs:

lexical FCs <

lexical ICs <

proper names <

demonstratives <

3rd person personal pronouns <

2nd person personal pronouns <

1st person personal pronouns

We anticipate a decrease in the use of articles when moving from the left end of the scale to the right, and this correlates with an increase of functional redundancy.[5] Thus, articles virtually never occur with personal pronouns; however, they are attested for non-third person pronouns in Tzutujil Maya (Dayley 1985: 255). Demonstratives (Hungarian) and proper names (Modern Greek, colloquial German) are found with articles in at least a few languages. On the other extreme, in all languages with definiteness marking definiteness is marked throughout in contexts of pragmatic definiteness, such as anaphoricity in which the functional load of the article is highest.

---

[5]   Functional redundancy is meant here with respect to semantic and pragmatic aspects of the use of articles. Independently definiteness markings may fulfil other functions.

As regards the intermediate section of the scale, one encounters two kinds of splits:

(i)   Pragmatic definiteness is marked by the definite article, whereas semantic definiteness is unmarked; an example is Old Georgian, as indicated below. In written German, as quantitative investigations of the member project A5 have shown, genuine lexical "count" FCs are often found as bare nouns in the singular. This is corroborated by English examples such as *the items differ in shape, colour, and size*. Diachronically, the use of the article seems to have spread from pragmatic to semantic definiteness, eventually also covering those areas where it is of little functional load, as is the case with proper names for persons in colloquial German. Our aim is to determine language-specific cut-off points on the scale, thereby trying to establish a universal implicative scale like the tentative scale given above. Taking into account further subclasses of ICs, such as the terms for numbers, months, and seasons may yield a still finer-graded picture.

(ii) Pragmatic and semantic definiteness are morphosyntactically distinguished by different article forms. **Lakhota** with its two definite articles *ki* and *k'ų* appears to be a paradigm case that calls for further study. The first, *ki*, can be used to indicate that a discourse referent is assumed by the speaker to be identifiable, and it can also be used to refer to entities in the environment of the speech event that have not been explicitly mentioned before. The second, *k'ų*, is glossed 'the aforementioned', and the NP containing it must have previously been explicitly mentioned in the discourse context, and it must be a salient entity with respect to the content of the discourse.

Equally interesting in this vein is the distinction between phonologically strong and weak definite articles, in particular West Germanic languages and dialects (among others, Dutch, Frisian, Alemannic) and Mainland Scandinavian. We have selected two systems for case studies, viz. Dutch and Swedish. **Dutch** has the weak article forms *de* (utrum gender) and *het* (neuter) in addition to the strong forms *die* and *dat*, respectively. The following text passage, taken from the novel *De Aanslag* ('The Assault') by Harry Mulisch, contains a contrastive pair which illustrates the semantic distinction nicely:

> *Aan de andere kant voelde ook hij zich onbehaaglijk met de aankondiging van die oude man in Amerika, dat ook een beperkte kernoorlog denkbaar was, en wel in Europa, waar hij dan totaal zou zijn. Dat de oude man in Rusland vervolgens had gezegd, dat daar geen sprake von kon zijn, want dat hij in alle gevallen Amerika zou vernietigen, was een hele geruststelling voor hem geweest.*
>
> 'On the other hand, he too felt uncomfortable with the announcement by the old man in America that a limited nuclear war was also conceivable, namely in Europe, where it would be a total one then. That the old man in Russia thereupon said that this was impossible, for in any case it would destroy America, had been quite a comfort to him.'

Neither of the two old men (that is, Ronald Reagan and Leonid Brezhnev) has previously been introduced in the discourse. Both are subsequently referred to by definite NPs – one with the strong and the other with the weak article. The first NP can be said to be an instance of pragmatic definiteness since it presupposes a unique referent, which can, however, only be identified by pointing to a specific context, viz. that of the nuclear superpowers at the time of the cold war. The second NP at issue (*de oude man*), by contrast, behaves as a contextually established FC (with oblique argument specification), and as such is semantically definite:

within the now established frame, *oude man* this time enjoys the status of a special FC established in the world referred to.

As for **Swedish**, Löbner's 1985 analysis of Ripuarian Franconian also seems to enable a novel account of the combination of definite suffixes on the noun with syntactically free articles (cf. *den gamla mann-en* 'the old man-DEF'). We hypothesize that the free article has an indexical meaning and is confined to pragmatic definiteness, which is corroborated by its absence in contexts of inherent uniqueness, such as *övre/nedre del-en* 'the upper/lower part', *första/sista kapitl-et* 'the first/last chapter'.

The relevance of the distinction of semantic and pragmatic definiteness is also essential for **Old Georgian**, which we have selected for a more detailed case study that makes use of a rich body of (freely available) online corpora. The forms of the Old-Georgian demonstrative pronoun *igi* were also used as definite articles, and they furthermore had the function of 3rd person pronouns. In a preparatory study carried out in cooperation with Tinatin Kiguradze (native Georgian, and proposed researcher on Project A2) we encountered numerous occurrences of undetermined nouns in definite contexts – contrary to the commonly held view that „[n]ouns without the article were indefinite, nouns with the article definite" (Fähnrich 1991: 150). In earlier Old Georgian text, the article occurs fairly systematically in contexts of pragmatic definiteness (especially anaphoricity), whereas it is hardly found in contexts of non-textual definiteness:

(5)   Old Georgian
      čika-j   igi   p'ir-sa   šealec'a da   ġvino-j   igi   daitxia.
      glass.NOM DET.NOM mouth-DAT   throw   and wine-NOM DET.NOM spill
      'She threw her the glass into the face and the wine was spilled.'   [Sus VI]

The SC nouns for glass and wine were previously introduced in the text and are accordingly marked for definiteness, whereas the FC noun *p'irsa* is not. Only in later texts is the domain of the use of articles extended so as to cover FC nouns (here *gza*) as well, as in the following example from the 9th century:

(6)   *gza-sa   mas   č'ešmarit'-sa   ertġmteeb-isa-sa*
      way-DAT   DET.DAT true-DAT   monotheism-GEN-DAT
      'the true path of monotheism'   [Luc 9]

Likewise, the marking of pragmatic definiteness is most stable when it comes to a decrease in article uses, as happened to Georgian (resulting in their entire loss in the modern language): anaphoric definiteness is, at least optionally, maintained well into the 16th century. Differentiating between concept types along a scale thus seems to prove to be fruitful for a comprehensive account of determination in this language.

Apart from articles and definiteness affixes on nouns, there are other morphological and syntactic asymmetries that are governed by definiteness, most notably differential object marking and word order variance: case marking and agreement tend to be used only with definite objects; preverbal noun phrases are interpreted as being definite in Russian for example.

The verbal conjugation of **Hungarian** exhibits a distinction between the so-called subjective and an objective series. Roughly speaking, the latter is used with transitive verbs provided the object is definite, where the following complexities call for clarification: (i) With

first or second personal pronouns the subjective rather than the objective conjugation is used (*Engem lát-sz* / **lát-od*, me see.PRES-2.SG.SBJCTV/*OBJTV, 'you see me'); this is in accordance with our expectation that means of definiteness marking are less often found on the right end of the scale. (ii) The objective conjugation is also found, if the head noun of the object is indefinite but combined with a definite possessor; this might possibly be analyzed as a definiteness effect. (iii) The objective conjugation is even used with entirely indefinite objects as long as they are contrastive (expressed by focal accent); this seems to speak for the role of salience and would encourage an analysis in terms of differential object marking, which in turn, however, could not handle the fact observed in (i). It will be worthwhile to extend the investigations to other Uralic languages that share the split in different variants, such as Vogul, Ostyak, Mordvin, and Selkup (Samoyedic). In the latter languages the objective conjugation is generally used with transitive verbs, irrespective of whether the object is definite or not.

One further possible factor for definiteness splits might be the variability of the function value of FCs in relation to the s-argument. The value of FCs such as *mother*, as well as that of body part terms (*head*, *mouth*, etc.), is independent of the s-argument: normally, an individual has invariably the same mother and the same head – not, however, the same address, or the same weight. Since intuitively the invariance of an FCs function value constitutes the prototypical case of inalienability, it is worth conceivable that some languages confine the use of articles to those FCs whose function values vary according to the value of s.

Integrating these various aspects and the results of the case studies envisaged here, as well as those on other languages whose system of determination has not yet been analyzed from a semantic perspective, provides a program of research we consider both innovative and promising.

3.1.3 Possessivity and definiteness combined

A striking phenomenon with regard to possessive determination is the frequent coincidence of definiteness with possessiveness, resulting as it were in a merger of RC and FC. For example, possessive pronouns or other left possessive constructions in English or German (but not in Italian) are interpreted as definite in referential use (*my car / my cousin has broken down*) although it has to be assumed that their meanings are only possessive, as the indefinite predicative use of the same pronouns suggests (*this is my car / my cousin*). Thus there appears to be a tendency to use possessive determination in order to produce NPs that refer not only relationally but even functionally.

The issue of using a noun either in the underlying type or as re-interpreted via a type shift ('definitivization', 'possessivization', 'absolutivization'), calls for a comprehensive account which appeals to the language-specific differences with respect to the semantic assignment of a given noun which may be either alienably or inherently possessed. We aim at developing a typology of type shifts that are marked by determination in the syntactic composition and those that are morphologically expressed on the noun itself.

3.1.4 Inventories of abstract functional nouns

Of particular interest are also differences in the lexical inventory of FCs. Due to its use as an international language of science and technology, English may be suspected to exhibit a sig-

nificant wealth of vocabulary of FCs, whereas the opposite seems to be true of **Lakhota**. While the language has kinship terms and role terms, e.g. *itáčą* 'chief, master, ruler', an initial survey of Lakhota-English dictionaries raises the possibility that this language may lack terms for abstract FCs (an exception is the apparent FC noun *caje* „name"; it is used with inalienable possessor marking). A search through Williamson (1902[1970]) and Buechel (1970) finds no entries akin to English *temperature, color, distance, size, height, relation* and *difference*. For *temperature*, for example, the Lakhota translation given is a phrase meaning 'hot or cold weather'. The term given for *height* in Williamson turns out, according to Buechel, to mean 'perpendicular'. The term for 'color', *hítokeča*, is translated as 'color of something'; this seems to be analogous to the obligatory possession of body part terms. It is not the case that the language lacks abstract nouns, e.g. *wówašte* 'goodness' from *wašté* 'good', and *wókinihą* 'honor' from *kiníhą* 'to respect, honor someone'. Ascertaining whether Lakhota has terms expressing abstract FCs will require work with native speakers. If the language turns out to have some, then their semantic and syntactic properties will be investigated; if the language turns out not to have any, then the issue will be, how are FCs expressed in a language without lexical items expressing them directly? The issue may turn out to be a fruitful base for cooperation with member project A2 on dimensional verbs.

3.2 Methods and work schedule

Relationality of RC and FC

1. Typological dimension of the p-argument: detection and analysis of the alienability and other splits determined by (uses of nouns as) SCs, RCs, and FCs, respectively. To which extent are semantic distinctions other than that of concept types responsible for the splits?

2. Sub-splits within the class of relational or functional nouns.

3. Morphosyntactic evidence for the marking of type shifts with respect to relativity.

4. Correlations between concept types and NP-external realizations of p-arguments, including verbal possession subtypes and the 'double subject' constructions of Chinese and Japanese.

5. Comparison of the syntactic realization of p-arguments with that of s-arguments. Languages to be investigated more specifically are German, Japanese, Georgian, Hungarian.

(In)Definiteness and the inherent uniqueness of IC and FC

6. Continuation of the study on determination in Old Georgian, on the basis of online corpora.

7. Investigation of systems that distinguish between strong and weak definite articles, on the basis of selected novels (Dutch) as well as on informant work (Swedish).

8. Morphosyntactic evidence for the marking of type shifts with respect to uniqueness of reference.

9. Elaboration on the determination scale and its predictions. Language-specific cut-off points, integration of analyses of systems that reflect the different modes of definiteness in their inventory of articles (Lakhota, Germanic).

10. Grammatical strategies for identifying (uses of nouns as) FCs in languages that do not have definite articles.

Possessivity and definiteness combined

11. Closer analysis of morphologically overt transitions from SC to RB as well as from FC/RB to IC/SC, against the background of the work on the typology of possession and determination.

12. To which extent is the semantic distinction between concept types grammaticalized outside the noun phrase? In particular, splits in verbal linking systems that are driven by differences in concept type will be investigated.

13. Expression of FCs without designated lexical means: field work on Lakhota

Work Schedule:

1st year (2008/2 and 2009/1):

- morphological splits determined by concept types
- Hungarian: symmetries and asymmetries within the noun phrase
- extension and documentation of the work on determination in Old Georgian
- determination in Germanic: analysis of the findings concerning Dutch strong and weak articles

2nd year (2009/2 and 2010/1):

- analysis of morphologically marked transitions between concept types
- determination in Germanic: informant work on Swedish
- Lakhota field work
- Hungarian: asymmetries in the verbal conjugation
- analysis of further NP-external repercussions of concept types

3rd year (2010/2 and 2011/1):

- integration of results of work on p- and s-arguments into a comprehensive survey of a typology of splits and semantic distinctions
- integration of results of work on determination in terms of typological predictions
- documentation of investigations and results

References: preliminary work

Löbner, S. (2000). Polarity in natural language: predication, quantification and negation in particular and characterizing sentences. *Linguistics and Philosophy, 23*, 213-308.

Löbner, S. (1998). *Definite Associative Anaphora*. ms. http://web.phil-fak.uni-duesseldorf.de/~loebner/publ/DAA-03.pdf

Löbner, S. (1985). Definites. *Journal of Semantics*, **4**, 279-326.

Löbner, S. (1981). Intensional verbs and functional concepts: more on the "rising temperature" problem. *Linguistic Inquiry*, **12**, 471-477.

Ortmann, A. (in prep. a) Conceptual noun types, alienability splits, and the typology of adnominal possession.

[Ortmann, A. & Kiguradze, T. (2008)] 'The factors of variation in definiteness marking in the history of Georgian'. International Morphology Meeting, Vienna, February 5, 2008

[Ortmann, A. & Gamerschlag, T. (2007)] 'The role of functional concepts in the classification of nouns and verbs'

- International Conference 'Concept Types and Fames' of the Forschergruppe 'Funktionalbegriffe und Frames' (FFF 600), Düsseldorf, August 21, 2007
- Semantikzirkel des ZAS Berlin, 25.6.2007
- DGfS-Jahrestagung, Siegen, 1.3.2007

[Ortmann, A. (2006b)] 'Pronomen und Possessorkongruenz im Ungarischen: Nullpronomen oder Ökonomie?' Workshop 'Nullpronomen', Institut für Germanistische Sprachwissenschaft, Friedrich-Schiller-Universität Jena, 12.9.2006

[Ortmann, A. (2006a)] '(Ir)regular valency alternations in possessive contexts'. 39th Societas Linguistica Europaea, Bremen, 1.9.2006

Ortmann, A. (2004). A factorial typology of number marking in noun phrases: the tension of economy and faithfulness. In Gunkel, L., Gereon, M. & Zifonun, G. (Eds.), *Explorations in Nominal Inflection*, Berlin: Mouton de Gruyter.

Ortmann, A. (2002c). The Morphological Licensing of Modifiers. In Samiian, V. (Ed.), *Proceedings of the Western Conference On Linguistics: Volume Twelve, WECOL 2000* (pp. 403-414). California State University, Fresno.

Ortmann, A. (2002b). Economy-based splits, constraints and lexical representations. In Kaufmann, I. & Stiebels, B. (Eds.), *More than words. A Festschrift for Dieter Wunderlich* (pp. 147-177). Berlin: Akademie-Verlag.

Ortmann, Albert (2002a). *Kategorien des Nomens: Schnittstellen und Ökonomie.* Tübingen: Niemeyer.

Ortmann, A. & Handschuh, C. (2004). Semantic factors of valence-changing processes with nouns: possession in the Mayan languages. Ms., University of Tübingen and HHU Düsseldorf.

Van Valin, R. D., Jr. (2000). Focus structure or abstract syntax? A Role and Reference Grammar account of some 'abstract' syntactic phenomena. In Z. Estrada F. & Barreras, I. A. (Eds.), *Memorias del V Encuentro Internacional de Lingüística en el Noroeste*, vol. 1, (pp. 39-62). Hermosillo: Editorial Unison.

Van Valin, R. D., Jr. (1977). *Aspects of Lakhota syntax.* Unpublished Ph.D. dissertation, University of California, Berkeley.

Van Valin, R. D., Jr. (1987). The role of government in the grammar of head-marking languages. *International Journal of American Linguistics*, **53**, 371-397.

Van Valin, R. D., Jr. (1985). Case marking and the structure of the Lakhota clause. In Nichols, J. & Woodbury, A. (Eds.), *Grammar inside and outside the clause* (pp. 363-413). Cambridge: Cambridge University Press.

Van Valin, R. D., Jr. & LaPolla, Randy J. (1997). *Syntax: structure, meaning and function*. Cambridge: Cambridge University Press.

References

Abbott, B. (2006). Definite and Indefinite. In *Encyclopedia of Language & Linguistics. 2nd edition* (pp. 390-392). Oxford: Elsevier.

Barker, C. (1995). *Possessive Descriptions.* Stanford: CSLI Publications.

Baron, I. & Herslund, M. & Sørensen, F. (2001; Eds.), *Dimensions of Possession*. Amsterdam/Philadelphia: John Benjamins.

Boas, F. & Deloria, E. (1941). *Dakota Grammar*. National Academy of Sciences.

Buechel, E. (1970). *A dictionary of the Teton Dakota Sioux language*. Pine Ridge, SD: Red Cloud Indian School.

Chappell, H. & McGregor, W. (Eds.; 1996). *The Grammar of Inalienability: a typological perspective on body part terms and the part whole relation*. Berlin: Mouton de Gruyter.

Dayley, J. P. (1985). *Tzutujil Grammar*. Berkeley: University of California Press.

Dikken, M. den (1999). On the structural representation of possession and agreement. In István Kenesei (Ed.), *Crossing Boundaries. Advances in the theory of Central and Eastern European languages* (pp. 137-178). Amsterdam/Philadelphia: John Benjamins.

England, N. C. (1983). *A grammar of Mam, a Mayan language*. Austin: University of Texas Press.

Fähnrich, H. (1991). Old Geoergian. In Harris, A. C. (Ed.), *The indigenous languages of the Caucasus, Vol. 1: The South Caucasian Languages* (pp. 129-217). Delmar, N.Y.: Caravan.

Haspelmath, M. (1999). Explaining article-possessor complementarity: Economic motivation in noun-phrase syntax. *Language*, **75**, 227-243.

Heim, I. (1983). File change semantics and the familiarity theory of definiteness. In Bäuerle, R., Schwarze, C. & von Stechow, A. (Eds.), *Meaning, use and the interpretation of language* (pp. 164-189). Berlin: de Gruyter.

Heine, B. (1997). *Possession. Cognitive sources, forces, and grammaticalization*. Cambridge: Cambridge University Press

von Heusinger, K. (1997). Salience and Definiteness. *The Prague Bulletin of Mathematical Linguistics*, **67**, 5-23.

Koptjevskaja-Tamm, M. (2001). Adnominal possession. In Haspelmath, M., König, E., Österreicher, W. & Raible, W. (Eds.), *Language typology and language universals.An international handbook. Vol. 2* (pp. 960-970). Berlin: de Gruyter.

Koptjevskaja-Tamm, M. (2002). Adnominal possession in the European languages: form and function. *Sprachtypologie und Universalienforschung (STUF)*, **55**, 141-172.

Löbner, S. (1985). Definites. *Journal of Semantics*, **4**, 279-326.

Lyons, C. (1999). *Definiteness*. Cambridge: Cambridge University Press.

Moravcsik, E. (2003). Inflectional morphology in the Hungarian noun phrase. In Plank, Frans (Ed.), *Noun Phrase Structure in the Languages of Europe*. Berlin/New York: de Gruyter.

Nichols, J. (1988). On alienable and inalienable possession. In Shipley, W. (Ed.), *In honor of Mary Haas. Haas Festival Conference on Native American Linguistics* (pp. 557-609). Berlin: Mouton de Gruyter.

Seiler, H. (1983). *Possession as an Operational Dimension of Language*. Tübingen: Narr.

Stassen, L. (2001). Predicative possession. In Haspelmath, M., König, E., Österreicher, W. & Raible, W. (Eds.), *Language typology and language universals. An international handbook. Vol. 2* (pp. 954-960). Berlin: de Gruyter.

Stiebels, B. (2006). From rags to riches: Nominal linking in contrast to verbal linking. In Wunderlich, D. (Ed.), *Advances in the Theory of the Lexicon* (pp.167-234). Berlin: Mouton de Gruyter.

Studler, R. (2004). Voller und reduzierter Artikel in der schweizerdeutschen DP. In Bračič, S., Čuden, D., Podgoršek, S. & Pogačnik, V. (Eds.), *Linguistische Studien im Europäischen Jahr der Sprachen. Akten des 36. Linguistischen Kolloquiums in Ljubljana* (pp. 625-635). Frankfurt a.M.: Lang.

Thompson, C. (1996). On the grammar of body parts in Koyukon Athabaskan. In Chappell, H. & McGregor, W. (Eds.), 551-676.

Williamson, J. (1902). *An English-Dakota dictionary*. Reprinted 1970. Minneapolis: Ross & Haines, Inc.

3.3 Experiments involving humans or human materials

☐ **yes** ☒ **no**

3.4 Experiments with animals

☐ **yes** ☒ **no**

3.5 Experiments with recombinant DNA

☐ **yes** ☒ **no**