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THE INFLECTION VS. DERIVATION DICHOTOMY: THE CASE OF GERMAN INFINITIVES

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Abstract: Haspelmath's (1996) universal correlation between the inflectional and the derivational status of a transpositional affix and its syntactic properties is employed to analyze infinitive constructions which are found throughout the linguistic history of German. At present, a clear-cut separation between verb-like and noun-like constructions is observed, whereas in Ancient German infinitive constructions are found, which display both verb-like and noun-like syntactic properties. Diachronically, a shift of infinitive constructions towards the derivational pole has taken place, so as to create more noun-like syntactic structures.

Keywords: inflection, derivation, infinitive, nominalization, syntax.

0. INTRODUCTION

The inflection vs. derivation dichotomy has always been one of the much debated topics within morphological theory. One general assumption that is made on this topic concerns the determination of the intrinsic function of the single categories: whereas inflectional morphology has as its goal the fitting of words into syntactic heads, derivational morphology aims at the creation (or the motivation) of (lexical) entities (cf. Kastovsky, 1982; Dressler, 1989).

However, a clear-cut division of the two fields (cf. Anderson, 1992) proves unsatisfactory, because of the great variation occurring crosslinguistically about which morphological categories belong to the former or to the latter domain. Rather, the interpretation of this variation in terms of a continuum between two poles, where on each pole more properties of a specific type thicken, seems to more narrowly mirror reality. The difficulties of a clear-cut division of the two subcomponents of morphology are particularly evident as far as transpositions are concerned. In these cases, we are faced with a number of mixed cases, in which morphologically complex words display properties that are characteristic of both inflectional and derivational categories.
Haspelmath (1996) suggested a universal correlation between the inflectional and the derivational status of a transpositional affix and its syntactic properties. More derivational forms behave syntactically as nouns, whereas more inflectional forms will take verbal complementation:

(1) <-------- + inflectional ---------- + derivational ---------->
<------ more preservation of internal syntax ---------- less preservation of internal syntax ------>

In this perspective, the continuum allows the observation of mixed constructions, where properties of both categories are interwoven with each other, as in the following Sorbian example: (cf. Haspelmath 1996: 52):

(2) mojeho $muž_{N}$-owa_{Agg} sostra
my:GEN husband-POSSADJ-F:SG.NOM sister[F]:SG.NOM
'la sorella di mio marito'

In this case, the possessive adjective *mužowa* behaves like an adjective with respect to the head noun *sostra* 'sister', whereas it looks like a noun when it comes to its own dependents, e.g. genitive modifiers. In this paper, the attention will be drawn on infinitive constructions which we find throughout the linguistic history of German.

1. THE GERMAN INFINITIVE CONSTRUCTIONS

In New High German (=NHG) infinitive constructions are clearly distinct in a nominal type and in a sentential type according to the way of signalling the dependency relation:

(3) a. Die Zerstörung der Stadt war notwendig.
'The destruction of the city was necessary'.

b. Das Zerstören der Stadt war notwendig.
'The destroying of the city was necessary'.

c. Die Stadt zu zerstören, war notwendig.
'Destroying the city was necessary'.

In (3a), an action noun heads the action nominal construction, which displays typical properties of noun phrases: it is determined by the article and the direct object of the verb is in the genitive case. Moreover, the action noun can only be modified by noun-like syntactic modifiers as adjectives, possessive pronouns, etc. These properties are also shared by the nominalized infinitive (cf. 3b), that shows clearly the syntactic properties of noun phrases (cf. 4):

(4) a. Das Zerstören der Stadt war notwendig.
'The destroying of the city was necessary'.

b. *Das Zerstören die Stadt war notwendig.
the destroying the city was necessary

c. Das schnelle Zerstören der Stadt war notwendig.
'The rapid destroying of the city was necessary'.

d. *Das schnell Zerstören der Stadt war notwendig.
the rapidly destroying the:GEN city was necessary

On the other hand, (3c) is a truly verbal phrase, in that the direct object has accusative case and the infinitive is introduced by *zu*. The sentential construction cannot undergo nominalization as shown by the ill-formedness of (5):

(5) a. *Das die Stadt zu zerstören war notwendig.
the the city to destroy was necessary

b. *Der Stadt zu zerstören war notwendig.
the:GEN city to destroy was necessary

c. *Das schnelle die Stadt zu zerstören war notwendig[1].
the rapid the city to destroy was necessary

[1]However, the following constructions are acceptable:

(i) Das schnell-die-Stadt-zu-zerstören war notwendig.
(ii) Das schnell-die-Stadt-zerstören war notwendig.
(ii) Das schnelle die-Stadt-zerstören war notwendig.

These cases present the substantivation of the whole verbal complex containing the infinitive, that must be hyphenated. Notice that in some cases (cf. (ii)) it is possible to omit the complementator *zu*. Moreover, the verbal construction can also be combined with the nominal one (cf. (iii)). However, they are rather marginal in Modern German; in my opinion they resemble the so-called phrasal compounds like Dutch *lach of ik schiet humor* 'a "laugh or I shoot" humour', or *the "ich bin ein Berliner" speech*, etc. (cf. Scalise 1997). In any case, a deeper analysis of this problem is needed.

Notice that the only possibility for a nominalized infinitive to take an accusative object is when incorporation takes place (cf. Dal, 1966: 106):

(6)	a.	Das Gewalt Anwenden.	'The violence employing'.
	b.	Das Türen Zuwerfen.	'The doors slamming'.

In this case, the accusative object cannot be modified, nor can other lexical material be inserted between the object and the nominalized verb. Moreover, in the case of incorporation one of the verbal arguments is saturated by the incorporated noun:

(7) a. *Das Türen Zuwerfen der Fenster
the doors slamming the:GEN windows

b. *Das Schreibenlernen der Buchstaben
the write-learning the:GEN letters

The same is true with compound verbs like *schreibenlernen* (cf. 7a), that also show incorporation (cf. Wurzel, 1993). However, this kind of construction shows a rather low productivity in NHG[2].

On the basis of these data, action noun and nominalized infinitive constructions distinctly belong to the derivational side of the continuum, according to (1), whereas the zu-infinitive construction is clearly close to the inflectional pole:

(8) <-------- + inflectional ---------- + derivational ------->

die Stadt zu zerstören	das Zerstören der Stadt
	die Zerstörung der Stadt

Apparently, the same morphological category, i.e. the infinitive, belongs at the same time both to the derivational and to the inflectional pole of the continuum. Nevertheless, whereas from the point of view of preservation of the internal syntax it clearly belongs to the derivational pole, the infinitive displays a number of properties that are quite typical of inflectional rules. First of all, nominalized infinitives are possible with every verb, i.e. they are not subject to any kind of blocking (cf. Wurzel, 1988); they are moreover "bad" nouns, since they are non-countable; they inherit verbal properties such as the possibility of being made passive, etc.:

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[2]Cf. Fleischer and Barz (1992: 296): "Die verbale Komposition mit einem Substantiv als Erstglied ist zwar stärker ausgebaut als die Komposition zweier Verben, dennoch bilden auch diese Zusammensetzungen nur einen kleinen Teil der komplexen Verben".

(9) a. *Die Zerstören der Stadt waren notwendig.
the destroyings the:GEN city were necessary
b. Das Gesehen-werden ist die Hauptdimension der Kunst
'The being seen is the main dimension of art'.

Therefore, we should put nominalized infinitive and action noun constructions on different levels with respect to the properties they have. Since we are concerned here with nominalizations of verbs, we have to consider prototypical verbal and prototypical nominal properties as the two extreme poles of our continuum. In this perspective, Haspelmath's correlation is only one of the main properties we must take into account, especially important in our case, since we are drawing on word-class changing rules like nominalizations. Then, the continuum from derivation to inflection turns out to be the same as a continuum on which the different devices used to perform verbal nominalizations are lined up, according to the degree in which they either save verbal properties or give them up. As for German, this continuum will appear in the following way:

(10) <V> <----------> <N>
zu-construction nomin. infinitive action noun constr.

2. THE INFINITIVE CONSTRUCTION IN ANCIENT GERMAN

However, the present situation is not mirrored in earlier *états de langue*. In ancient stages of German, the distribution of infinitive constructions is quite different. Nominalized infinitives display nominal complementation inasmuch as they can be modified by the article (cf. 11a, d), the possessive (cf. 11b), the attributive adjective (cf. 11b), as well as by subjective and objective genitives (cf. 11c, d):

(11) a. *Tat. 2, 3* in thero ziti thes rouhennes
'in the time of the smoking'
b. *Nib. 381, 4* ir starkez arbeiten
'your strong working'
c. *Otf. III, 25, 36* sines bluates rinnan
'his blood's running'
d. *Konrad, Silv. 4000* das versuochen Cristes
'the tempting of Christ'

Moreover, the infinitive construction can be modified by adverbs (cf. 12a), prepositional

phrases (cf. 12b) and direct objects (cf. 12b, c):

(12) a. *Wartburgkr. 112, 10* min dort beliben
'my remaining there'
b. *Warn. 3343* da machet gat ein schaeiden die lieben von den leiden
lit. 'there do, friends, a separating the loves from the sorrows'
c. *Nib. 786, 4* da wart vil michel grüezen die lieben geste getan
lit. 'there was greatly greeting the dear guests'

In the above examples the verbal properties typical of the syntax of the verb phrase are combined with nominal properties such as the presence of the article (cf. 12b) or the occurrence of the possessive pronoun instead of the subject (cf. 12a). Notice however that the subject must always be nominally dependent-marked (cf. Behaghel, 1924: 356). On the basis of what has been said in the above section, it is clear that all these phenomena are excluded in NHG. In other words, the infinitive constructions found in Old and Middle High German do not sharply distinguish between verbal syntax and nominal syntax as far as nominalizations are concerned. In comparison with the modern situation, the old stages of German show that the distinction between the inflectional and the derivational status of an infinitive construction in relation to its syntactic properties is fuzzy. It must be represented as a continuum, where the possible cases from one pole to the other are all attested. Evidently, in the course of the linguistic history of German a shift of nominalized constructions towards the derivational pole has taken place, so as to create more noun-like structures. Now, let us try to understand the very nature of this shift and the consequences on the typological level it produces for German.

2.1 The typology of action nominal constructions

Koptjevskaja-Tamm (1993) has singled out a restricted number of well-defined types of action nominal constructions, according to the behavior of the dependent constituents in internal syntax. I will only refer to those types most relevant for my purposes; moreover, I must recall that Koptjevskaja-Tamm defined as S the single argument of an intransitive verb and an intransitive action noun and as A(gent) and P(atient) respectively the external and the internal argument of 'highly transitive' verbs (cf. Hopper and Thompson, 1980). Following Koptjevskaja-Tamm (1993), we thus have:

- a sentential type (SENT), in which all the arguments in the action noun construction (=ANC) retain their sentential dependent-marking:

Basque: Mikel-ek ama-ri diru-a ema-te-a
Mikel-ERG mother-SG.DAT money-SG.ABS give-AN-SG.ABS
oso ondo irudi-tzen za-it
very well appear-HAB (3ABS-PRES)-AUX1-1SG.DAT
'Mikel's giving the money to mother appears very good to me'
(cf. Saltarelli, 1988: 155)

- a possessive-accusative type (POSS-ACC), in which the S and the A in the action noun construction are in the genitive case (or assimilate to the possessor-nominal of non-derived NPs), while the P retains the sentential dependent-marking:

Amharic: yä-pitär bet-u-n mä-srat
GEN-Peter house-DEF-ACC AN-build
'Peter's building the house'
(cf. Koptjevskaja-Tamm, 1993: 284)

- an ergative-possessive type (ERG-POSS), in which the P and the S in the action noun construction are in the genitive case, while the A gets another dependent-marking;

Dutch: het slaan van de hond door Jan
the beat:AN of the dog by John
'the beating of the dog by John'
(cf. Dik, 1985: 24)

- a nominal type (NOMN), in which all the arguments in the action noun construction assimilate to dependents in non-derived NPs.

Latvian: Aleksandr-a Egipt-es iekaro-šana sāgrava zemi
Alexander-GEN Egypt-GEN conquer-AN destroyed country:ACC
(cf. Koptjevskaja-Tamm, 1993: 296)

We can now attribute the Old and Middle High German infinitive costructions seen in (12) to the POSS-ACC type, whereas the NHG infinitive constructions belong to a pure NOMN type. In short, notice that German marginally displays cases (cf. 5 above) of the incorporating type (INC), in which the P forms a part of the complex action nominal, the S retains its sentential dependent-marking or genitivizes, while the A is either similar to the S or turns up as an oblique NP:

Hungarian: Péter újság-olvas-ás-a
INC Peter newspaper-read-AN-3SG.POSS
'Peter's reading of newspapers
(cf. Koptjevskaja-Tamm 1993: 298)

However, we have already observed how marginal they are for NHG.
Clearly, this typological classification may be ordered in accordance with the degree to which the single types are more sentence-like or more NP-like (cf. Koptjevskaja-Tamm, 1993: 254-5). If (1) is now reviewed under this typological perspective, we obtain the following picture for German:

(13) SENT ----- POSS-ACC ---------- ERG-POSS ----NOMN
<----- more sentence-like ---------- more NP-like --------->
OHG, MHG OHG, MHG, NHG

Notice that the ERG-POSS type also occurs in German, at least in NHG, when both A and P occur:

(14) Die Verhaftung der Diebe durch die Polizei fand vor der Bank statt.
'The arrest of the thieves by the police took place in front of the bank'

For older stages of German, evidence of the ERG-POSS type is probably lacking because of the relative rarity of action noun constructions containing both arguments. Although the only evidence I have for the dependent marking of A points to the NOMN type (cf. 15),

(15) *Myst. I, 352, 6* Samuelis minne siner viende
'Samuel's love for his enemies'

I cannot completely exclude the possibility of constructions like (14) in older stages of German. One finds for example cases where the S and the A are marked by means of the preposition *von*:

(16) *Nib. 2069, 4* do muost ez an ein striten von den Tenemarke gan
'there must be a fight among the Danes'

Moreover, the SENT type is rejected in Old and Middle High German as far as the sentential marking of S and A, i.e. of the external argument of the verb, is concerned (cf. Behaghel, 1924: 370). This means that a clear parameter for the evaluation of infinitive constructions is

given by the sentential or nominal marking of the subject. The shift of infinitive constructions towards the derivational pole can be evaluated with respect to the possibility of converting the internal syntax of the underlying verbal phrase into nominally-marked dependents, as represented in (17) (cf. MacKenzie, 1987; Abraham, 1989):

(17)	OHG, MHG	NHG
1. nominative subject representation	-	-
2. accusative object representation	+	-
3. adverbial modification	+	-
4. adverbial > adjectival modification	+	+
5. definiteness operator	+	+
6. indefiniteness operator	+	+

The properties illustrated in (17) can be put into a diagram that mirrors the number of properties of both types (i.e. sentential and nominal) that the infinitive constructions have in ancient and modern times:

```
(18)        <V> ---- (1) ---- (2) ---- (3) -------- (4) ---- (5) ---- (6) ---- <N>
OHG                  *      + ------------------------------------------------>
NHG                  *      *      *          + --------------------------->
```

Notice that the situation described for infinitive constructions also holds true for action nominal constructions containing a clearly morphologically-derived noun and for agentive nouns, since one occasionally finds the following examples:

(19) a. *Görlitzer Magdeb. Rechte*: von behurunge eines mannes wîb
'of molesting a man's wife'
b. *Geiler, Pilgerschaft 43a* mit besitzer mit dir das rych der ewigen seligkeit
'with the owner of the realm of everlasting joy together with you'

In these cases, a direct object in the accusative depends on a nominal head (cf. Behaghel, 1923: 723; Göransson, 1911: 37). This fact gives further evidence of the ambiguous status of deverbal nominalizations in these old stages of German.
It seems, in other words, that the range of transposed predicates (cf. Porzig, 1930-31: "Namen für Satzinhalte") characteristic of nominalizations is still clearly visible (either in action/agent noun constructions or) in nominalized infinitives. This phenomenon can be adequately explained only if one assumes a morphological theory that accounts for the facts in terms of the targets morphology has to fulfil as a component of language. With this in mind, the main

goals/functions of morphology are two: the function of nomination, usually fulfilled by the word formation/derivational rules, and the function of textual-syntactic motivation of the words in a text, best fulfilled by the inflectional rules (cf. Dressler, 1989; Gaeta, 1997; Kastovsky, 1982). Nominalizations represent in this perspective a non-prototypical rule of word formation since they don't fulfil the primary function of word formation, i.e. that of nomination, whereas, on the other hand, they fulfil the function of textual-syntactic motivation. This explains the non-prototypical status of transposed predicates among the nouns, since they don't show the prototypical properties of nouns. Thus, the theory predicts that nominalizations will show (syntactic among others) properties similar to inflectional morphology, since they share the function of textual-syntactic motivation.

The same situation as in Old and Middle High German can still be found in Early New High German (=ENHG), where infinitive constructions can occur either with noun-like complementation or with sentential constructions, i.e. with accusative objects and predicate nominals:

(20) a. *SdM 69a* es ist ein vnderschid zwuesche neuwe meer sagen und / uppige wortt reden
'it is a difference between saying something new and expressing superfluous words'
b. *Pauli, Schimpf und Ernst, 50a* (XVI c.) vnd erzeigt semtliche andacht mit küssen das kreütz
'and it gives rise to general praying by kissing the cross'
c. *S 29b-c* Darauß kompt / das ware armu(o)t nitt stat im nüt hon / aber in wo(e)llen arm sein /
'thence it turns out that true poorness does not consist in possessing nothing, but in being fully poor'

However, the distribution in ENHG is different with respect to MHG: the co-occurence of accusative objects and articles on the infinitival head is scarcely found:

> "Steht die Infinitivform ohne Artikel, Pronomen oder Adjektiv direkt nach einer Präposition, so finden sich Kasusobjekte als Ergänzungen des Infinitivs häufiger als in den Fällen, wo der Infinitiv mit diesen gewöhnlichen Bestimmungen eines Substantivs steht" (Ebert, *et al.*, 1993: 411).

To sum up this section, we have seen that Ancient German does not match the typology of NHG as far as the parameter of internal vs. external syntax of nominalizations is concerned. They appear to be much closer to the inflectional pole than in NHG, in as much as infinitive (and action noun) constructions display a partial preservation of internal syntax, a property which is more typical of inflectional rules. In fact, infinitive constructions cover a wide area of

phenomena that comprise, beside nominalized infinitives, a whole range of constructions containing a bare infinitive (and, marginally, action nouns). In other words, the morphological category of the (bare) infinitive is in Ancient German much more widespread than in modern times. In this perspective, we are not amazed observing that still in ENHG "particularly when the infinitive appears in subject position, we find overlap and doubtless a blending (neutralization) of the two contruction types" (Ebert, 1976: 17). This means that in Haspelmath's diagram reported above in (1) nominalized infinitives lie much closer to the inflectional pole than to the derivational one: in other words,

> "L'évolution du groupe infinitival en allemand montre que la distinction entre l'infinitif "nominal" et l'infinitif "verbal" s'est faite lentement. L'allemand médiéval possède un système mixte, caractérisé d'une part par des exemples nets de valeur entièrement verbale ou entièrement nominal, d'autre part par des exemples hybrides" (cf. Feuillet, 1989: 548-9).

2.2 The zu*-construction*

The shift of the infinitive constructions towards the derivational pole (or the NOMN-type) runs parallel with the expansion of the *zu*-construction. This construction was originally in competition with the bare infinitive, signalling mostly final or goal clauses:

(21) *Vierte Bibel, Richter 3, 12* die sun israhel zuolegten ze thun das ubel
'Israel's sons began to do evil'

According to Erdmann (1874: 213), this *zi*-infinitive had a purposive meaning in most cases in Otfrid, e.g.:

(22) *O. V, 12, 27* er ward zi manne, bi si zi irsterbanne
'he became a man in order to die with them'

However, "die Anknüpfung durch Präposition bringt das logische Verhältnis deutlicher zum Ausdruck, deshalb hat in diesen Verbindungen der präpositionale Infinit den einfachen allmählich verdrängt" (Dal 1966: 108). The path for the grammaticalization of this construction is illustrated by Ebert (1976: 81): "From an historical point of view, *zu* (when it appears with infinitive) developed from a very preposition-like morpheme to a very complementizer-like morpheme as it wormed its way into more and more constructions where previously only the bare infinitive or finite clause complements had stood". This construction has a completely different syntactic behavior from the nominalized infinitive, insofar as:

- it cannot form a unique constituent with its own subject;
- it always displays a sentential dependent-marking, i.e. the P cannot appear in the genitive form;
- it can freely occur with the reflexive pronoun *sich*, which is excluded for nominalized infinitives:

(23) *Nib. 1522, 2* do wart in dem lande ein michel ueben[3]
'there was in the country a great practicing'

Following Koptjevskaja-Tamm (1993: 30), I will call these constructions deranked sentence-like complements: they display a true verbal predicate, even though in a non-finite form (deranked), and every syntactic relation between predicate and complements is sententially-marked. The *zu*-construction does not mix nominal and verbal syntactic properties at all, as far as the internal syntax of the construction is concerned.
Moreover, the *zu*-construction and the nominalized (or bare) infinitive display a different (external) syntactic behavior too. Firstly, recall that *zu*-constructions usually do not combine for example with articles, as shown in (5a), which is a clear-cut mark of nominalized infinitives. The only exception quoted in literature (cf. Behaghel, 1924: 307) is taken from Gothic, where one finds a form like Mc. 10, 40 *thata du sitan* 'the sitting', that relies however upon the Greek model *τὸ καθίσαι*. Secondly, *zu*-constructions are only in later stages able to occupy the subject position of a sentence. In this connection, Behaghel (1924: 307) observes that

> "die Fähigkeit der Substantivierung kommt nur dem bloßen Infinitiv zu. Im übrigen erscheint auch der Infinitiv mit *zi* von Anfang an als Ergänzung des Verbs, des Substantivs, des Adjektivs, in späterer Entwicklung auch als Subjekt des Satzes sowie in absoluter (elliptischer) Ergänzung".

In other words, the *zu*-construction prevailed as a non-finite dependent clause type over the bare infinitive since the XV c. (cf. Paul, 1920: 111; Behaghel, 1924: 309-25), and occupied thereafter the space on the left side of the continuum represented in (18). As a consequence, less sentential constructions (i.e. nominalized infinitives) moved slowly towards the derivational pole, abandoning less prototypical syntactic behavior, as the ones shown above. This shift can be represented in (24), where the two constructions are compared:

---

[3]Cf. Behaghel (1924: 372): "Ist der Akkusativ durch das Pronomen reflexivum gebildet, so fehlt dies in älterer Zeit in der Regel beim substantivierten Infinitiv". However, some examples of nominalized infinitives occurring with the reflexive pronoun are found, though rarely, in Ancient German: N. I, 62, 32 *din muotprechen dih* 'your losing heart'.

```
(24)        <V> ---- (1) ---- (2) ---- (3) -------- (4) ---- (5) ---- (6) ---- <N>
ANC                  *       *       *          + ---------------------------->
ZU-C        <--------------------------- +          *       *       *
```

In ENHG, "we find zu+infinitive firmly established as a subject complement" (cf. Ebert, 1976: 3). On the basis of this polarization, it is possible to explain why nominalized (or more generally bare) infinitives and *zu*-constructions display a different syntactic behavior in the oldest stages of German as observed by Behaghel. Evidently, in those ancient times the raising to the subject position was forbidden for deranked sentence-like complements. Only later, when a fairly clear dichotomy had been established between the two syntactic types, was there a complete levelling of the observed syntactic asymmetries.

Notice, however, that still in modern times bare infinitive constructions are occasionally found. However, their occurrence is restricted to the following cases: a) after modal (and a small set of other) verbs (cf. Eisenberg, 1989: 370ff.); b) in subject position when it precedes the finite verb: "Die wahl zwischen den beiden status beruht vor allem auf topologischen prinzipien, und zwar so, daß der 2. status [the zu-construction, LG] überall möglich ist, während der 1. status [the bare infinitive, LG] nur unter besonderen topologischen bedingungen vorkommen kann. Der 1. status wird nämlich fast nur in solchen fällen verwendet, wo "H [the dependent verb, LG] vor 'H [the main verb, LG] steht. Wenn 'H vor "H steht, wird mit anderen worten fast immer der 2. status benutzt, und der 2. status scheint bei dieser reihenfolge obligatorisch zu sein" (Bech, 1983: 286).

3. THE CYCLIC BLEACHING OF THE INFINITIVE

In any case, the shift of the nominalized infinitive towards the nominal (derivational) pole, as well as the spreading of the *zu*-construction in those positions once occupied by the bare infinitive require an explanation: a simple statement of the observed diachronic trends is certainly unsatisfactory. In my opinion, a good explanation has been provided by Haspelmath (1989), although he did not concern himself with the kind of asymmetries I have singled out in this paper. Nevertheless, his main concern is that the formation of the infinitive must be understood as a process of semantic bleaching, as represented below:

```
        benefactive
(25)    allative ---------> purposive ---> irrealis- -----> irrealis- -----> realis- --------> (realis-factive)
        causal                             directive        potential        non-factive
```

(Haspelmath, 1989: 298)

The original (final or) purposive meaning of the infinitive complement subsequently weakened.

As a consequence, infinitive constructions appeared as complements of several matrix verbs, whose argument structure did not contain a semantic role of goal. The process of semantic bleaching (or, as Haspelmath calls it, of grammaticization) is completed when infinitival clauses may occupy the subject position. In this respect, we observed formerly that nominalized (and bare) infinitives can occur in the subject position in older stages of German. However, the semantic (final) content of the infinitive expression is cyclically strengthened by the combination with (directional) prepositions such as *zu*. In the course of the linguistic history of German, the *zu*-construction also underwent the process of semantic bleaching, losing its purposive meaning and being successively reinforced by the preposition *um*. At this time, it became the new counterpart of the non-finite form of the verb and, of course, it could also appear in the subject position. As seen above, at present the situation seems to be quite stable. As far as the "verbal" pole is concerned, the bare infinitive has practically disappeared, apart from its use in combination with modal verbs, whereas verbs that admitted a bare infinitive complement in Ancient German tend to take *zu*-constructions (cf. Dal, 1966: 101):

(26) i. MHG: *Nib. 40, 2-4*: Sigelint ... pflac ... teilen rôteȝ golt
'Sigelint took care of giving red gold'

ii. NHG: Die Mutter pflegte ihre Kinder zu waschen.
'The mother took care of washing her children'.

Moreover, final complements are expressed by means of the *um zu*-construction, as in the following example:

(27) Er ging nach Amerika, *(um) Arbeit zu finden.
'He went to America to find a job'.

On the nominal pole, the nominalized (bare) infinitive displays a clearly nominal syntax, having abandoned the sentential properties we observed in the medieval period, when it behaved as the POSS-ACC type.
If we recall that infinitives originate from verbal nouns[4] (cf. Behaghel, 1924: 306), a sort of circular movement of the verbal noun can be established[5]:

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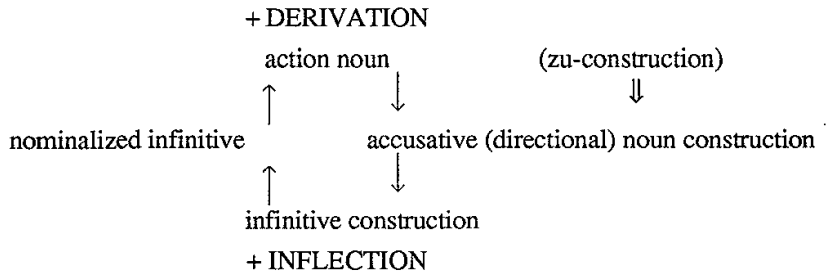
[4]German *-en*, OHG *-an* goes back to Proto-Germanic **-ana-m*, accusative case of a verbal noun in **-ana-* (corresponding to Old Indic *-anam*, Proto-Indo-European **-ono-m*).
[5]Cf. Paul's (1959: 132) words: "Während der Inf[initiv] zunächst von seinem substantivischen Ursprunge abgerückt ist, hat er sich später wieder substantivischer Natur mehr oder weniger angenähert".

(28)



In (28) the *zu*-construction can be looked at as an external force, that worked on the system in order to strengthen the original purposive value of the infinitive. At the same time it underwent the same process of semantic bleaching, so as to occupy the position of the bare infinitive construction. The whole caused a re-determination of the functional space, which is now neatly divided in accordance with the sentence-like type and to the NP-like type.

Notice that the last step, i.e. the decay of the infinitive and its use as an action noun, can be found in a Romance language like Rumanian, where a process of bleaching of the infinitive has taken place similar to the one observed for German: Rumanian is at present on the way of losing completely the verbal infinitive (the so called 'long infinitive'[6]), since it is replaced in dependent clauses by finite subordinates either with the subjunctive headed by the complementizer *să* or with the indicative headed by *că* (cf. Joseph, 1983: 149ff.). According to Mayerthaler, *et al.* (1993: 39), the "verbal" use of the infinitive is restricted to sentences like the following:

(29) E frumos la plimba-re
is nice in walk-VN
'going for a walk is nice'

The long infinitive displays at present a noun-like complementation (cf. Mallinson, 1986: 214):

(30) învăţa-re-a limbilor străine
learn-VN-DEF language:DEF:GEN.PL foreign:F.PL
de către englezi
by towards English:M.PL
'the studying of foreign languages by the English'

[6]Beside the long infinitive, Rumanian has developed a "short" infinitive, when dependent on verbs like *a putea* 'can' or *a şti* 'know', as an alternative to the subordinates with the subjunctive: *căci nu putea afla răgaz* 'since he could not resign' (cf. Joseph, 1983: 162). Notice that the quotation form of the short infinitive *a afla* 'find' contains the old allative Latin preposition *AD* > *a*, that presumably strengthened at a certain point the purposive meaning of the infinitive, according to the reconstruction provided by Haspelmath (1989).

The present derivational suffix *-re* derives historically from the Latin infinitive, i.e. an inflectional form, which derives in its turn from an original locative suffix **-se* (cf. **age-se > age-re*) of the verbal noun (cf. Szemerényi, [1970] 1985: 366ff.), presumably grammaticalized following Haspelmath's pattern reported avove in (25).

4. CONCLUSION

Let me briefly sum up the results of this discussion. The universal correlation suggested by Haspelmath (1996) has proved very useful in order to establish the nominalization types involving infinitives in Ancient and Modern German. Moreover, I have been able to account for the changes that occurred throughout the history of German in terms of shifting on a continuum, which aimed at a polarization of the two main constructions according to their prototypical properties. In particular, I have attempted to show that the very motivation of this shifting relies upon the emergence of the clearly verbal *zu*-construction, which, in its turn, is the result of a process of semantic bleaching infinitives usually undergo. Of particular interest is the fact that the bleaching process takes place cyclically, so as to give rise to bleached constructions (e.g. the *zu*-construction) and to new more complex ones, that are supposed to undergo the same bleaching process. The cyclical process of semantic bleaching can definitely be represented as a spiral, as in von der Gabelentz's (1901: 256) words:

> "Nun bewegt sich die Geschichte der Sprachen in der Diagonale zweier Kräfte: des Bequemlichkeitstriebes, der zur Abnutzung der Laute führt, und des Deutlichkeitstriebes, der jene Abnutzung zur Zerstörung der Sprache ausarten lässt ... immer gilt das Gleiche: die Entwicklungslinie krümmt sich zurück nach der Seite der Isolation, nicht in die alte Bahn, sondern in eine annähernd parallele. Darum vergleiche ich der Spirale".

As can be observed for example in Dutch, a language very close to German in many respects, the *om te*-construction has already lost its semantic (purposive) content, giving rise to the examples in (31), absolutely ungrammatical in German:

(31) i. Hij probeerde (om) het hek te sluiten.
Er versuchte, *(um) den Zaun zu schliessen.
'He tried to close the fence'.

ii. Het past je niet (om) dat te doen.
Es paßt dir nicht, *(um) das zu machen.
'It does not become you to do that'.

This means that in Dutch this construction is on the way to bleaching its directional content, becoming a true infinitive. However, the process is not complete, as shown by the following

example, where a verb of saying does not allow the *om te*-construction:

(32) Moeder zei (*om) vroeg thius te zullen zijn.
'Mother said she would be home early'.

Notice that Dutch has gone further than German as far as another case of transposition is concerned, namely the formation of participles/verbal adjectives. A similar hierarchy as the one for infinitives can indeed be established for adjectives derived from verbs. When the latter are derivational, they are called "verbal adjectives", and when inflectional "participles" (cf. Haspelmath, 1996 for details). According to Abraham (1989), German and Dutch differ as far as the possibility for the participle to be fitted either into attributive or predicative constructions. Whereas a Dutch participle can be used as a true adjective in both contexts, German allows only the attributive one:

(33)	*?Ich bin abschiednehmend	vs.	der abschiednehmende Lehrer
	Ik ben afscheidnemend(e)	vs.	de afscheidnemende leraar
	'I am taking leave'		'the leave taking instructor'

Should this mean that German will also slowly undergo the same process, and, in particular, that the bleaching process will have far-reaching consequences on the status of nominal and verbal infinitive constructions? Only time will inexorably provide the right answer. However, an argument that speaks against further shifts along the continuum in (1) is the well-established symmetry reached by German and represented in (24). Nevertheless, we have seen above that diachronic changes are the result of a complex dialectic in which different and counteracting forces play a role.

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