Report

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LO 454/3-1 –Typologie der Funktionalbegriffe

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1.   State of knowledge and goals

The task specified for the first phase was the typology of classification of concepts along two dimensions: the typological variation in the realization of the arguments of RCs and FCs, and the signalling of inherent uniqueness of ICs and FCs by morphosyntactic expressions of definiteness.

We assume that the four concept types each correspond to different modes of determination: according to their lexical meanings, SCs and RCs refer indefinitely, ICs and FCs definitely; the reference (i.e., semantic determination of the referents) of RCs and FCs is relational, or "possessive", that of SCs and ICs is not. Under that perspective, the various morphosyntactic means of determination are expected to serve the following purposes: expressions of definiteness produce NPs that refer uniquely, indefinite determination yields NPs of non-unique reference, and possessive construction correspond to noun concepts referring in relation to an additional argument. The object of investigation, then, is 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.   Results and their significance

A   Typological aspects of the polyadicity of relational and functional nouns

The designated means of realizing the arguments of nouns is possessive constructions. For most languages one encounters the distinction between 'alienable' and 'inalienable' possession. In dealing with the individual objectives, the initial intuition that it is primarily conceptual noun types, in particular the difference between SCs and ICs on the one hand and RCs and FCs on the other, that are underlying this distinction could be made more precise.

1 Typological dimensions of specifying the p-argument in the noun phrase

Morphosyntactically, the alienability distinction is far from being achieved in a uniform manner across the languages of the world. There is, however, one common denominator: with inalienable possession, the morphological specification of the possessor is always closer to the possessum than with alienable possession. Ortmann (in prep. a) offers a comprehensive overview of the different strategies of specifying the p-argument, which includes a catalogue of morphosyntactic oppositions employed by natural languages in order to maintain an alienability contrast:

–   the noun can directly combine with a possessor vs. only through an affix that denotes a 'possessivization' type shift (see example (5) below)

–   pronominal possessor agreement is directly attached to the noun vs. attached to a possessive classifier

–   pronominal possessor agreement is directly attached to the noun vs. mediated by a morphological type shift (see example (6) below)

–   the possessor is realized as a pronominal suffix vs. as a possessive pronoun

–   the possessor is realized as a pronominal suffix vs. as a personal pronoun marked for adnominal case

–   the possessor bears semantic case vs. 'normal' genitive case

–   the possessor is juxtaposed to the possessum vs. mediated by a preposition

The latter two strategies also show that contrary to Nichols's (1992) generalization, and in line with what Stolz & Gorsemann (2001) observe for Faroese, inalienability does not necessarily involve head-marking. Rather, it can just as well be accomplished by a mere case split, as in the Northeast Caucasian languages Budukh and Khinalug, or by different prepositions as in Ewe (Kwa < Niger-Congo) and Acholi (Nilotic) – in other words, without any sign of agreement.

Another point of interest was a long-standing problem of Hungarian possessor agreement, where a plural specification is only found with pronominal, not with lexical possessors. Ortmann (in prep. c) argues that the purely syntactic approach put forward by den Dikken (1999) not only contains serious conceptual problems, but also misses essential generalizations concerning (i) the cross-linguistic role of salience, and (ii) the realization of plural morphology in Hungarian in contexts other than possessor agreement. It is shown that an economy-based constraint analysis has at least the same explanatory adequacy as the assumption of zero pronouns.

Some further aspects of specifying the p-argument have been treated in connection with other objectives of the projects, in particular with the ones under 5 and 6.

2 Typological dimensions of specifying the s-argument in the noun phrase

The question to be examined was whether it is a typologically common option to realize the s-argument in the same way as the p-argument. Apart from Japanese, the pattern is also used by Korean (*onul-uy nalssi* 'today-GENITIVE weather', but we were unable to detect further cases of similar productivity outside of East Asian languages, neither in the literature nor by work with native speakers of various languages. Instead, the pattern that emerges is that the s-argument is realized by those adverbial means the language at issue employs in other, especially temporal, contexts. While these means include, for example, adjectivized time expressions, as well as instrumental case as in Russian *utrom* 'in the morning', the common standard is to license the s-argument by the inessive preposition 'in', or the equivalent local case:

(1)

Hebrew:	*ha-mazkir*	*ha-klali*	*bi-zman*	*defilat*	*ha-homa*
	DEF-secretary	DEF-general	in-time	fall	DEF-wall
	'the secretary general at the time of the fall of the Berlin wall'				

Russian:	*generaljnyj sekretarj*	*v moment*	*padenija*	*Berlinskoj*	*steny*
	general secretary	in moment	fall	Berlin	wall
	'the secretary general at the time of the fall of the Berlin wall'				

Spanish:	*el*	*tiempo*	*en Turquía*
	DEF	weather	in Turkey
	'the weather in Turkey'		

Hungarian:	*a*	*víz*	*hömérség-e*		*a*	*múlt*	*nyár-on*
	DEF	water	temperature -3.SG.POSS	DEF	last	summer-SUPERESSIVE	
	'the temperature of the water last summer'						

It is significant that for the above-mentioned East Asian languages it is generally the case that apart from possessors, all sorts of modifiers of the noun are uniformly licensed by the same particle (*no*, *uy*, and *de* for Japanese, Korean, and Chinese, respectively). Strictly speaking, therefore, although the s-argument is realized in the same way as the p-argument, it cannot be said to be in a designated possessive construction even in these languages. One may speak here, however, of a structural means of realization for the s-argument, as opposed to the oblique realization found elsewhere.

3 Typological dimensions of specifying the arguments of RC3+ and FC3

There are a few RCs and FCs that involve more than two arguments, thus (at least) two p-arguments, for which we use the short-hand notions RC3+ and FC3. Among the candidates are those nouns that express concepts such as 'difference', 'relation(ship)', 'distance'. Apart from an asymmetric strategy (*the relation of / from A to B*) and a symmetric structure with both p-arguments syntactically embedded into one complex phrase (*the relation between A and B*), one might expect that FC3s may also realize both p-arguments by way of possessor phrases. Preliminary studies on the basis of consulting native speakers of various languages yielded, however, that the latter strategy is not available. This is remarkable in the light of the

fact that two possessor phrases are possible with event nominalizations in many languages; cf. Hebrew *ha-taxazit šel ha-tocaot šel ha-mankal*, lit. 'the forecast of the results of the director'. With non-derived nouns, by contrast, at least one of the arguments requires an oblique realization, thus giving rise to the following asymmetrical constructions with a possessor and a prepositional argument:

(2)

Hebrew:	*ha-merhak*	*šel*	*Berlin*	*me-paris*			
	DEF-distance	of	Berlin	from-Paris			
	'the distance from Berlin to Paris'						

Russian:	*otnoschenjie*	*sobak-i*	*k*	*tschelowjek-u*			
	relation	dog-GEN	to	man-DAT			

Spanish:	*la*	*relación*	*del*	*perro*	*con*	*el*	*hombre*
	DEF	relation	of.DEF	dog	with	DEF	man

Hungarian:	*a*	*kutya*	*kapcsolat-a*		*az*	*ember-hez*	
	DEF	dog	relation-3.SG.POSS		DEF	man-ALLATIVE	
	'the relation of the dog to man'						

It is, however, more common to realize both arguments symmetrically, that is, embedded in a pre- or postpositional phrase:

(3)

Hebrew:	*ha-kesher*	*bein*	*ha-adam*	*la-haya*			
	DEF-relation	between	DEF-man	to.DEF-animal			

Russian:	*otnoscheni-ja*	*mjeschdu*	*tschjelowjek-om*	*i*	*schiwotn-ym.*		
	relation-PL	between	man-INSTR	and	animal-INSTR		

Spanish:	*la*	*relación*	*entre*	*el*	*hombre*	*y*	*el*	*reino*	*animal*
	DEF	relation	between	DEF	man	and	DEF	realm	animal

Hungarian:	*a*	*kapcsolat*	*az*	*ember*	*és*	*az*	*álat*	*között*
	DEF	relation	DEF	man	and	DEF	animal	between
	'the relation between man and animal'							

As a next step, we intend to develop criteria in order to decide whether the symmetrical strategy is best analyzed as a mismatch between syntax and semantics in the saturation of arguments, or whether the two arguments are also semantically construed as constituting one complex argument to the head noun.

4 NP-external realization of the p-argument

The issue of NP-external realization of the p-argument has been touched upon, albeit not yet to the extent the matter would deserve. We have reached at the following results: (i) the *double subject*-construction is largely confined to FCs for Japanese, but not for Korean. (ii) Among the licensing conditions of so-called 'possessor raising', inalienability in terms of a part-whole relation may play a more significant role than affectedness in the literal sense of

animacy of the possessor, as the data from Spanish and Korean suggest. Consider the following example (taken from Vermeulen 2005):

(4)

Korean: *John-i   namu-lul   kaci-lul   cal-ass-ta.*
         John-NOM   tree-ACC   branch-ACC   cut-PAST-DECL
         'John cut the tree on the branch.'

Besides, however, grammatical factors are also involved. Spanish allows for such a construction even in case of a non-affected 'raised possessor' object, provided it is realized pronominally; thus: *No le he visto nunca la cara.* 'I have never seen his/her face.'

5 Transitions between concept types

The major point of interest was the overt morphological manifestation of transitions between types. Those that indicate changes in a noun's argument structure type-shifts may be termed 'possessivization' and 'derelativization', and Ortmann (in prep. a) analyzes them as type-shifts on a par with 'definitivization':

In many languages, underlying SC must undergo a morphologically overt argument structure shift in order to be used with a p-argument. Thus, the Koyukon noun in (5a) is an RC, hence inherently, or inalienably possessed, which means that it straight away combines with a possessor phrase or prefix. The noun in (5b,c), by contrast, is underlyingly sortal and can therefore be combined with a possessor only after it is extended by the connective suffix -*e'*, which we gloss as POSS(ESSIVIZER). Likewise, in Jamul Tiipay SCs such as the one in (6c) are made 'possessible' by the prefix *ny-*, which we analyze as denoting a type-shift SC → RC.

(5)   Koyukon (Athapaskan, Alaska; Thompson 1996: 654ff)

	a. *John lo'*	b. *łeek*	c. *Dick leek-e'*
	John hand	dog	Dick dog-POSS
	'John's hand'	'dog'	'Dick's dog'

(6)   Jamul Tiipay (Yuman < Hokan, Mexico; Miller 2001: 145ff)

	a. *me-ntaly*	b. *me-shally*	c. *me-ny-a'naak*
	2-mother	2-hand	2-POSS-chair
	'your mother'	'your hand'	'your chair'

Like with definite articles in combination with ICs and FCs, possessivization connectives may also be redundantly used, that is, attached to those noun stems which underlyingly represent RCs and FCs. This is the case in, for example, Persian (7a) and Western Tarahumara (Southern Uto-Aztecan; quoted after Koptjevskaja-Tamm 2001: 962; (7b)).

(7) a. *mādar-e   man*   b. *kantelário   upí-la*
         mother-POSS   PRON1SG   Candelario   wife-POSS
         'my mother'   'Candelario's wife'

For those languages, then, we are dealing with a polysemous connective: with SCs, it instantiates a type-shift SC → RC, whereas with RCs/FCs, it is purely morphosyntactically motivated, and semantically vacuous. For such languages as Koyukon and Jamul Tiipay, by con-

trast, the marker at issue is not generalized to all concept types, hence invariably denotes the type-shift.

As for the converse operation, which we refer to as 'derelativization' (or 'absolutivisation'), we have found that although it is not as commonly grammaticalized as the previous one it occurs in quite a few (genetically unrelated) languages of the Americas: underlyingly relational nouns that feature 'absolutely', that is, without a p-argument, are overtly changed into one-place nouns by a suffix. In the Mayan language Mam, there are two suffixes which fulfil this function: *-baj* is used with body part and kinship terms, and *-j* with terms for food and clothing.

(8)   Mam (Mayan; England 1983: 69)

     a.   *n-yaa'=ya*   b. *yaa-b'aj*
           1.SG-grandmother-NON3RD   grandmother-DERELATIVE
           'my grandmother'   'grandmother'

     c.   *w-aam=a*   d. *aam-j*
           1.SG-skirt-NON3RD   skirt-DERELATIVE
           'my skirt'   'skirt'

(9)   Movima (isolate, Bolivia; Haude 2006: 236)

     a.   *di:noj*   b. *dinoj-kwa*
           upper_leg   upper_leg-DEREL
           'my upper leg'   'detached leg'

We analyze these suffixes as denoting a shift of the shape RC → SC. Interestingly, such a shift can in turn be followed by the reverse (RC → SC → RC), with the result of providing the possessum with a general contextual relation of possession, as opposed to inherent possession; consider the difference between 'inalienable' (10b) and 'alienable' (10c):

(10)   Koyukon (Athapaskan; Thompson 1996: 666f)

     a.   *nelaane*   b. *be-nelaane*   c. *se-k'e-nelaane*
           meat   3SG-meat   1SG-DEREL-meat
           'meat, flesh'   'his/her (own) flesh'   'my (animal's) meat'

Overt type shifts may thus interact with alienability distinctions. In sum, there is clear typological evidence suggesting (i) that differences in the use of a noun are reflected by the morphology, which in turn suggests that the assumption of type-shift operations as it was independently developed in formal semantics is not without cognitive reality, and (ii) that it is the non-canonical use of a noun that corresponds to morphosyntactic markedness. Though overt possessivization and derelativization may at first sight have a somewhat exotic flavor, they should not be seen as being any more marginal than genuine markers of definiteness, since the latter are also absent from most languages (their presence in most European languages notwithstanding).

One further matter of investigation concerns the different extents of irregularity in those type shifts. These comprise regular affixation (as in the examples under (5) to (7)), prosodic and subsegmental manifestation such as vowel lengthening or change (as in Mam *ptz'on* 'sugarcane' – *n-paatz'an=a* 'my sugarcane'; England 1983:44), and various idiosyncrasies in-

cluding total suppletion (for example, Tzutujil *jaay* 'house' – *woochooj* 'my house'). On the basis of Mam and of Modern Hebrew, Ortmann (in prep. b) shows that alternations that at first sight seem to involve high irregularity are in fact largely determined by general phonological processes of reduction, the application of which crucially depends on the location of word stress. Such processes may conspire to yield weak suppletive forms which in spite of their shortness still exhibit a high degree of transparency.

6 Alienability splits

We started out from the hypothesis that morphosyntactic alienability splits reflect a distinction of concept types, namely that between sortal and relational (uses of) nouns. A natural question to ask, then, was whether the distinction between relational and functional is also grammaticalized in possessive constructions. It turned out that languages do not treat FCs any different from RCs with respect to the realization of the p-argument. More concretely, (i) there do not appear to be any three-way alienability splits that would reflect the types SC, RC, and FC; (ii) languages may differentiate between body parts terms and kinship terms, in assigning only one of the two to the inalienable group, but within these two sub-classes, uniquely referring expressions (e.g., *head*, and *mother*, respectively) are not systematically distinguished from others (e.g., *finger*, *uncle*).

A case study in cooperation with Doris Gerland (currently member project A4) has revealed an alienability distinction in Hungarian which has not previously been acknowledged in descriptions of the language. The split involves the free personal pronoun in addition to the agreement specification of the possessor on the possessed noun: with relational nouns, the p-argument is realized only by the agreement suffix, rather than by an additional free pronoun. (The latter is, of course, possible in case of contrastive emphasis on the possessor, in which case it is realized with focus stress). With non-relational nouns, by contrast, the personal pronoun is realized in addition, even in contexts contrastive emphasis on the possessor; cf. (11a) vs. (11b).

(11) a. *az   ap-ád*   b. *a   te   kalap-od*
        DF   father-2SG   DF   PRON2SG   hat-2SG
        'your father'   'my hat'

That the split distinguishes relational, rather than functional, from sortal is evidenced by the observation that RCs clearly pattern with (11a); thus, *a báty-ád* 'your big brother', *a hug-a*, 'his/her little sister'. The same holds for body-part terms: *a szív-em* 'my heart' and *az uj-am* 'my finger' behave alike. (Interestingly, however, deverbal nouns are 'alienable', since their arguments are realized by the personal pronoun.) What we consider to be significant about this split is, first, that it is in line with the cross-linguistic generalization: greater conceptual proximity between possessor and possessum corresponds to morphosyntactic proximity and to less overt effort and explicitness in marking. Second, as the work with informants suggests, the realization of the pronoun becomes increasingly obligatory with alienable nouns. This would be in harmony with the general tendency (observed by Nichols 1988 and Heine 1997) according to which the inalienable construction is the older one in the diachrony of a given language. Third, in accordance with the above-mentioned results, no distinction between RC and FC is made.

Those possessive noun phrase constructions that signal or presuppose unique reference (for example, the construct state of Semitic) all involve the grammatical dimension of definiteness, and they are not restricted to the underlying concept type of FCs. In particular, the typologically common complementary distribution of prenominal possessors and definite article always seems to include any noun that may undergo such a possessive construction, be it underlyingly functional or not. The conclusion to be drawn is that such constructions coerce an interpretation as an FC, rather than taking it for granted. These findings are in full harmony with the general observation that it is uses of nouns rather than underlying concept types what tends to be grammaticalized.

B Typological aspects of inherent uniqueness of reference

The overall perspective taken by the project is that the four concept types each correspond to different modes of determination. According to their lexical meanings, SCs and RCs refer indefinitely, ICs and FCs definitely. Explicit determiners operate on these lexical predispositions either redundantly (in accordance with the lexical type) or they may shift the type of reference. Redundant determination would be indefinite non-possessive for SCs, definite non-possessive for ICs, indefinite possessive for RCs, and definite possessive for FCs. Nonredundantly, explicit determination can be used in order to shift the type of reference: for example, combining SCs or RCs with definiteness marking or ICs and FCs with indefinite determination. This perspective was further elaborated on the basis of selected phenomena.

7 Definiteness phenomena

The relevance of concept types has proven to be essential for an asymmetry between semantic and pragmatic definiteness in Old Georgian, as a study carried out by Ortmann and Kiguradze has shown. The forms of the Old-Georgian postnominal distal demonstrative pronoun *igi/man/mas/mis* were also used as definite articles, and they furthermore had the function of 3rd person pronouns. Contrary to the commonly held view that "[n]ouns without the article were indefinite, nouns with the article definite" (Fähnrich 1991: 150; cf. also Shanidze 1930), we encountered numerous occurrences of undetermined nouns in definite contexts. In the earliest Old Georgian text, while the article occurs fairly systematically in contexts of pragmatic definiteness (especially anaphoricity), it is hardly found in contexts of semantic definiteness:

(12) a. *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]

   b. *p'ilo-j   igi   saxe   ars   sik'udil-isa*
       elephant-nom DET.NOM face.nom   COP.3SG   death-GEN
       'The elephant is the face of death.'   [Bal]

The SCs "glass", "wine", and "elephant" were all previously introduced in the text; accordingly, they are marked for definiteness. By contrast, the nouns for mouth, face, and death are not anaphoric, hence not accompanied by the article; they are, however, semantically definite since they denote FCs. Only in later texts is the domain of the use of articles extended so as to occur also with underlying FCs, where it is semantically redundant:

(13) *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]

This extension fully matches our original expectations with respect to the diachronical spread across contexts of emerging articles. Furthermore, the data corroborate our expectations with respect to the later decrease of article uses: they are most stable where they are not redundant, that is, in contexts of pragmatic (here: anaphoric) definiteness, which is optionally maintained as long as in the 16th century, as the following passage (taken from the Biblia Mcxetica) illustrates:

(14) *ixiles*   *megvip't'-el-ta dedak'ac-i igi,   rametu šuenier iq'o   priad*
     see.AOR.3PL Egyptian-PL-OBL woman-NOM DET.NOM since beautiful be-AOR.3SGvery
     'The Egyptians saw the woman because she was very beautiful.'   [Genesis 12, 14]

The conclusion that Ortmann & Kiguradze (2008) arrive at is that the distribution of the articles is driven by two major factors: The increase of the use of articles in the Georgian literature especially until the 11th century is to quite some extent due to the high impact of Greek, the source-language of translations. However, as far as language-internal factors are concerned, the distribution within the individual texts is largely governed by the distinction of semantic and pragmatic definiteness, thus, ultimately, by the concept types of the nouns.

The same distinction could also be shown to be responsible for a split in the form inventory of Dutch, which has the weak article forms *de* (utrum gender) and *het* (neuter) in addition to the strong forms *die* and *dat*, respectively. In a study on the basis of selected novels the form distinction was found to correspond to semantic and pragmatic definiteness, respectively. An illustrative contrastive pair is found in the following text passage, taken from the novel *De Aanslag* ('The Assault') by Harry Mulisch:

> *Aan de andere kant voelde ook hij zich onbehaaglijk met de aankondiging van <u>die oude man in Amerika</u>, dat ook een beperkte kernoorlog denkbaar was, en wel in Europa, waar hij dan totaal zou zijn. Dat <u>de oude man in Rusland</u> 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 comforting 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 nuclear superpowers at the time of the cold war. The second NP at issue (*de oude man*), by contrast, behaves as an associative anaphora, and as such is semantically definite: within the now established frame, *oude man* this time enjoys the status of a context-independent FC, in that it unambiguously assigns a referent when applied to the argument "Rusland".

The role of concept types in a parallel classification of nouns and verbs. As a cooperation between the member projects A1 and A2, Gamerschlag & Ortmann (2007) develop a parallel classification of nouns and verbs. We combine the oppositions between sortal vs. relational on the one hand, and between inherently identifiable vs. not inherently identifiable on the other by using the features [±transitive] and [±functional]. This gives rise to four combinations for the concept types SC, RC, IC, and FC, respectively. Further combination with the distinction between count and mass terms, captured by the feature [±structured], duplicates the number of types. In this feature system, each positive feature specification corresponds with semantic complexity: the least marked type [–transitive,–structured,–functional] denotes kinds such as *milk, paper* which cannot undergo mensuration or counting, unless a classifier provides them with the specification [+structured]. Conversely, nouns denoting concepts which are [+transitive,+structured,+functional] are usually highly abstract, and often morphologically derived, or borrowed (*length, difference, odour*). We thus impose a lattice structure on the concept types along the dimension of semantic complexity.

The feature system carries over to the subclassification of verbs as follows: [+structured] "the verb is dynamic, i.e., it has internal temporal structure" (making use of a feature that occurs under various names in, e.g., Jackendoff 1990); [+transitive] "the verb has more than one non-oblique argument"; [+functional] "the verb encodes a dimension", by which we understand a function assigning exactly one value to each individual that matches the sortal properties relevant for that dimension. For example, *last*, as in *The movie lasts two hours*, assigns the value for temporal duration to its subject. By including the latter feature, which has not been employed in the subclassification of verbs so far, we account for the relevant class distinctions, most notably state/activity, transitivity, unaccusative/unergative distinction, telicity, and stative verbs (in, e.g., Korean and Lahkota). Like with nouns, virtually any verb may instantiate more than one class. Gamerschlag & Ortmann (2007) furthermore account for the transitions between the classes. For German, it could be shown that only transitions involving no more than one feature change (i.e., stepwise transitions) can occur without morphological marking, that is, as instances of polysemy (e.g., metonymy, pragmatically-driven shifts). By contrast, more remote transitions, that is those which involve more than one feature change, require overt morphological means such as markers for causative, (anti-)passive and reflexive, as well as verb particles.

3.   Relation of work schedule to outcome

Typological dimensions of specifying the p-argument in the noun phrase: The primary emphasis lay on the typological diversity of possessive constructions and their affinities to the different concept types. Compositional analyses of the major strategies are developed in connection with the objective concerning type-shifts. The various morphosyntactic oppositions employed by natural languages in order to maintain an alienability contrast were given much thoroughness. What is still left open is an account of impossible systems, that is, why are certain strategies confined to some concept type, or why are certain logically possible splits unattested?

Typological dimensions of specifying the s-argument in the noun phrase: Contrary to what one might expects, we have found that the realization of the s-argument in a designated

possessive construction does not appear to be an available option. Rather, it is realized as an oblique phrase, usually by way of an inessive construction.

Typological dimensions of specifying the arguments of RC3+ and FC3, NP-external realization of the p-argument: These objectives were dealt with in preparatory studies, yielding the preliminary results specified above, but are still subject to further investigation.

Transitions between concept types have been dealt with extensively, where particular emphasis was laid on their morphological realization. In particular, overt instantiations of argument extension and reduction on nouns ('possessivization' and 'derelativization') could be shown to behave widely analogously to (in)definiteness marking, in that the markers at issue are often grammaticalized so as to also occur redundantly (in case of underlying unique reference or relationality) in addition to their 'original' contexts of expressing a type-shift.

Alienability splits: The hypothesis that morphosyntactic alienability splits reflect a distinction of concept types could be underpinned and given further precision. It could be shown that 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; in particular, alienability splits are generally based on the latter distinction.

Typological aspects of inherent uniqueness: In our research on definiteness phenomena the original goal was reached in that the relevance of semantic and pragmatic definiteness could be shown to be responsible for major splits with respect to both the form inventory and the distribution of articles (in Dutch and Georgian, respectively). The development of a comprehensive study on the diachrony of the latter language exceeds the objective specified in the proposal. The treatment of definiteness asymmetries outside the noun phrase is intended to be be continued through investigating the verbal conjugation split of Hungarian and other Uralic languages.

The joint work of Gamerschlag & Ortmann (2007) goes beyond the program originally envisaged in that it focuses on the parallels of noun types and verb classes, in particular on the role of functional concepts for the latter.

4.   Publications and activities

Albert Ortmann

Publications
Ortmann, A. (in prep. a) Conceptual noun types, alienability splits, and the typology of adnominal possession.
Ortmann, A. (in prep. b) (Ir)regular valency alternations in possessive contexts.
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Talks
'Typological options in nominal inflection: Neutralisation, contrast, and combinatorial exponence'. 5th Mediterranean Meeting on Morphology, Fréjus, 16.9.2005 (co-author: Carsten Steins)
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[Gamerschlag, T. & Ortmann, A. (2007)] 'The role of functional concepts in the classification of nouns and verbs'
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- Semantikzirkel des ZAS Berlin, 25.6.2007
- International Conference 'Concept Types and Frames' of the Forschergruppe 'Funktionalbegriffe und Frames' (FFF 600), Düsseldorf, August 21, 2007

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

Further activities

Conference organization:

Organization of the international conference 'Concept Types and Frames' of our FFF 600, Düsseldorf, August 2007 (in cooperation with Thomas Gamerschlag, Christian Horn, Markus Werning, and Stefanie Zaun)

Reviews of articles for journals:
− for "Empirical Challenges and Analytic Alternatives to Strict Compositionality", ed. by Frank Richter & Manfred Sailer. Special issue of the *Journal of Research on Language and Computation*.
− for *Morphology*

Reviews of abstracts for conferences:
− for "Strict Compositionality", a workshop held as part of the 17th ESLLI, 2005
− for "Concepts Types and Frames", conference of our FFF 600, Düsseldorf, 2007
− for 18th International Congress of Linguistics (CIL), Seoul, 2008

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

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Publications

Löbner, S. (2005). 'Funktionalbegriffe und Frames – Interdisziplinäre Grundlagenforschung zu Sprache, Kognition und Wissenschaft'. In Alfons Labisch (Ed.) *Jahrbuch der Heinrich-Heine-Universität Düsseldorf 2004* (p. 463-477). Düsseldorf: Heinrich-Heine-Universität Düsseldorf

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