PSYCH NOMINALIZATIONS IN ENGLISH AND IN GERMAN

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Nominalizări psihologice în engleză şi germană (Rezumat)

Lucrarea este o analiză contrastivă a proprietăților structurii de argument a nominalelor psihologice în două limbi înrudite: engleza şi germana. Se porneşte de la două studii asupra interpretării structurii de argument a nominalelor deverbale (Grimshaw, 1990) şi asupra derivării lor sintactice (Pesetsky, 1995). Articolul urmăreşte să verifice în ce măsură aceste propuneri sunt confirmate de datele din aria nominalelor psihologice în limba germană.

The inheritance of argument structure has been studied extensively with respect to derived nominals. The general issue is whether derived nominals show in their ability to take arguments any systematic relation with their related verb or whether their behaviour is chaotic. Recent literature on the topic has provided a better understanding of the structure and meaning of transitive nominalizations and has brought to attention the specific properties of psych nominals in English.

This paper will be an attempt at outlining a contrastive analysis of the inheritance properties of psych nominals in two related languages, English and German. We rely on two important contributions to the study of psychological nominalizations concerned with the interpretation of the argument structure of deverbal nominals (Grimshaw, 1990) and with the formulation of a hypothesis for their derivation (Pesetsky, 1995) and we will see to what extent these proposals are supported by data from the field of German psych nominals.

The first part will present some word order facts noticeable at the level of the simple clauses containing psych verbs and in their corresponding nominalizations. The second part will support the event vs. result distinction in the interpretation of psych nominals in both languages. For the sake of simplicity, where possible, we give German equivalents for the English examples of Subject Experiencer and Object Experiencer verbs (hence SubjExp and ObjExp) in their agentive or non-agentive use and their related nominals.

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Word order facts in verbal and nominal structures

Psych verbs were traditionally included among transitives on the basis of the fact that they express a relationship between two arguments. However, a closer look at their behaviour reveals the fact that their thematic structure is different from that of the transitive verbs:

The enemy destroyed the city
AGENT THEME
The refugees constantly fear attacks.
EXPERIENCER THEME
The reporters/ the comments annoyed the rock singer
THEME EXPERIENCER

Both psych verbs assign the thematic roles of Experiencer and Theme, however with the verb *fear* the Experiencer is linked to the Su position and the Theme to the Object position (as expected according to UTAH), but with the verb *annoy*, the Theme is assigned to the Subject position.

If we compare psych verbs in English to those in German, we will notice that the SubjExp verb *fear* (*fürchten*), and the ObjExp verbs *annoy* (roughly *ärgern*) and *amaze* (*begeistern*) are used in clauses with a similar constituent structure. However, the distinction between these two groups of verbs lies in the different type of Subject they have: agentive for *fear* (*fürchten*) and *annoy* (*ärgern*) and non-agentive, causative for *amazed (begeistern)*:

The refugees fear attacks.
Die Flüchtlinge fürchten Angriffe

Teenagers annoy their parents.
Die Jungs ärgern ihre Eltern.

His rapid recovery amazed the doctors.
Seine schnelle Besserung begeisterte die Ärzte.

Besides these two-place predicates, in German there is another verbal pattern, the reflexive SubjExp verbs corresponding to the ObjExp verbs which take an obligatory idiosyncratic preposition:

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(3) Die Flüchtlinge fürchten sich vor Angriffen
Die Eltern ärgern sich über ihre Jungs
Die Ärzte begeistern sich über seine schnelle Besserung.

In English, nominalizations related to these verbs evince certain irregularities from the expected word order. Non-agentive SubjExp verbs do not nominalize according to the expected pattern: the subject in the genitive phrase and the object in an *of*-phrase.

(4) The refugees' fear of attacks
?Teenagers' annoyance of their parents
*His rapid recovery's amazement of the doctors

In German, nominalizations from the verbs in (2) yield ungrammatical results. It seems that the pattern established for English nominalizations with the word order: subject + nominal + object, does not apply to the German equivalents:

(5) *Die Furcht der Flüchtlinge der Angriffe
*Der Ärger der Jungs der Eltern
*Die Begeisterung seiner schnellen Besserung der Ärzte

Only nominalizations from the reflexive verbs in (3) are clearly grammatical. In contrast to the English objects typically introduced by the preposition *of*, the reflexive verbs and their derived nominals select the same typical preposition: *über, vor*, etc.

(6) Die Furcht der Flüchtlinge vor Angriffen
Der Ärger der Eltern über ihre Jungs
Die Begeisterung der Ärzte über seine schnelle Besserung

Nominalizations which contain only the nominal and the object are fine for all types of nominals in English, i.e. the absence of the Subject in prenominal position renders the nominalization with *amazement* correct:

(7) The fear of attacks

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The annoyance of the parents
The amazement of the doctors

Similarly German allows subjectless nominalizations with all types of psych nominals:

(8) Die Furcht vor Angriffen
Der Ärger über die Jungs
Die Begeisterung über seine schnelle Besserung

At first sight, this situation seems to falsify the claim that the argument structure of the verb is inherited by the derived nominal. However, we will attempt to make sense of the facts noticed above by analysing in further detail the phrases which appear in construction with the nominals.

The Genitive Phrase

Genitive NPs in nominals such as those in (4) and (6) have a subjectlike interpretation in that they seem to correspond to the subject of the matching active verbal predicates. However, the subject of a nominal is systematically optional as in (7) and (8) as opposed to the subject of a verb which is completely obligatory as in (1), (2) and (3). Grimshaw argues that genitive NPs in nominals are neither arguments, nor adjuncts. They have an intermediate status, that of argument adjuncts and are therefore optional.

The position of the possessive NP is prenominal in English as in (4) and postnominal in German as in (6). With common nouns, there is only one position available for the genitive case in German – the postnominal one:

(9) Die Arbeiter sind über die Entlassungen empört
Die Empörung der Arbeiter über die Entlassungen
'the agitation/ indignation of the workers about the layoffs'

Nevertheless, when a proper noun is used as a possessive NP, there are two alternative positions, either before or after the nominal:

(10) Maria ärgert sich über die Ergebnisse
Der Ärger Marias über die Ergebnisse
Marias Ärger über die Ergebnisse

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"Mary's anger at the results"

Furthermore, we notice that the proper noun *Maria* in prenominal position cannot co-occur with the determiner in German, which supports the idea that the proper noun is actually occupying the determiner position:

(11) *Der Marias Ärger über die Ergebnisse
* 'The Mary's anger at the results'

The prenominal DP is restricted semantically as well as morpho-syntactically, the reason for this being a language change which is presently taking place. While no semantic restrictions were known on the choice of the prenominal genitive in Modern High German, nowadays one finds almost only proper nouns or nouns similar to proper nouns (*Vater, Mutter*) in prenominal position. Naming persons other than by the use of proper nouns sounds rather odd:

(12) *der Arbeiter Entlassungen
'of-the-workers layoffs'

Actually the true prenominal genitive case is being gradually replaced by a prepositional phrase (von-phrase) or by the postnominal genitive:

(13) Die Entlassungen von den Arbeitern
'the layoffs from workers'
Die Entlassungen der Arbeiter
'the layoffs of the workers'

The Object Phrase

Argument-taking nouns have the same kind of a-structure representation as verbs, however, they cannot directy accept arguments because they are defective theta-markers. The consequence is that nouns can take arguments only through the mediation of a preposition. Thus in English the Object is typically introduced by the preposition *of* and it appears in postnominal position as in (7).

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In contrast psych nominals in German take a specific preposition in order to realize the internal argument, which is identical with that selected by the corresponding SubjExp reflexive verb:

(14)

sich ängstigen vor/um +A	die Angst vor + D	'fear'
sich ärgern über + A	der Ärger über + A	'annoyance'
sich begeistern über + A	die Begeisterung über + A	enthusiasm'
sich empören über + A	die Empörung über + A	'indignation'
sich erregen über + A	das Erregen über + A	'excitement'
sich fürchten vor + A	die Furcht vor + D	'fear'
sich kümmern um + A	der Kummer um + A	'worry, concern'

Whether they occur with verbs, nominals or even adjectives, the idiosyncratic prepositions assign the same cases: *vor* always dative, *über* and *um* always accusative to the nouns following them. In all instances the PPs headed by the idiosyncratic prepositions have the same thematic role: Theme. The verb (or the nominal) makes the role available, and the preposition transfers it to the NP, the preposition acting to transmit a theta role from the verb (or the nominal) to the NP. The fact that verbs, nouns and adjectives in German are able to select obligatory idiosyncratic prepositions which assign specific cases to the NPs following them is well-documented in the literature under the heading of 'Rektion' ('*government*'). It is therefore reasonable to believe that Case-assignment properties are responsible for the differences noticed between nouns and verbs in the two languages. To take direct NP arguments as in (1) and (2), the head must be able to assign case to the argument. So the fact that verbs can, and nouns cannot not take direct arguments as in (4) and (6), could be a function of their case-theoretic status: verbs have, nouns lack the capacity to assign case directl. Moreover, the two alternative positions of the genitive phrase in (10) can be easily accounted for in terms of the directionality parameter: in German genitive case may be assigned both to the left and to the right of the case-assigning head.

Starting from the choice of fixed prepositions in (3) and (6), it seems reasonable to assume that psych nominals in German are derived from the reflexive verbs, not from the corresponding non-reflexive pairs in (2). However, only some of the ObjExp verbs have reflexive counterparts:

(15)

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ängstigen	sich ängstigen	'*be afraid*'
ärgern	sich ärgern	'*become angry*'
aufheitern	such aufheitern	'*be glad*'
begeistern	sich begeistern	'*be enthusiastic*'
empören	sich empören	'*be indignant*'
erregen	sich erregen	'*be excited*'
erschrecken	sich erschrecken	'*be scared*'
kümmern	sich kümmern	'*be worried*'

Other ObjExp verbs do not have such reflexive pairs, which would apparently leave their related nominals without a source of derivation:

(16)	*aufmuntern*	*Aufmunterung*	'*gaiety*'
	belustigen	*Belustigung*	'*amusement*'
	beunruhigen	*Beunruhigung*	'*diquieting*'
	entsetzen	*Entsetzen*	'*fright*'
	erbittern	*Erbitterung*	'*embitterment*'
	erheitern	*Erheiterung*	'*enjoyment*'
	ermuntern	*Ermunterung*	'*gaiety*'
	erstaunen	*Erstaunen*	'*astonishment*'

This points to the fact that there are gaps in the lexicon among verbs, though not as many as in English, a language with very few reflexives. Pesetsky (1995) argued that in languages like French and Russian the derivation proceeds from reflexive to non-reflexive. The reflexive verbs are involved in the derivation of non-reflexive verbs and in nominalizations. In the process of derivation the reflexive disappears. This hypothesis actually provides a common ground for the derivation of psych nominals in all languages.

His proposal for the derivation of ObjExp verbs in English follows a similar pattern: SubjExp verbal roots are the source of derivation for verbs and corresponding nominals. He suggests that ObjExp verbs are derived from SubjExp verbal roots to which a zero CAUS morpheme is added:

(17) [[[√annoy $_{V}$] CAUS $_{V}$] O $_{inflec}$] ObjExp: 'annoy'

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When dealing with nominalizations of these verbs, he adduces evidence that a*gitation, annoyance, amusement* and *surprise* are <u>not</u> nominalizations of causative predicates*: agitate, annoy, amuse, surprise*. They do not suggest the 'process of making annoyed', but 'the state of being annoyed', 'the state of being amused'. The idea of causation is completely absent. These are nouns morphologically derived from morphemes pronounced √*agitate,* √*annoy,* and √*surprise,* which are roots of non-causative SubjExp predicates:

(18) [[[√annoy $_{V}$] ance $_{N}$] O $_{inflec}$] 'annoyance'

Thus Pesetsky uniformly derives both Obj Exp verbs and their related nominals from Subj Exp verbal roots. If we assume the same type of analysis for Obj Exp verbs and nominals in German, then the semantically causative verb *ärgern* will be analyzed as derived from the reflexive verb *sich ärgern* 'be angry' and the verb *schrecken*, for which there is no reflexive counterpart available in the lexicon, will be derived from the verbal root √*schreck* meaning 'be/become scared' to which a null causative affix CAUS is added:

(19)

[[[√schreck $_{V}$] CAUS $_{V}$] -en $_{inflec}$]	ObjExp verb: 'schrecken'
[[[√lähm $_{V}$] CAUS $_{V}$] -en $_{inflec}$]	Obj Exp verb: 'lähmen'

By analogy, nominals related to ObjExp verbs are derived either from the reflexive pair verb or, when there is no reflexive verb at hand, from the corresponding SubjExp verbal roots:

(20)

[[[√schreck $_{V}$] -en $_{N}$] O $_{inflec}$]	'Schrecken'
[[[√lähm $_{V}$] -ung $_{N}$] O $_{inflec}$]	'Lähmung'

Pesetsky notices that there are no causative nominalizations related to any of the Obj Exp verbs in English (with the possible exception of *embitterment* in which the prefix *em-* has a causative meaning.)

(21) *The exam's continual agitation of Bill was silly.
*Our constant annoyance of Mary got on our nerves.

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Besides there seem to be few verbs in German that can have only non-agentive uses:

(22)

erbittern	die Erbitterung	'embitterment'
erschüttern	die Erschütterung	'shocking'
lähmen	die Lähmung	'stunning'

(23)

a. Das verlorene Spiel erbittert die Mannschaft
'the lost match embittered the team'

Die Erbitterung der Mannschaft über das verlorene Spiel
'the embitterment of the team about the lost match'

b. Der Tod seines Hundes erschütterte den Jungen
'the death of the dog shocked the young man'

Die Erschütterung des Jungen durch den Tod des Hundes
'the shock of the young man at the death of the dog'

c. Der Schrei lähmte die Zuschauer
'the cry stunned the audience'

Die Lähmung der Zuschauer durch den Schrei
'the stunning of the audience by / at the cry'

If we are right in extending Pesetsky' bimorphemic analysis of causative ObjExp verbs to some similar verbs in German, then it seems that we have two sources of derivation for causation and nominalization: reflexive verbs and verbal roots. However, since both sources essentially belong to the SubjExp verbal type, and since there are similar cross-linguistic facts connected with reflexivisation and nominalization, we have reason to believe that the analysis above would be a convenient way of accounting uniformly for word order facts in English and German psych nominalizations.

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2. Event vs. result psych nominals

The lexico-semantic representation of a predicate contains a set of arguments and a specification of their thematic and causal status. Grimshaw argues that argument structure is actually structured by relations of prominence along two dimensions: the thematic hierarchy and the causal hierarchy. The argument which is most prominent on both dimensions is the external argument. According to her theory nominalization means the suppression of the external argument. As a consequence all verbs that have an external argument available for suppression will nominalize.

She interprets the argument structure for two classes of psych verbs: the *fear* class and the *frighten* class (with causative or agentive uses).

(24)

Psychological state	(Exp (Theme))
	1 2
Psychological causative	(Exp (Theme))
	2 1
Agentive psychological causative	(Agent (Exp))
	1 2

Thus for the *fear* verbs, the Experiencer is maximally prominent both thematically and aspectually. As a result they have an external argument to be suppressed in nominalizations. Therefore such verbs are expected to have argument-taking nominals:

(25) The refugees' fear of attacks

For the *frighten* class, however, the Experiencer is not the aspectually most prominent argument; the Theme is. Hence, there is a mismatch between the results of the aspectual and thematic analyses. Since such verbs do not have an external argument, the prediction is that they should not undergo nominalization:

(26) The situation embarrassed the parents.
*The situation's embarrassment of the parents

Since the argument *the situation* is most prominent only along the causal hierarchy but not along the thematic hierarchy, *the situation* cannot be an

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external argument. However an agentive counterpart of the same verb will have a representation in which the two dimensions are perfectly aligned.

(27) John embarrassed his parents
John's embarrassment of his parents

Though non-agentive psych verbs cannot have an argument-taking nominal they may have result nominals of the type:

(28) The parents' embarrassment

In other words, nominalizations of the *frighten* class will have either a result interpretation or an agentive one.
However, sometimes psych nominals may be ambiguous between a result reading and an event (or agentive process) reading. The NP can be disambiguated by applying some of the tests devised by Grimshaw (1990) to diagnose eventhood. Aspectual modifiers such as *frequent* and *constant* expressing continuation of an action can occur with nominals like: *agitation*, *fear*, *annoyance* or *amusement* only when these nominals have an event structure:

(29) John's continual agitation about his promotion
The refugee's constant fear of bombs
Our neighbour's constant annoyance at us
Gloria's frequent amusement at the words uttered by the toddler

The same aspectual modifiers in German: *stetig*, *konstant* and *häufig* inserted in nominalizations of psych predicates disambiguate the nominals *Aufregung*, *Ärger* and *Erheiterung* in the direction of an event reading:

(30) Die stetige Aufregung der Studenten über die Prüfungen ist umsonst.
'the continual excitement/agitation of students about the exams is useless'

Der konstante Ärger des Lehrers über die schlechten Noten macht uns traurig.

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'The constant anger of the teacher about the poor grades upsets us.'

Die häufige Erheiterung der Dorfbewohner über den Faulenzer
'The frequent enjoyment of the villagers about the laziest (man)'

When used with a generic meaning, psych nominals behave like mass nouns in not taking a definite determiner as in Pesetsky's examples (200) repeated here as (30) for which the German equivalents in (31) build up a perfect analogy:

(31) Agitation about exams is silly.
Annoyance at one's teacher should be suppressed.
Amusement at the misfortunes of another is a sign of poor character.

(32) Aufregung über Prüfungen ist umsonst.
'Agitation about exams is useless'

Ärger über Lehrer soll aufgehoben werden.
'irritation about teachers should be suppressed'

Erheiterung über die Verdrüsse der anderen soll vermeidet werden.
'amusement at the misfortunes of the others should be avoided'

Psych nominals with event readings resist pluralization in both languages. No well-formed nominalization can occur with the plural marker, a restriction which is specified in the lexicon for the nouns *die Aufregung, der Ärger* and *die Erheiterung*:

(33) *The agitations about exams are silly.
*Annoyances at one's teacher should be suppressed.
*Those amusements at Sue's mistakes were uncalled for.

(34) *Die Aufregungen der Studenten über die Prüfungen sind umsonst.
'The agitations of the students about the exams are useless'

*Die Ärger über die Lehrer sollen aufgehoben werden.
'the irritations about the teachers should be suppressed'

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*Die Erheiterungen über die Fehler der Schüler haben sie geärgert.
'the amusements about the mistakes of the students made them angry'

Very rarely an Agent-oriented adjective such as: *deliberate* 'absichtlich' may be inserted in the nominalization. Such an adjective makes the possessive necessarily agentive:

(35) Young people of the 60's deliberately scorned regular careers.
The young people's deliberate scorn of regular careers…

(36) Der Karikaturist spottet die falsche Verhaltensweise absichtlich
Der absichtliche Spott des Karikaturisten über die falsche Verhaltensweise
'the deliberate scorn of the cartoonist at the wrong behaviour..'

Psych nominalizations have infrequent result uses, i.e. they take an indefinite determiner, pluralize or are used predicatively (Pesetsky's (202) as given below):

(37) The broken elevator was at best a minor annoyance.
Sally didn't interfere with Bill's amusements.
Talking to John was a real pleasure.

Result readings of psych nominals in German are signaled by the use of the indefinite determiner (38 b), the plural markers and the occurrence in predicative patterns (38 a):

(38) a. Diese sind seine grossen finanziellen Sorgen
'These are his great financial worries'

b. Das Ankommen der Königin verursachte eine grosse Aufregung unter den Zuschauern.
'The arrival of the Queen caused a great excitement amongthe lookers-on'

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It is interesting to note that few argument-taking psych nominals in German have corresponding result pairs which are specified in the lexicon for a plural usage and which have a definite article of a different gender than the argument-taking nominal:

(39)
das Vergnügen (sg) 'the delight' die Vergnügungen (pl) 'the delights'
der Ärger (sg) 'the anger' das Ärgernis, -sse 'the anger, angers'
der Kummer(sg)'the worry/concern'das Kümmernis,-sse'theconcern, concerns'

(40) Die Ärgernisse, auf die man im Berufsleben trifft…
'the vexations that one suffers at one's job..'

Die grossen und kleinen Kümmernisee des Lebens …
'the great and the little worries of life..'

A careful examination of the behaviour of psych nominals, item by item, will certainly reveal irregularities which will have to be accounted for. Nevertheless the examples above support the idea that psych nominals show noticeable parallels to their underlying verbs with respect to the realization of their argument-structure in both languages.

Conclusion

The analysis of word order facts has shown that nominals typically project their arguments in the expected position: the subject in the prenominal position and the object in a postnominal position, except for person names in genitive phrases which are allowed in both positions due to the specific case-assigning properties of the head noun in German.

As far as the derivation of psych nominals is concerned, we believe, on the basis of the empiric evidence and drawing on the research on derived nominals, that the derivation of ObjExp verbs and their nominals relies on essentially the same source: verbs or verbal roots of the SubjExp type. In both languages agentive psych verbs have event (or agentive process) nominals as shown by the similarities revealed through the diagnostic tests. Only non-agentive ObjExp verbs yield result nominals. The parallel between English and German nominalizations has also brought to attention certain dissimilarities,

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which to a great extent, can be accounted for in terms of the presence vs. absence of reflexive counterparts for the psych verbs.

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