VERBAL DERIVATIVES AND PROCESS TYPES IN TRANSITIVITY CONFIGURATIONS OF ENGLISH AND GERMAN CLAUSES

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Abstract. At the level of the clause as representation we reconsider the proposition of Systemic Functional Grammar (SFG) that there exists continuity between grammar and lexis. In English and German clauses, we shall examine verbal derivatives formed through prefixation with regard to the process types they actualize in the clauses. Prefixation involves the modification of the semantic properties of the base, which requires different configurations of semantic roles in a clause in functional terms. The idea that lexicogrammar is a core of the wording of the clause will be examined in relation to morphologically induced semantic modification resulting in the change in Transitivity configurations with different process types actualized by the base and the verbal derivative.

Key words: lexicogrammar, process type, clause, prefixation, Transitivity

1. INTRODUCTION

Lexicogrammar is a stratum of the content plane, the resource for construing meaning as wording through the combination of grammar and lexis. As explained in Tucker (1998: 4), lexicogrammar indicates that in language there is no separate lexicon as a list of lexical entries, but rather a network of options as meaning potential, which are both structural and lexical. We shall explore the impact of prefixation on the content of derived verbs and on the Transitivity configurations in the clause. The derivatives formed by prefixation typically represent a process different from the process represented by the base, which conditions the rearrangement of the semantic roles within the clause. English and German clauses will be analyzed in the experiential metafunction, in which the clause is viewed as a representation of the extralinguistic world or the inner world of the speaker. The description of the clauses examined with reference to the system of Transitivity is a semantically oriented decomposition of the clause. The analysis takes
into consideration the syntactic structuring of the clause as dependent on the process type and the roles of the Participants of the process.

1.1. The experiential meaning in SFG

The clause exhibits lexical and syntactic systems within the textual, interpersonal and experiential metafunctions, the central systems being Theme (textual), Mood (interpersonal) and Transitivity (experiential). Halliday and Matthiessen (1999: 150-153) describe the principle on which grammar categorizes experience within experiential metafunction, and they classify all phenomena into the following experiential domains:

a) phenomena which happen within the realm of our consciousness;

b) phenomena which happen in the perceptual world around us; and

c) phenomena which are not happenings, but kinds of being and of relating to something else.

The phenomena can be further categorized as (1) figures of sensing, (2) figures of saying, (3) figures of doing and happening and (4) figures of being and having. In SFG, the figures are referred to as processes; most importantly, in semantic terms, they are characterized with reference to the forms of participation involved (Halliday and Matthiessen 1999: 150-153). Sensing is represented as a mental process, the process of human consciousness; the Senser is a human being, or a Participant endowed with human-like consciousness (e.g. animals, cf. Downing and Locke 2006: 140). The Phenomenon might be viewed as having a double nature, since in the clause *Do you like those colors?* it is a part of the environment, while in *Do those colors please you?* it seems to have a more active role in the process.

Material processes always involve an Actor. The Actor performs the process, which may impact the Goal (Affected Goal), or may result in producing the Goal (Effected Goal). Other Participants that may be present in the clause are the Beneficiary, the one that benefits from the process, and the Scope, the one that defines the domain over which the process extends (e.g. *I started writing short stories while I was at Yale*, Halliday and Matthiessen 2004: 185).

In verbal processes, the Sayer is prototypically human, but may also be a source of symbol or information, e.g. *The instructions tell you to switch it off first*. The Sayer is the originator of a process of semiotic activity. Another Participant is the Receiver, whose role is that of decoding what is said. What is said may also be construed as a Participant – the Verbiage. There may be another Participant functioning as the Target of the process (e.g. *The study says that such a diversified village structure produces a dualistic pattern of migration*, Halliday and Matthiessen 2004: 254). There is a subtype of saying that imparts action and impact, when the Sayer ‘does something to’ another Participant by means of a verbal process, as in *Everybody praised her courage*.

In processes of being (relational clauses) there are two Participants, which may be related by ascription as Attribute to Carrier. The Attribute is a Participant in an ascriptive relational clause which ascribes or attributes some class to the Carrier. The Carrier may be characterized by the Attribute either by reference to the class to which it is ascribed or by reference to a quality of the entity that constitutes the class. The two Participants in relational clauses may also be related by identification, a relationship involving Token and Value (e.g. *The scope of European trade was becoming oceanic and worldwide*, Halliday and Matthiessen 2004: 222).
Existential processes convey that something exists or happens. Typically, existential clauses contain the verb be; verbs such as exist, remain, follow, emerge can also be used. The Participant role of whose existence the clause speaks is the Existent (e.g. There was confusion, shouting and breaking of chairs, Halliday and Matthiessen 2004: 256).

Behavioural processes are typically human, and they represent physiological and psychological behaviour, such as breathing, coughing, smiling, dreaming, etc. The Behave is a conscious being, most naturally human (e.g. Sub Inspector Guha too had fainted and the others were looking at APV as at a unique building or beauty, Halliday and Matthiessen 2004: 250).

1.2. Transitivity

Transitivity is the grammar of processes; its resources are employed to represent our experience of the world around us and inside us. The experience is represented through units of meaning which are ranked and organized as semantic types, structured within the clause as configurations of semantic roles. The configurations contain a process and Participants; the classification of process types is based on semantic criteria. Bloor and Bloor (2004: 109) explain that the term ‘process’ in SFG is used to refer to what is going on in the whole clause and to the part of the proposition encoded in the verbal group. Halliday and Matthiessen (1999: 134-135) describe the following transitivity features of process types:

a) Directionality of process – mental processes are typically bidirectional, and are realized in two configurations, e.g. I like it and It pleases me. In the former the Senser’s consciousness has the Phenomenon as its domain, and in the latter the Phenomenon affects the Senser’s consciousness. All other processes are unidirectional;

b) Nature of Participants – In mental clauses, the Senser is endowed with consciousness, e.g. He thought the moon was a balloon. This constraint does not apply to the Participants in other clause types;

c) Unfolding in time – In material clauses, the unmarked present tense is present-in-present, e.g. He is mowing the lawn; in other process types it is the simple present, e.g. She believes he’s mowing the lawn;

d) Participation – Material clauses have a so called pro-verb do which serves to check whether the Actor does something, i.e. whether the process is that of doing, e.g. What he did to the lawn was move it. The probe is not applicable to other clause types (*What he did to the story was believe it; *What he did to the lawn-mower was have it).

1.3. Transitivity system of German

The literature has provided an extensive account of the Transitivity system of the English language. We shall here refer to what has been reported on the German Transitivity system by Steiner and Teich (2004: 139-184). They first discuss mental clauses of the affection type. In the clause Das Haus gefällt mir (lit. the house pleases me) the Senser (mir) is in dative case and the Phenomenon (das Haus) is in nominative case. We may observe that different verbs require different syntactic structures and morphological forms within the same process type. In the clause Alle mögen das Haus (lit. everyone likes the house) the Senser is the Subject and the Phenomenon functions as the Direct Object through the accusative case. Even one-participant mental clauses, usually of the perception type, exhibit various configurations with different cases of noun
groups. These contain only the Senser, e.g. 1) *Ich friere* (lit. I freeze), in which the Senser is in nominative case, 2) *Mich friert* (lit. it freezes me), with the Senser in accusative case, and 3) *Mir ist kalt* (lit. to me is cold), with the Senser in dative case. Typical mental process configurations involve clauses in which the second Participant, i.e. the Phenomenon, is introduced by the pro-forms *es* and *davor* plus the *dass*-clause, e.g. *Ich finde es schrecklich, dass er so viel trinkt* (lit. I find it terrible that he so much drinks).

Steiner and Teich (2004: 139-184) enumerate different possibilities of verbal clause structuring, and distinguish between subtypes according to the Verbiage, which can be 1) a noun group *Sie erzählte ihre Geschichte* (lit. she told her story), 2) a *dass*-clause *Sie sagte, dass sie von weit her gekommen sei* (lit. she said that she from afar had come) or 3) a minor clause *Sie empfahl einen anderen Kurs zu besuchen* (lit. she recommended another course to attend). Steiner and Teich (2004: 139-184) make an interesting point when they contrast German to English clauses. Noun groups which function as the Sayer in German clauses are semantically restricted. In English, the Sayer is not necessarily human, whereas in German it should be human, i.e. capable of verbal communication. We should note here, then, that the symbolic communication of information in verbal processes, e.g. *The clock says FM*, is not possible in German.

Finally, Steiner and Teich (2004: 139-184) provide numerous examples with variations in the material clause structure, which depend on lexical verbs requiring different cases with noun groups, as in the following:

1) *Er backte ihr* (Participant: Client, dat. case) *einen Kuchen* (Participant: Goal, acc. case) (lit. he baked her a cake);

2) *Sie verschenkte das Buch* (Participant: Goal, acc. case) *an Christian* (Participant: Client, dat. case) (lit. she gave as present the book to Christian);

3) *Er folgte mir* (Participant: Goal, dat. case) (lit. he followed me).

2. VERBAL DERIVATIVES AND PROCESS TYPES IN ENGLISH AND GERMAN CLAUSES – SAMPLE ANALYSIS

English and German verbs may be derived by prefixation (Ger. ‘Präfigierung’), in which a prefix (Ger. ‘Präfix’) is attached to a base (Ger. ‘Stamm’). In German, there are two subtypes of verbal prefixes: (1) separable (Ger. ‘trennbar’), e.g. *an-, ab-, auf-, aus-, bei-, durch-, ein-, hinter-, mit-, nach-, über-, unter-, vor-, wider- and zu-*, and (2) inseparable (Ger. ‘untrennbar’), e.g. *be-, ent-, er-, ge-, hinder-, miss-, ver- and zer-. Prefixes in German can be attached to a base of English origin, such as *zerpatchen* (Altmann 1989: 581-599). As for English, Bauer (1983: 31) claims that prefixation is typically class-maintaining. Adams (2001: 41) notes that verbs derived by prefixation are typically ‘accomplishments’, which can be observed in pairs such as *livelrelive, controldecontrol and representlimisrepresent*. Verb-forming prefixes in English include *re-, dis-, over-, un-, mis-, out-, be-, co-, de-, fore-, inter-, pre-, sub-, trans- and under-*, but few are prominent in new formations in common use (Adams 2001: 43).

Prefixation is a process which affects the morphological features of the base and results in a new lexeme of distinct semantic features. In the literature, derivational affixes are often referred to as lexical units, which, although bound in the morphological sense, have a content of their own, adding to the content of the base, even though, admittedly, they can be
graded on a scale of “more grammatical” (such as gender specifying derivational suffixes in English) to “more lexical”.

The sample we have examined includes 75 English and 110 German verbs with the aforementioned prefixes of the two languages respectively. Since the clause is the crucial unit in Transitivity analysis, in the British National Corpus of English and Wortschatz and Limas corpora of German we have analyzed clauses which contain the verbs from the sample. The section of the sample we shall present here illustrates Transitivity configuration modifications which occur under the impact of verb derivation through prefixation. The clauses from the sample will be analysed in terms of process types in the system of Transitivity we described above, following the schemas for interpreting the semantic roles of clause elements. Semantic modification induced by prefixation is verified by the process type actualized by the derivative, while the differences in configurations indicate the differences in meaning between the base and the derivative.

A) Concrete material processes are transformed into the following process types:

a) abstract material processes:

1) besmirch [DAMAGE THE REPUTATION OF] (En. smirch MAKE DIRTY OR STAINED)
   *This is just the latest in long line of such scandals, which besmirch (PROCESS: ABSTRACT MATERIAL) the country’s financial institutions (GOAL: AFFECTED).*

2) unwrite [OBLITERATE] (En. write USE PEN/PENCIL TO PRODUCE SYMBOLS)
   *Our deeds can mark us but not cleanse us of that mark, for we cannot unwrite (PROCESS: ABSTRACT MATERIAL) the history (GOAL: AFFECTED) we have written with our actions.*

3) anbinden [BIND] (Ger. binden TIE)
   *Der neue Vorstand will den neuen Verein (GOAL: AFFECTED) fest an den sozialpsychiatrischen Dienst anbinden (PROCESS: ABSTRACT MATERIAL).*

4) ausfeilen [IMPROVE] (Ger. feilen POLISH)
   *Ein bißchen muß Damon Albarn sein Junggöttertum (GOAL: AFFECTED) auch noch ausfeilen (PROCESS: ABSTRACT MATERIAL), sonst merkt noch jemand, daß er sich ein wenig auf Kosten der Rest-Band profiliert.*

5) untergraben [UNDERMINE] (Ger. graben DIG)
   *Das ist ein weiterer Beweis dafür, dass in diesem Land das Gesetz (GOAL: AFFECTED) immer mehr untergraben (PROCESS: ABSTRACT MATERIAL) wird.*

The examples illustrate the distinction between the abstract material processes actualized by the derivatives and the concrete material processes actualized by the bases, in both languages. Abstract material processes do not construe a quantum of change as taking place through the input of physical energy, contrary to concrete material processes. Abstract material processes are transformative, as they denote a change in the Goal.

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a derivative with a figurative meaning. The prefix un- is attached to verbal bases to form
derivatives which denote the process of reversal or cancellation of an action or a state; the
derivative unwrite in the example cited takes a Goal of an abstract kind, and denotes the
process of annihilation. The German prefixes an-, aus- and unter- are very productive,
and they are very often added to verbal bases to produce perfective verbal forms. In the
usages illustrated above, the semantic modifications are evident as the bases construe
actions, while the derivatives construe situations.

b) mental processes:

1) bedazzle [CONFUSE] (En. dazzle BLIND)
   *The sheer ingenuity of an opportunity (PHENOMENON) should not bedazzle (PROCESS:
    MENTAL) the entrepreneur (SENSEr) to the extent that he works out the profitability of
    the venture.*

2) outmanoeuvre [OUTWIT] (En. manoeuvre MOVE OR TURN SOMETHING SKILFULLY)
   *Griffin (SENSEr) kills one of his rejects who he suspects of sending him death threats
   (...) but also has the wherewithal to outmanoeuvre (PROCESS: MENTAL) a pretender to
   his throne (PHENOMENON)*

3) aufregen [UPSET] (Ger. regen MOVE)
   *Ein Gefangener, der auf den Erlöser wartet, wird nicht sich und seine Mitgefangenen
   (SENSEr) mit einer falschen Hoffnung betrügen und mit dem Wahn aufregen (PROCESS:
   MENTAL), sie müßten sich selbst erlösen.*

4) zerstreuen [DISMISS] (Ger. streuen SCATTER)
   *Schon um jeden Gedanken an einen Bruch des dringendsten deutschen
   Intimschutzbedürfnisses im Vorfeld zu zerstreuen (PROCESS: MENTAL), kleiden sich auch
   die Bankgebäude (SENSEr) in kalt-distanzierte Eleganz.*

The English and German verbal bases denote changes in the material word which can be
perceived, and therefore actualize material processes. On the other hand, the
derivatives denote processes of cognition and affection. As such, the derivatives construe
a quantum of change in the flow of events impinging on the consciousness or emotions
(Halliday and Matthiessen 2004: 197), and not affecting the matter. Material processes
are process of doing, which are denoted by the bases in all four citations. Mental processes
are denoted by the derivatives, produced in the process of prefixation involving
the prefixes be- and out- in English and auf- and zer- in German. Contrary to material
processes, mental processes involve the experience of a phenomenon in psychological
and emotive terms. Mental processes require that the configuration in the clause should
contain a human Participant, because the Senser must be endowed with consciousness
and use the intellect or emotions in the process.

B) Behavioural processes are transformed into the following types:

a) abstract material processes, the configuration of which involves a Scope:

1) overstep [GO BEYOND WHAT IS PROPER OR ALLOWED] (En. step LIFT AND SET
   DOWN ONE’S FOOT)
   *Did Dr Kelly overstep (PROCESS: ABSTRACT MATERIAL) his authority (SCOPE) by
   talking to Andrew Gilligan.*
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2) überschritten [EXCEED] (Ger. schritten WALK)

Doch klar sei, dass die Hochschule unter den gegenwärtigen Bedingungen ihre räumliche (SCOPE) Kapazitätsgrenze überschritten hat (PROCESS: ABSTRACT MATERIAL).

The bases step and schritten represent the behavioural processes of physical phenomenology, with only one salient Participant. The English derivative with the prefix over- and the German derivative with the prefix über- are abstract material processes, the configuration of which demands a Scope which specifies the action. The Scopes in the clauses are not impacted by the process, but construe the domain over which the process takes place.

b) verbal processes:

1) anklagen [ACCUSE] (Ger. klagen WAIL)

Man kann nicht Menschenrechtsverletzungen (TARGET) in einem Land anklagen (PROCESS: VERBAL) und Flüchtlinge von dort nicht schützen.

2) auslachen [MOCK] (Ger. lachen LAUGH)

Wie bereits in den vergangenen zwei Jahren wollen die Amok-AktivistInnen das Militär (TARGET) schlicht auslachen (PROCESS: VERBAL).

The derivatives we have found in the German sample represent verbal processes of judging – the verb anklagen denotes criticizing/blaming and the verb auslachen denotes ridiculing. Such processes belong to targeting, the configuration of which requires a Target as the object of criticism. The bases klagen and lachen, on the other hand, realize behavioral processes of a physiological kind, which do not allow for two Participants.

c) mental process:

1) overlook [IGNORE] (En. look DIRECT ONE’S EYES)

Editor (SENSER) Malcolm Barker agreed to overlook (PROCESS: MENTAL) the qualification requirement (PHENOMENON).

2) aussitzen [DISREGARD] (Ger. sitzen SIT)

Die (SENSER) wollen das Thema (PHENOMENON) so lange aussitzen (PROCESS: MENTAL), bis es vergessen wird.

The derivatives we have found in the German sample represent mental processes of cognition, and require a conscious and willing Participant in the role of Senser (editor, die). In processes of sensing, the Participant is a conscious being engaged in conscious processing. The other Participant, the Phenomenon (the qualification requirement; das Thema), enters into the consciousness of the Senser. The Phenomenon in both examples represents something which is not taken notice of or acknowledged. The bases Eng. look and Ger. sitzen represent behavioural processes i.e. physiological processes involving a biological organism.

C) The sample contains instances of the redistribution of semantic roles in the two types of relational processes, as in the following:

1) outweigh [BE OF GREATER IMPORTANCE]

If the social benefits (IDENTIFIED) outweigh (PROCESS: RELATIONAL) the social costs (IDENTIFIER), the constraint involved will be worthwhile.
weigh [HAVE A WEIGHT OF]
It (CARRIER) weighs (PROCESS: RELATIONAL) nearly 27 kilos (ATTRIBUTE).

2) outmatch [BE SUPERIOR TO]
The training colleges of the London County Council (IDENTIFIED) might outmatch (PROCESS: RELATIONAL) those under religious control (IDENTIFIER).

match [CORRESPOND]
It is not necessarily the case that the responsibility structure (CARRIER) matches (PROCESS: RELATIONAL) the program structure (ATTRIBUTE).

3) erscheinen [APPEAR]
Das Elend in Afrika (IDENTIFIER) lässt unsere wirtschaftlichen Probleme in Europa (IDENTIFIED) ziemlich belanglos erscheinen (PROCESS: RELATIONAL).
scheinen [LOOK]
Die sozialen wie ökonomischen Folgen des Alterns (CARRIER) scheinen (PROCESS: RELATIONAL) unberechenbar (ATTRIBUTE) und so wächst die Angst.

The clauses which contain the bases (Eng. weigh, match; Ger. scheinen) construing ascriptive relational processes require two Participants, the Carrier, which carries the attribute, and the Attribute, ascribed to the Carrier. To an extent, the Attribute is conflated with the Process. On the other hand, the derivatives (Eng. outweigh, outmatch; Ger. erscheinen) construe identifying relational processes, in which one entity is used to identify another; the configuration accordingly requires the Identified and the Identifier. The differences between the two configurations of roles rest on the nature of the processes. Namely, the bases represent states in which the Attribute exists at the same time as the process, whereas the derivatives represent the processes in which the correlation between the Identified and the Identifier is a symbolic one.

3. DISCUSSION AND CONCLUSIONS

We have dealt with a system of lexicogrammatical resources at the level of the clause as representation in English and German. The system is concerned with the representation of experience, and it is the component of lexicogrammar through which our experience of reality is represented in language. The experience is modelled as a configuration of semantic roles within the clause, in which the components play distinctive roles in relation to one another and in the process as a whole. The analysis of the sample above suggests that semantic modifications in verb derivation produce transformations in process types and subsequent transformations in the configurations of semantic roles. Verb choice affects the whole of the clause structure, i.e. the total configuration of functions whose structural associations realize the meaning.

The sample examined indicates the following:

a) prefixation in instances such as those discussed above entails semantic modifications with the bases which construe concrete material processes and behavioural processes;

b) the derivatives typically have figurative meaning and construe abstract material processes or mental processes;

c) the modification of the configurations of relational processes entails a redistribution of semantic roles in cases when attributive relational clauses, through which an entity is
characterized by another, are transformed into identifying relational clauses, in which an entity is symbolically correlated to another. Semantic differences between the bases and the derivatives imply differences in process types. The verbs of concrete material processes betoken actions, in which Actors carry out actions on Goals, or a quantum of change construed as a change in a characteristic of one of the Participants. On the other hand, the verbs of abstract material processes represent situations, in which activities and changes are harder to discern than with concrete material processes. Mental processes do not represent actions either, but depict our mental contact with the world, and construe the inner experience of what is going on in the world of consciousness. The sample includes instances in which behavioral processes are transformed into verbal processes – the former are processes of consciousness represented as forms of behavior or physiological processes manifesting states of consciousness, while the latter are symbolic relationships enacted in the form of language. As far as prefixes are concerned, following the idea in Plag (2003: 124) that the vast majority of prefixes do not change the syntactic category of their base words, but merely act as modifiers, the sample suggests that certain class-maintaining prefixes, such as those explored in our English and German samples, trigger modifications of both the formal and semantic kind.

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GLAGOLSKE IZVEDENICE I TIPOVI PROCESA
U KONFIGURACIJAMA TRANZITIVNOSTI
ENGLESKIH I NEMAČKIH REČENICA

U rečenici kao prikazu iskustva razmotrićemo sistemsko-funkcionalni pojam leksikogramatike tako što ćemo ispitati vezu između gramatike i leksike u engleskim i nemačkim rečenicama. Posmatraćemo engleske i nemačke glagole i njihove odgovarajuće derivacione parove, čija tvorba putem prefiksacije podrazumeva i semantičku modifikaciju osnove, a koja stoga zahteva i drugačiju konfiguraciju semantičkih uloga u rečeničnom kontekstu. Zamisao da je leksikogramatika srž kazivanja u rečenici ispituje se u odnosu na morfološki zasnovanoj semantičkoj modifikaciji koja kao rezultat ima promenu strukture transzitivnosti u rečenici, jer su vrste procesa različite kod glagolskih osnova i glagolskih izvedenica.

Ključne reči: leksikogramatika, proces, rečenica, prefiksacija, sistem transzitivnosti