

German psych-adjectives

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1. Introduction

The language inventory contains predicates that refer to mental or emotional concepts for the communication of a person's feelings and attitudes. The involved individual is an emotionally or mentally active experiencer, in contrast to the agent of an observable action. These so-called psychological predicates (psych-predicates) have been an important topic in theoretical syntax for several decades (Belletti and Rizzi 1988, Grimshaw 1990, Croft 1993, Pesetsky 1995, Landau 2010, among others). The literature and theory focus on psych-*verbs* almost exclusively. In German, as in many other languages, a group of emotion-related adjectives (psych-adjectives) constitutes a subclass of the psych-predicate class. Consider the following German examples in (1).

- (1) *traurig* 'sad', *wütend* 'angry', *gelangweilt* 'bored', *peinlich* 'embarrassing', *ängstlich* 'anxious', *bewusst* 'aware', *zufrieden* 'pleased', *böse* 'mad', *gleichgültig* 'indifferent, blasé', *verhasst* 'abhorred', *zuwider* 'abhorrent'

Although psych-adjectives are just as semantically coherent as the corresponding class of verbs (i.e., their reference to emotional states), they are generally not part of the main discussion about the grounding structure of psychological predicates. Exceptions are Bennis (2000, 2004) and Landau (2006), who focus on structural properties of different adjective classes, as well as Bouillon (1996), Goy (2000), and Jackendoff (2007), who analyse the lexical-semantic base of emotional adjectives in French, Italian, and English, respectively. Additionally, for psych-adjectives in German there is a short syntactic discussion in Gallmann (1992).

In general, psych-*verbs* are known to have a special status within the grammatical system of a language. They show great structural variety and properties which distinguish them from non-psychological structures. The most prominent observation in the literature is the inconsistent case assignment of experiencer arguments in contrast to regularly nominative-marked agentive arguments. For Italian, Belletti and Rizzi (1988) identified three classes of psychological verbs. Class I and II are transitive verbs with the experiencer marked with either the nominative or the accusative case, illustrated in (2) and (3), respectively. Class III consists of intransitive verbs with a periphrastic dative experiencer, as in (4). In German, the Class III experiencers are morphologically dative marked.

- (2) Class I
Gianni. teme questo.
Gianni.NOM fears this.ACC (Belletti and Rizzi 1988: 291–292)

- (3) Class II
Questo preoccupa Gianni.
this.NOM worries Gianni.ACC (ibid.)

- (4) Class III
A Gianni piace questo.
to Gianni.OBL pleases this.NOM (ibid.)

According to the literature, psych-verbs often exhibit additional irregular behaviour compared to what is generally referred to as “canonical” verbs. In languages like German, Italian, or English, psych-verbs license word orders or binding relations that are not possible for non-psych-verbs (see Landau 2010 for an overview of the psych-effects). The special status of psych-verbs is well-documented within and across many languages.¹

¹ One finds, for example, investigations regarding psych-effects for Chinese (Chen 1995), English (Pesetsky 1987), Finnish (Pylkkänen 1997), German (Klein and Kutscher 2002), Greek (Anagnostopoulou 1999, Verhoeven 2008, 2009), Hungarian (Rákosi 2006), Italian (Belletti and Rizzi 1988, Arad 1998), Korean (Kim and Larson 1989), Yucatec Maya

In view of the above facts, the main goal of the paper is to present novel insights on psych-predicates by extending them to psych-adjectives. I will show that the special status of psych-verbs can to some extent also be attested for psych-adjectives, since they show similar structural variation and exhibit psych-effects distinguishing them from non-psych-adjectives.

The paper is organised as follows. In section 2, the term *psych-adjectives* will be introduced for a special class of predicates in German by underlining the parallel behaviour of psych-adjectives and psych-verbs. In section 3, I discuss the argument structural properties, especially the status and contribution of the experiencer dative. The data lead to the assumption that the varying experiencer markings of German psych-adjectives can be ascribed to diverging semantic bases. In section 4, I strengthen this point with the help of supporting data from inside and outside the German language. The basic idea is that adjectival structures which realise the experiencer as an object build a special definable class of psych-predicates. In contrast to subject experiencers, such expressions contain an additional evaluative component. Section 5 will conclude.

2. Adjectives as psych-predicates

At the thematic level, psych-verbs are often defined as experiencer(EXP)-selecting predicates, since their meaning necessarily includes a sentient individual. We can adopt Landau's (1999) definition for the corresponding adjectives:

[...] a predicate is psychological if and only if it follows from the truth of the minimal proposition in which it occurs that some argument of the predicate is an experiencer, i.e. an individual in a certain mental state. (Landau 1999: 1)

The experiencer role is one of the established thematic roles. It refers and is restricted to mentally or emotionally involved individuals being aware of the expressed state or event. Together with the stimulus role (STIM), the assumed counterpart to the experiencer role, there is a relation comparable to the agent-patient-pair.

As was seen in the last section, the involved roles show inhomogeneous case markings. Both participants can be realised as a subject or as an object of a predicate. Thus, parallel to psych-verbs, psych-adjectives exhibit different functional patterns. Compare the structures in (5) and (6).

- (5) Der Vater_{EXP} ist dem Lehrer_{STIM} böse.
the father.NOM is the teacher.DAT angry
'The father is angry with the teacher.'
- (6) Der Vater_{STIM} ist dem Lehrer_{EXP} wichtig.
the father.NOM is the teacher.DAT important
'The father is important to the teacher.'

The examples show that in the case of adjectives, one can also differentiate between subject- (SE) and object-experiencer (OE) predicates.² Thus, either the subject or the object carries the feeling expressed by the adjectival psych-predicate. In contrast to verbs, however, adjectives do not allow accusative objects.³

Furthermore, the above examples show that German psych-adjectives can occur in complex structures with the experiencer or the stimulus as a dative object NP, which makes them relevant to category-specific argument structural observations as well. Languages that cannot realise the object experiencer as a dative NP can alternatively use prepositional phrases to make it explicit (see (7) for English and (8) for Dutch).

- (7) He is important/known/serious to him.
- (8) Dat is pijnlijk/moeilijk/interessant for Jan.
'That is embarrassing/difficult/interesting for John.' (Bennis 2000: 28)

Thus, there is evidence for a varying relation between a stimulus and an experiencer role in the adjectival domain. The pattern is also documented for French (Bouillon 1996, Anscombe 2004), Italian (Goy 2000), Polish (Rozwadowska and Klimek 2004) and typologically unrelated languages, e.g. Hungarian (Rákosi 2006), Japanese (Căluianu 1996) and Korean (Kim 2008). One expects that the list of languages exhibiting psych-adjectives can be extended. It is relevant to analyse them from various perspectives by identifying their properties both as

(Verhoeven 2007), and a comparison of German, Turkish, Basque, and Estonian by Kutscher (2009), among many other languages and authors.

² These terms, taken from Landau (2006), are used parallel to the psych-verb distinction.

³ The missing accusative is generally attributed to the ergativity of adjectives (Haider 1985: 86; Haman 1991).

predicates of the psych-class and as a subcategory of adjectives. In German, it is possible to identify several adjectives belonging to the psych-class; see (9) and (10) for (non-exhaustive) lists of common German SE and OE adjectives. Note that most of the adjectives that allow a dative NP in German are psych-adjectives. Some exceptions to this generalisation are listed in (11), in which the dative reflects dative-related roles like goal, possessor, benefactive, or the typical object role theme.

(9) SE adjectives:

abgeneigt ‘be averse’, *böse* ‘angry’, *dankbar* ‘thankful’, *froh* ‘glad’, *glücklich* ‘happy’, *nervös* ‘nervous’, *optimistisch* ‘optimistic’, *sauer* ‘angry’, *stolz* ‘proud’, *traurig* ‘sad’, *unsicher* ‘uncertain’, *verbunden* ‘connected’, *verfallen* ‘addicted’, *wütend* ‘angry’, *zugänglich* ‘accessible’, *zugetan* ‘be attached’

(10) OE adjectives:

(*un*)*angenehm* ‘(un)⁴pleasant’, (*un*)*begreiflich* ‘believable, comprehensible’, (*un*)*bekannt* ‘known’, *bewusst* ‘aware’, *egal* ‘doesn’t matter’, *einerlei* ‘doesn’t matter’, *ernst* ‘serious’, *fremd* ‘alien, strange’, *gegenwärtig* ‘present’, *geheuer* ‘fishy’, *gleich* ‘doesn’t matter’, (*un*)*klar* ‘clear’, *lästig* ‘annoying’, *lieb* ‘beloved’, *neu* ‘new’, *peinlich* ‘embarrassing’, *recht* ‘right’, (*un*)*sympathisch* ‘likeable’, *unerklärlich* ‘unexplainable’, *unheimlich* ‘eerie’, (*un*)*wohl* ‘awkward’, *verhasst* ‘abhorred’, (*un*)*verständlich* ‘understandable’, *vertraut* ‘familiar’, (*un*)*wichtig* ‘important’, *willkommen* ‘welcome’, *zutraglich* ‘conductive’, *zuwider* ‘abhorrent’

(11) *ähnlich* ‘similar’, *angeboren* ‘innate’, *behilflich* ‘helpful’, *eigen* ‘innate, idiosyncratic’, *gewachsen* ‘be a match for so.’, *hörig* ‘be a slave to so.’, *sicher* ‘assured’, *unterlegen* ‘inferior’, *voraus* ‘ahead’

Further evidence for the verb-adjective parallelism in the psych-domain can be gained by testing psych-effects for both subclasses, i.e., to find effects that occur especially with psych-predicates. In German, for example, there are special word order conditions for psych-verbs. Although German generally has a scrambling/topicalisation option that allows for a mostly free word order in the middlefield and the free positioning of elements in the prefield, there is a clear difference between the SO and the OS order of a simple SOV sentence in the canonical transitive structure, as illustrated in (12). Compared to the SO order in (12a), the structure exhibiting object fronting in (12b) is non-canonical in that it needs a certain contextual and intonational structure to be licensed (and is therefore marked with #).⁵ The subject-experiencer sentences containing Class I psych-verbs show the same word order conditions, as shown in (13). For examples (12) and (13), assume that the sentences are embedded in an all-new conversational context like “What happened?” or “What’s going on?”.

(12) a. Ich glaube, dass die Chefin den Hausmeister schlägt.
I believe that the boss.NOM the janitor.ACC hits
‘I believe that the boss hits the janitor.’

b. # Ich glaube, dass den Hausmeister die Chefin schlägt.
I believe that the janitor.ACC the boss.NOM hits

(13) a. Ich glaube, dass die Chefin den Hausmeister mag.
I believe that the boss.NOM the janitor.ACC likes
‘I believe that the boss likes the janitor.’

b. # Ich glaube, dass den Hausmeister die Chefin mag.
I believe that the janitor.ACC the boss.NOM likes

An exception to the markedness effect are OE sentences. Both orderings provide possible structures without special contextual requirements, as in (14).

(14) a. Ich glaube, dass die Chefin den Hausmeister interessiert.
I believe that the boss.NOM the janitor.ACC be.interested
‘I believe that the janitor is interested in the boss.’

b. Ich glaube, dass den Hausmeister die Chefin interessiert.
I believe that the janitor.ACC the boss.NOM be.interested

⁴ The translation holds for all the following examples with the German negation prefix marked by ‘(un)-’.

⁵ A sentence like (12b) is not per se ungrammatical. For example, it can be licensed by a context question like “Who hits the boss?” and a narrow focus intonation on the subject (i).

(i) Ich glaube, dass den Hausmeister die CHEfin schlägt.
I believe that the janitor.ACC the boss.NOM hits

The different word order conditions are also observable in adjectival experiencer structures, a fact that supports the idea of a classification parallel to the psych-verbs. Subject-experiencer adjectives, illustrated in (15), trigger the same markedness effect in all-new contexts as the non-psych structures like agent- (16) or possessor-subject (17) adjectives.

Again, the OE sentences show free word order even without contextual licensing of object fronting, as in (18).

- (15) a. Ich glaube, dass der Vater_{EXP} dem Lehrer abgeneigt/böse
 I believe that the father.NOM the teacher.DAT averse/angry
 /zugetan ist.
 /attached is
 ‘I believe that the father is averse to/angry with/attached to the teacher.’
- b. # Ich glaube, dass dem LEHrer der Vater_{EXP} abgeneigt/
 I believe that the teacher.DAT the father.NOM averse/
 böse/zugetan ist.
 angry/attached is
- (16) a. Ich glaube, dass der Vater_{AG} dem Lehrer dabei
 I believe that the father.NOM the teacher.DAT in.doing.so
 behilflich ist.
 helpful is
 ‘I believe that the father helps the teacher in doing that.’
- b. # Ich glaube, dass dem LEHrer der Vater_{AG}
 I believe that the teacher.DAT the father.NOM
 dabei behilflich ist.
 in.doing.so helpful is
- (17) a. Ich glaube, dass der Vater_{POSS} dem Lehrer ähnlich ist.
 I believe that the father.NOM the teacher.DAT similar is
 ‘I believe that the father resembles the teacher.’
- b. # Ich glaube, dass dem LEHrer der Vater_{POSS} ähnlich ist.
 I believe that the teacher.DAT the father.NOM similar is
- (18) a. Ich glaube, dass der Lehrer dem Vater_{EXP} bekannt/
 I believe that the teacher.NOM the father.DAT known/
 willkommen ist.
 welcome is
 ‘I believe that the teacher is known/welcome to the teacher.’
- b. Ich glaube, dass dem Vater_{EXP} der Lehrer
 I believe that the father.DAT the teacher.NOM
 bekannt/willkommen ist.
 known/welcome is

The word order contrast between SE and OE sentences is a characteristic property of psych-predicates in German and it occurs in both verbal as well as adjectival structures.

So far, it has been shown that adjectives from the psych-domain are similar to verbs in that they use different case patterns for the thematic relation of stimulus and experiencer. Additionally, they show a typical word order effect regarding OE structures. Thus, there are good reasons to treat them as a subset of the much-discussed psych-predicates. In the following section, I will discuss the properties of psych-adjectives for the German language.

3. Exploring German psych-adjectives

In German, adjectives can generally show a valence increase. They range from monadic to triadic and take dative, genitive, and, very rarely, accusative complements.⁶ Interestingly, only dative complementation of psych-predicates is productive (Wegener 1998: 73). In the next two subsections, I will take a closer look at the argument structural properties of psych-adjectives and specifically the nature of dative arguments.

3.1. Argument structure

Psych-predicates express a relation between an experiencer and a stimulus. Thus, one can assume that they are grounding dyadic predicates. “Without an individual capable of experience and without something to be experienced no experience is possible” (Klein and Kutscher 2005: 16; cf. Landau 1999). This assumption is not problematic for psych-verbs, since it is obligatory in most cases to realise both elements “even under strong contextual support”, as in (19) (Rákosi 2006: 124).

- (19) a. – Do you like the idea of working at weekends?
– It doesn’t really appeal *(to me).
b. – Did you check your insurance policy before the journey?
– No, it didn’t occur *(to me). (Rákosi 2006: 124)

In fact, it is possible to assume that both elements are required on a logical-semantic level. As the examples from (20) to (22) illustrate, German OE verbs are more flexible regarding the syntactic optionality.

- (20) a. Marias Verhalten nervt/stört ihn.
‘Maria’s behaviour bothers/disturbs him.’
b. Marias Verhalten nervt/stört.
‘Maria’s behaviour bothers/disturbs.’
(21) a. Das interessiert/wundert sie nicht.
‘That doesn’t interest/surprise them.’
b. Das interessiert/wundert nicht.
‘That doesn’t interest/wonder.’
(22) a. Das gefällt ihnen nicht mehr.
‘That doesn’t please them anymore.’
b. Das gefällt nicht mehr.
‘That doesn’t please anymore.’

For OE adjectives, it is an accepted option to realise a sentence without an explicit experiencer, as illustrated in (23). There are comparatively few of them requiring the dative at the syntactic level, as shown in (24).⁷

⁶ The following examples (ii)–(iv) illustrate the possible dative, genitive, and accusative complementation for German adjectives.

- (ii) Das ist mir bekannt.
that is me.DAT known
‘That is known to me.’
(iii) Ich bin dessen überdrüssig.
I am this.GEN sick
‘I am sick of it.’
(iv) Ich bin es gewohnt.
I am it.ACC accustomed
‘I am used to it.’

⁷ In the case of *fremd*, *gleich*, and *teuer*, the dative NP is necessary for the desired psych-reading. When they occur without a dative, there is a highly salient non-psych reading due to the different meanings of the adjectives; for an example, see (v).

- (v) Er ist fremd.
He is alien for *x* (i.e., *x* does not know him).
He is a stranger (i.e., he is not familiar with an area or neighbourhood).

- (23) Er/Das ist (ihr) ...
 'He/That is (to her) ...'
 (*un*)*angenehm* 'pleasant', (*un*)*begreiflich* 'unbelievable', *bekannt* 'known', *egal* 'doesn't matter', *einerlei* 'doesn't matter', *ernst* 'serious', *fremd* 'unknown', *klar* 'clear', *lästig* 'annoying', *lieb* 'beloved', *neu* 'new', *peinlich* 'embarrassing', *sympathisch* 'likeable', *unerklärlich* 'unexplainable', *unheimlich* 'eerie', *verhasst* 'abhorred', *verständlich* 'understandable', *wichtig* 'important', ...
- (24) Er/Das ist *(ihr) ...
 'It/That is to her ...'
bewusst 'aware', *zuwider* 'abhorrent', *fremd* 'unknown', *freund* 'nice', *gleich* 'equal', *teuer* 'dear, beloved'.

Regarding the optionality of arguments, OE verbs seem to be more restricted. In many cases, the versions without an explicit experiencer object are generally imaginable in a special context, but they are not as common or frequent as the corresponding adjectival structures, illustrated in (25).⁸

- (25) a. Marias Verhalten ärgert/empört/bestürzt/verwirrt ihn.
 'Maria's behaviour annoys/disgusts/consternates/confuses him.'
- b. ? Marias Verhalten ärgert/empört/bestürzt/verwirrt.
 'Maria's behaviour annoys/disgusts/consternates/confuses.'

However, in terms of syntactic valence there is irregular behaviour within the class of psych-predicates. In both cases the omission of the experiencer results in a common ground-reading of the sentence. Thus, the expressed feeling is not restricted to a special person or group of experiencers. The (b)-versions in (20)–(22) and the examples in (25) are general statements about the property of the subject.

SE adjectives also allow for the omission of the dative NP or the prepositional object representing the stimulus, as (26) and (27) illustrate. As the experiencer in OE structures, the stimulus remains implicit and is reconstructable from the context.

In verbal SE structures, this omission at the syntactic level is rather unusual, but possible, as in (28).

- (26) Hans ist (ihr) abgeneigt/böse/dankbar.
 'Hans is averse/angry/thankful (to her).'
- (27) Hans ist glücklich/froh/sauer/traurig/wütend (über Marias Verhalten).
 'Hans is happy/glad/mad/sad/angry (about Maria's behaviour).'
- (28) a. Ich staune/verzweifle (über sein neues Hobby).
 'I am astonished/saddened by his new hobby.'
- b. Ich staune/verzweifle.
 'I am astonished/saddened.'
 (Kutscher 2009: 54)

In some cases, one could question the existence of an implicit stimulus for SE adjectives. It seems that some of them "can express pure or inherent feelings" (Jackendoff 2007: 224) and can optionally realise a causing stimulus; others need a stimulus at the logical level to form a valid psych-expression. Implication tests can help clarify the situation. Eisenberg (1976), for example, separates *glücklich* 'happy' from other adjectives, because 'being happy' does not imply that there has to be a reason for it. In contrast, 'being angry' needs to be caused by some stimulus that does not necessarily have to be realised in the syntax.

- (29) a. Er ist wütend über die Rechnung. → Er ist wütend über etwas. → Er ist wütend.
 'He is angry about the bill. → He is angry about something. → He is angry.'
- b. Er ist wütend. → Er ist wütend über etwas.
 'He is angry → He is angry about something.'
- (30) a. Er ist glücklich über seinen Sohn. → Er ist glücklich.
 'He is happy about his son. → He is happy.'

⁸ The decrease in acceptability or frequency from adjectives to verbs without their experiencer complement is a result of their specific function. Adjectives often denote relative properties for which the specification (i.e., either omission or insertion) of the source of an opinion can be part of the information. Verbs describe processes or states rather than expressing general evaluations, and thus the omission of one of their arguments to specify the carrier of an opinion is not self-evident.

- b. Er ist glücklich. → Er ist glücklich über etwas.
 ‘He is happy. → He is happy about something.’

The application of implication tests for SE adjectives gives partially vague results, but they indicate an argument-structural variety for the group of subject-experiencer adjectives. Some of the adjectives alternate between ‘pure’ readings and actual feelings (e.g. ‘being sad’ is imaginable as pure feeling but generally needs a reason). This impression results from the general possibility of having intrinsic feelings, and second, from an overlap with a group of adjectives denoting mental properties (‘a sad man’). If, in general, the selection of an experiencer argument is the central property of psych-predicates, monovalence for subject experiencer adjectives is possible, whereas OE adjectives rely on their experiencer objects. I assume that there is no uniform way to handle all cases.

In general, testing the optionality of a phrase is one possible way to detect an adjunction process. Thus, the optionality of the dative NP allows one to assume that the datives of psych-adjectives are adjuncts. On the other hand, it is not preferable to put an experiencer dative on a level with temporal or local adjuncts or other free datives, not least because the experiencer is essential for the meaning of a psych-predicate. Hence, I adopt Hole’s (2008) optionality test that includes syntactic as well as semantic factors to identify the status of a dative phrase. The test claims that a dative is free (introduced per adjunction) iff the sentence without the dative would not imply there is an individual that is part of the given situation and that could be expressed by a dative phrase. The examples in (31) and (32) illustrate the relevant difference.

- (31) Paula gibt einen Lolli.
 ‘Paula gives a lollipop.’
 Implication: ‘There is an *x* that lollipop is given to.’ (Hole 2008: 8)
- (32) Paula kocht eine Bouillon.
 ‘Paula cooks a bouillon.’
 No implication: ‘There is an *x* that bouillon is cooked for.’ (ibid.)

In both cases, there is a person expressible by a dative NP, but only the concept of (31) requires an individual at the semantic level. If this test is applied to psych-adjectives, a clear picture arises. Both subject- (33) and object-experiencer (34) sentences imply an individual expressible by a dative phrase.

- (33) Marias Verhalten ist unangenehm/egal/bekannt/wichtig.
 ‘Maria’s behaviour is awkward/doesn’t matter/is known/is important.’
 Implication: ‘There is an *x* that Maria’s behaviour is awkward/doesn’t matter/is known/is important to.’
- (34) Hans ist abgeneigt/böse/zugetan.
 ‘Hans is averse/angry/attached.’
 Implication: ‘There is an *x* that Hans is averse to/angry with/attached to.’

These results show that the optional datives used in psych-constructions are not free, but part of the predicate’s valency.

The facts above lead to the conclusion that the argument structural difference between the psych-adjective subclasses is visible at the semantic level. SE adjectives vary between mono- and bivalence, while OE adjectives are grounding dyadic predicates. Contrary to psych-verbs, most of the adjectives need not realise their objects at the syntactic level. However, in many cases the optionality of an element is not sufficient evidence for an argument/adjunct distinction. Further evidence is the morphological variability of an element. Indeed, there are different potential morphological forms for stimulus or experiencer substitutions. Rákosi (2006: 128) shows that in English, in which no experiencer object NPs are allowed, it is possible to realise the experiencer in two ways, either with a *to*-PP or a *for*-PP.

- (35) This is important to/for me.
 (36) This is interesting to/for me.

Supporting data comes from dative-marking languages like Russian. The dative experiencer NP of modal and evaluative OE predicates can generally be replaced by a *for* (*djila*)-PP (Rákosi 2006: 128). In German, some of the adjectival psych-structures license similar morphological variation. The dative of OE (37) as well as SE adjectives (38) can be replaced by prepositional phrases bearing the individual.

- (37) a. Das ist mir unangenehm/peinlich/wichtig.
 that is me.DAT awkward/embarrassing/important
 ‘That is awkward/embarrassing/important to me.’

- b. Das ist unangenehm/peinlich/wichtig für mich.
that is awkward/embarrassing/important for me
'That is awkward/embarrassing/important for me.'
- (38) a. Er ist mir böse.
he is me.DAT angry
'He is angry with me.'
- b. Er ist böse auf mich.
he is angry on me.ACC
'He is angry with me.'

Evidence for the characterisation of the dative experiencer and the dative stimulus as adjuncts is twofold. As the examples above show, the datives are partly optional and morphologically replaceable. But note that, regarding the OE adjectives, there is a difference between the two morphological realisations of the experiencer role. The version with a dative NP expresses a valuation inside the experiencer, while the structures with an experiential *for*-PP are ambiguous between two interpretations: First, the PP can function as a substitution for the dative NP, just as assumed. Second, it can have a benefactive reading, paraphrased as 'for my purposes', which is not possible for the dative NP. It should be assumed that if a phrase can be expressed by other morphological forms and therefore be analysed as an adjunct, it should still maintain its meaning. It is indeed possible to understand a *for*-PP as a localisation of a feeling, too, e.g. with *angenehm* 'comfortable'. But the dative NP versions cannot always appear in the same contexts as the *for*-PP versions, as the contrast in (39) and (40) illustrates.

- (39) Du musst ihm_i sagen, dass es wichtig/peinlich für ihn_i ist.
'You have to tell him that it is important/embarrassing for him.'
- (40) # Du musst ihm_i sagen, dass es ihm_i wichtig/peinlich ist.
'You have to tell him that it is important/embarrassing to him.'

Furthermore, this distinction also explains the difference between *to*-PP and *for*-PP usage in English, as in (35) and (36) above. To what extent these differences in meaning are also detectable in other languages with PP-replaceability needs to be tested.⁹

So far, the possible morphological variation as well as the optionality of the experiencer in adjectival psych-constructions do not constitute a strong enough argument for a characterisation of the dative experiencer as an adjunct. Also notice that the variation is not applicable to all OE adjectives, as in (41).

- (41) * Das ist willkommen für mich.
that is welcome for me

In sum, the data indicate that dative experiencers of psych-adjectives should be regarded as facultative arguments. However, there is no convincing reason to assume that they are adjuncts in the classical sense. There is an interesting compromise found in Rákosi (2006). That is, this class of experiencers can be classified as so-called *thematic adjuncts*. They are optional but bear an inherent thematic role. Thus, psych-adjectives "allow an experiencer reading of the dative, but this is only an option and not a necessity. In other words, these predicates are only optionally psychological predicates [...]" (Rákosi 2006: 132). However, there are reasons for rejecting this proposal. The experiential reading of most of the presented adjectives is not optional. Furthermore, there are cases with an obligatory dative, and the data relating to morphological variation, which counts as a typical property of thematic adjuncts, was not fully convincing. Nevertheless, the assumption of a special status for the established classes 'argument' and 'adjunct' captures the facts that have been seen so far. Syntactic optionality and semantic regularity of the experiencer dative constitute a critical case for the argument-adjunct distinction. If the conditions for thematic adjuncts are changed for German psych-adjectives, this is a worthwhile analysis.

Again, the class of subject-experiencer adjectives does not permit a uniform answer. The evidence for morphological variation is partly more convincing, since there are no relevant meaning differences between the NP and the PP version of the stimulus realisation, shown in (42)–(43). Another difference is that there is no uniform PP head for the insertion or replacement of a stimulus NP. Contrary to the *for*-PP for experiencer dative substitution, there are several stimulus-introducing prepositions in German, e.g. *auf* 'with', *von* 'of', *über* 'about', *wegen* 'because of', *durch* 'through, by', even for just one predicate, as in (42).

- (42) Er ist böse mit mir / wegen mir / auf mich.
'He is angry with me / because of me / at me.'

⁹ For Hungarian, the *for*-replacement is convincing, since the dative is also ambiguous between experiential and benefactive reading (Rákosi 2006: 134). The example in (40) would be acceptable.

- (43) a. Er ist der Sache nicht abgeneigt.
 he is the cause not averse
 ‘He is not averse to the cause.’
 b. Er ist nicht abgeneigt von der Sache.
 ‘He is not averse to the cause.’

As already mentioned, some of the SE adjectives need to have a stimulus as their semantic argument, whereas concepts like ‘being happy’ make sense without any causing stimulus. This distinction may be manifested in different kinds of PP heads. The following examples in (44)–(47) reveal differences between the PP options.

- (44) a. Karl ist trotz des Kaffees müde.
 Karl is despite the coffee tired
 ‘Karl is tired in spite of the coffee.’
 b. *Karls Müdigkeit trotz des Kaffees
 ‘Karl’s tiredness in spite of the coffee’ (Eisenberg 1976: 142)
- (45) a. Karl ist krank von der Zugluft.
 ‘Karl is sick because of draft.’
 b. *Karls Krankheit von der Zugluft
 ‘Karl’s sickness because of draft’ (ibid.)
- (46) a. Karl ist traurig über Paul.
 ‘Karl is sad about Paul.’
 b. Karls Trauer (Traurigkeit) über Paul
 ‘Karl’s sadness about Paul’ (ibid.)
- (47) a. Karl ist neidisch auf dich.
 ‘Karl is envious of you.’
 b. Karls Neid auf dich
 ‘Karl’s enviousness of you’ (ibid.)

In contrast to (44) and (45), the nominalisation process in (46) and (47) is grammatical with respect to the PPs. This indicates that, in these cases, the PP has the status of an argument (Eisenberg 1976: 142). Therefore, the stimulus in adjectival SE structures can have either argument or adjunct status.

To sum up: the implication test shows that experiencer and stimulus objects are implied and therefore obligatory at the semantic level – with the exception of SE adjectives denoting pure feelings. The variability test reveals that the substitution of the dative experiencer with a *for*-PP is not a clear alternative, since it leads to an extension of meaning outside the experiencer domain. The stimulus dative of SE adjectives is replaceable in various ways, but an additional nominalisation test indicates a difference between the possible PPs.

I conclude that the argument structure of psych-adjectives is not uniform. There are monadic and dyadic structures, adjectives allowing a PP complement or an obligatory or optional dative NP. Since one can refer to pure feelings and mental states, for some of the adjectives the experiencer is the only obligatory element on a conceptual level. There might always be a causing stimulus, but its surface argument structural relevance is not able to be determined at this point. On the other hand, most of the adjectives describe a relation between an experiencer and a stimulus, akin to the corresponding psych-verbs. However, the data also show that the assumption of the bivalence of psych-adjectives is less certain than for verbs.

The variation in the class of psych-adjectives leads to a solution at the lexical level, but notice that a subclass of OE adjectives reveals a more homogeneous pattern. The dative occurs especially with psych-adjectives and is still productive, optional, and often replaceable by a *for*-PP. In the next section, I will take a closer look at the role of OE adjectives and their datives.

3.2. The dative-experiencer

The choice of case depends on various factors, especially in terms of the dative as the “case of incoherence” (Willems 1997: 203). The dative is frequently discussed because of its ability to mark numerous thematic roles (goal, benefactive, source, experiencer; elaborated in Wegener 1985, Schöfer 1992). Wegener (1985) discusses the different uses of the dative in order to define its central characteristics. She assumes that, generally, the dative is animate and directly involved, and that it acts independently in the relevant situation.

In the case of psych-adjectives, the dative case is primarily used for experiencer encoding and only occasionally for stimulus encoding. The experiencer dative is inherently animate, since it indicates emotional or mental processes. The stimulus dative of SE adjectives can also refer to inanimate objects (48).

- (48) Hans ist dem Vorschlag (gegenüber) nicht abgeneigt.
 Hans is the proposal (towards) not averse
 'Hans is not averse to the proposal.'

Inanimate objects are not possible for OE adjectives, which require a potential carrier of an emotion that is fully involved in the situation. The contrast between (49) and (50) points out that the experiencer has to be aware of the situation, which does not hold for an individual realised as a stimulus dative.

- (49) * Er ist Maria; wichtig, aber sie; weiß nichts davon.
 'He is important to Maria, but she doesn't know it.'
 (50) Er ist Maria; böse, aber sie; weiß nichts davon.
 'He is angry with Maria, but she doesn't know it.'

In German, the characterisation and classification of a dative always includes the consideration of dative classes, i.e., groups of datives with similar structural behaviour and specific semantic functions. The examples in (51)–(54) list the common dative classes.

- (51) *Dativus Commodi*: advantage
 Hans wäscht ihr das Auto.
 Hans washes her.DAT the car
 'Hans washes the car for her.'
 (52) *Dativus Ethicus*: solicitousness
 Maria wird mir doch nicht zu spät kommen.
 Maria will me.DAT PART not too late come
 'I hope that Maria will not be late.'
 (53) *Dativus Iudicantis*: judgment/opinion
 Das ist mir zu schwer.
 that is me.DAT too heavy
 'That is too heavy for me.'
 (54) Dative of possession:
 Hans tritt ihr auf den Fuß.
 Hans steps her.DAT on the foot
 'Hans steps on her foot.'

The stimulus datives of SE-adjectives do not fit in any of these groups, which suggests a rather idiosyncratic usage. The experiencer datives seem to play a special role, since their meaning is close to the *Dativus Iudicantis* (DIu), the dative of judgment in (53). In both cases, the individual expressed by the dative is a carrier of a mental attitude. Compare (55) with (56).

- (55) Marias Verhalten ist ihm zu blöd.
 Maria's behaviour is him.DAT too stupid
 'Maria's behaviour is too stupid to him.'
 (56) Marias Verhalten ist ihm unangenehm.
 Maria's behaviour is him.DAT awkward
 'Maria's behaviour is awkward to him.'

German DIu occurs in adjectival or adverbial structures. Furthermore, the DIu, as exemplified in (57) and (58), is licensed by adding *zu* 'too' or *genug* 'enough' to the predicate. The grading particles introduce "a condition for a limit (both upper and lower) regarding the dimension specified in the governing adjective" (Bierwisch 1989: 194). Without them, the structures become ungrammatical, as the examples (57b) and (58b) illustrate.

- (57) a. Der Mantel ist mir nicht groß genug.
 the coat is me.DAT not big enough
 'The coat is not big enough for me.'
 b. * Der Mantel ist mir nicht groß.
 the coat is me.DAT not big

‘The coat is not big for me.’

- (58) a. Der Mantel ist mir zu groß.
the coat is me.DAT too big
‘The coat is too big for me.’
- b. * Der Mantel ist mir groß.
the coat is me.DAT big
‘The coat is big for me.’

According to Wegener (1985), the replacement of the dative with *für*-PPs is another characteristic of German DIu, as in (59).

- (59) a. Der Mantel ist *mir* zu groß.
b. Der Mantel ist zu groß *für mich*.
‘The coat is too big for me.’

As has been shown in the previous subsection, this morphological substitution is also an option for the dative of many OE adjectives. However, the *for*-substitution of experiencers allows a possible change of meaning and is therefore not an exact substitute for the experiencer dative.

Although their interpretation is quite similar, the illustrated properties of the DIu distinguish both the judgment and experiencer dative class. But are these differences convincing arguments against a possible unification of experiencer datives and DIus?

Note that the observed ambiguity emerging from the *for*-PP replacement also arises for the DIu. The PP version allows for an interpretation of the individual as a mere reference point without any mandatory evaluation inside the individual, illustrated in (60).

- (60) Der Mantel ist zu groß für ihn (= für seine Körpergröße).
‘The coat is too big for him (= for his size).’

Moreover, Schöfer (1992) points out that the structures with a PP are not necessarily subject to the animacy condition, as in (61).

- (61) a. * Der Teppich ist dem Zimmer zu groß.
the carpet is the room.DAT too big
‘The carpet is too big for (= to) the room.’
- b. Der Teppich ist zu groß für das Zimmer.
‘The carpet is too big for the room.’

These facts show that the PP-replacement is not a sufficient alternative for OE datives and the DIu.

Further important evidence for the connection between both classes is that experiencer and DIu contexts are restricted to animate entities, as in (62).

- (62) a. * Marias Verhalten ist dem Anlass zu locker.
Maria’s behaviour is the occasion.DAT too casual
- b. Marias Verhalten ist zu locker für den Anlass.
Maria’s behaviour is too casual for the occasion.ACC
‘Maria’s behaviour is too casual for the occasion.’

The structural similarities of the DIu and experiencer datives are both their ability to appear in adjectival predicative constructions and the optionality of the dative NP in DIu and OE structures, as in (63) and (64), respectively.

- (63) Der Mantel ist zu groß.
‘The coat is too big.’
- (64) Der Stoff ist angenehm.
‘The material is comfortable.’

The comparison of OE adjectival and DIu structures reveals that they have a lot in common. However, if one looks closer at the DIu structures, some differences can be found. The awareness condition for experiencer datives, for example, does not hold for DIu contexts. Compare (65) to (66).

- (65) * Der Mantel ist ihr_i unangenehm, aber sie_i weiß es nicht.
 ‘The coat is uncomfortable for (= to) her, but she doesn’t know it.’
- (66) a. Der Mantel ist ihr_i zu groß, aber sie_i weiß es nicht.
 ‘The coat is too big for her, but she doesn’t know it.’
- b. Du musst ihr_i sagen, dass ihr_i der Mantel zu groß ist.
 ‘You have to tell her that the coat is too big for her.’

Obviously, there are two possible readings in the case of DIu. Thus, the meaning change with *for*-phrases is also possible for the DIu-structures. Either the dative individual judges the situation while the speaker merely communicates it, or there is someone from outside the sentence domain, i.e., the speaker himself, who judges the situation without the dative individual being aware of it. In order to disambiguate a DIu structure, one can insert an explicit evaluator, as in (67). Here it can also be shown that the awareness condition is obligatory for the reading in which the dative represents the evaluator, as in (68), but not in the case of an external evaluator, as in (69).

- (67) a. Der Mantel ist der Frau zu groß. Evaluator: speaker, woman
 ‘The coat is too big for the woman.’
- b. Sie_i findet, dass ihr_i der Mantel zu groß ist. Evaluator: woman
 ‘She thinks that the coat is too big for her.’
- c. Ich finde, dass ihr der Mantel zu groß ist. Evaluator: speaker
 ‘I think that the coat is too big for her.’
- (68) * Sie_i findet, dass ihr_i der Mantel zu groß ist, aber sie_i weiß es nicht.
 ‘She thinks that the coat is too big for her, but she doesn’t know it.’
- (69) Ich finde, dass ihr_i der Mantel zu groß ist, aber sie_i weiß es nicht.
 ‘I think that the coat is too big for her, but she doesn’t know it.’

A judgment from outside is not possible for adjectival OE structures, illustrated in (70). A speaker can only reflect the meaning or feeling of the individual expressed by the dative NP.

- (70) * Ich finde, dass der Mantel der Frau angenehm ist.
 ‘I think (= in my opinion) the coat is comfortable to the woman.’

However, both the awareness condition and the ambiguity effect in DIu structures depend on the predicate itself. Compare (71) with (66) above. If a subjective predicate is inserted, one finds the same conditions as for OE adjectives.

- (71) * Der Kuchen ist ihr zu süß, aber sie weiß es nicht.
 ‘The cake is too sweet for her (= in her opinion), but she doesn’t know it.’
- (72) * Ich finde, dass ihr der Kuchen zu süß ist.
 ‘I think the cake is too sweet for her (= in her opinion).’

Thus, the ambiguous reference of the DIu is missing in some cases, whereas the dative of OE adjectives is generally restricted to the interpretation of an internal evaluation.

At this point, I assume that the characterisation of the DIu has to be revised. One would expect that the DIu, as the dative of judgment or opinion, solely encodes an evaluating individual. The cases in which this individual is a mere reference point without evaluation should not be classified as DIu. If only “judging datives” are included, the parallelism between the DIu and experiencer datives is much more obvious.

In sum, one can assume that the adjectival OE constructions can be seen as an instance of DIu. The most striking difference between OE datives and DIu is the obligatoriness of grading particles. As is known, the particles are not necessary for OE structures. A possible structural solution for this disparity is the adoption of a degree phrase (DegP) proposed by Krivokapić (2006) for both dative structures. For the OE structures without the particle, she assumes an empty head.¹⁰

¹⁰ Krivokapić (2006) is analysing dative arguments in Serbian, in which one can also find corresponding OE adjectives (vi).

(vi) Ona je Marku lepa.
 she is Marko.DAT pretty
 ‘She is pretty to/for Marco.’

(Krivokapić 2006: 301)

The comparison of dative experiencers and the DIu largely reveals a lot of similarities. At first sight, the animacy condition, *for*-phrase replacement and the obligatoriness of a grading particle may separate these dative types. However, I argue that the differences only hold for one reading of DIu structures, when the dative does not refer to a judging individual but to an external judging observer. DIu usages in the narrow sense, in which the dative refers to someone expressing a certain mental attitude, are very similar to experiencer datives. With respect to the similarities, the adjectival OE structures are closely related to the DIu pattern. The question regarding how exactly both classes are connected remains open for further research. At this point, it is important to note the resemblance between the adjectival OE structures under examination and the established German DIu as evidence for the evaluative function of the dative experiencer associated with psych-adjectives. These observations give interesting insights into the grounding semantic structure of OE versus SE structures, which will be strengthened in the next section.

4. Experiencer vs. evaluator

Regarding psych-predicates, the central question is the following: why are there different markings for the experiencer, the individual carrying the feelings, expressed by the predicate? It has been shown that the same question should arise for a special class of adjectives. OE adjectives constitute an interesting case, since they generate a productive pattern and behave consistently compared to SE adjectives. Considering the data in the last section, one can form a concept of the nature of adjectival OE structures. The similarities to the DIu suggest that, additional to the encoding of emotional or mental processes, predication with OE adjectives also contains a process of opinion formation. Roughly speaking, in contrast to SE adjectives, there is an additional evaluative component in the semantics of OE adjectives, which is probably responsible for the different psych-structures in the adjectival domain.

One observation supporting this view is the parallel structural behaviour between OE adjectives and evaluative adjectives (EA). If one assumes that OE adjectives contain a relevant evaluative component, it is thus of interest to compare them to EA, which have already been widely discussed in the literature (see Stowell 1991, Landau 2006, Kertz 2006, Jackendoff 2007). For some examples, see (73).

- (73) rude, mean, clever, smart, nice, kind, silly, imprudent, impolite, generous, courteous, cruel, mad, mischievous, considerate, humane, pretentious, humble, modest, charming, sadistic, masochistic, intelligent, stupid, dumb, idiotic, noble, cowardly, cunning, farsighted, skillful, selfish, crazy, foolish (Landau 2006: 3)

Interestingly, evaluative adjectives alternate systematically between two syntactic frames. Their subject can either refer to an individual who possesses the expressed property or to an event which is somehow related to an individual, as in (74). This alternation is also observable with most of the OE adjectives (see Bennis 2000, Landau 2006), illustrated in (75). Furthermore, EA (76) as well as OE adjectives (77) allow sentential themes to occur as their subject.

- (74) a. John is mean/stupid/funny/nice (...).
 b. That is mean/stupid/funny/nice (...).
- (75) a. Hans ist mir angenehm/bekannt/egal/peinlich/nicht geheuer/wichtig (...).
 ‘Hans is pleasant/is known/doesn’t matter/is embarrassing/is fishy/is important (...) to me.’
 b. Das ist mir angenehm/bekannt/egal/peinlich/nicht geheuer/wichtig (...).
 ‘That is pleasant/is known/doesn’t matter/is embarrassing/is fishy/is important (...) to me.’
- (76) It is mean/stupid/funny/nice (...) to do that.
- (77) Es ist mir angenehm/egal/peinlich/nicht geheuer/wichtig (...), das zu tun.
 ‘It is pleasant/doesn’t matter/is embarrassing/is fishy/is important (...) to do that.’

However, SE adjectives do not allow these structures, as the examples in (78) illustrate. There seem to be some SE adjectives exhibiting both individuals and events as its subject, as shown in (79). Note that in these cases, the predicate is an instance of EA rather than SE adjectives. Thus, for some SE adjectives there are two different argument structures, one encoding the experiential and one encoding the evaluative usage. As experiencer-adjectives, they are consistent with the SE class, i.e., they do not allow eventive subjects. Note that for two-place SE adjectives, the realisation of a dative NP is not possible in the case of the evaluative reading, as in (80).

- (78) a. Hans ist abgeneigt/dankbar/froh/glücklich/nervös/unsicher/wütend/zugetan.
'Hans is averse/thankful/glad/happy/nervous/unsure/angry/attached.'
- b. * Das ist abgeneigt/dankbar/froh/glücklich/nervös/unsicher/wütend/zugetan.
'It is averse/thankful/glad/happy/nervous/unsure/angry/attached.'
- c. * Es ist abgeneigt/dankbar/froh/glücklich/nervös/unsicher/wütend/zugetan, das zu tun.
'It is averse/thankful/glad/happy/nervous/unsure/angry/attached to do that.'
- (79) a. Hans ist böse/traurig.
'Hans is mad/sad.'
- b. Das ist böse/traurig.
'It is mean/sad.'
- (80) a. Hans ist mir böse.
'To me, Hans is mad.'
- b. * Das ist mir böse.
'It is angry to me.'

There are also differences between EA and OE adjectives. With few exceptions, psych-adjectives are not able to realise the subject individual as a PP adjunct, as in (81).¹¹ This is a general option for so-called mental property adjectives (MP-adjectives), a special class of evaluative predicates, illustrated in (82). "MP adjectives cannot attribute a property to an action without simultaneously attributing this property to the agent of the action" (Stowell 1991: 111). This is not the case with most of the psych-adjectives, since an event or action can be sad, comfortable, serious, or important without the implication of a personal attribute.

- (81) * Das ist angenehm/bekannt/egal/nicht geheuer/wichtig/willkommen von Hans.
'It is pleasant/is known/doesn't matter/is fishy/is important/is welcome of Hans.'
- (82) Das ist gemein/dumm/höflich von Hans.
'It is mean/stupid/polite of Hans.'

A further difference is that OE adjectives can obviously realise the evaluating individual in the form of a dative NP, as in (83), whereas EAs do not have this option, as shown in (84). For EA, there is the option to externalise an evaluator with paraphrases like 'I/They think that...' or 'In my/their opinion ...'.

- (83) Der Mann ist mir lästig/sympathisch/unheimlich.
'The man is annoying/likeable/eerie for (= to) me.'
- (84) * Der Mann ist mir dumm/sadistisch/verrückt.
'The man is stupid/sadistic/crazy to me.'

Despite these differences, it can be stated that OE adjectives are closer to evaluative predicates than SE-adjectives, since they show relevant structural similarities to the class of evaluative adjectives. The assumption that OE structures are part of the big class of evaluative structures leads to the question why some of the EAs seem to allow the realisation of the evaluator as a dative NP and others do not (reconsider (83) and (84)). I assume that OE adjectives generate a subclass of evaluative structures. Their lexical specification enables them to realise a judging dative individual.

Interestingly, it seems that the insertion of the dative in adjectival structures is a more flexible pattern than expected. In German, there are also less frequent but clearly understandable OE structures derived from otherwise frequent evaluative structures, as illustrated in (85)–(88). Due to this productive pattern, there is no clear-cut line between the different adjective classes.

- (85) Das Leben ist *mir* widerwärtig u[nd] der Tod ist *mir* grauenhaft.¹²
'Life is disgusting *to me* and death is gruesome *to me*.'

¹¹ According to Landau (2006), it is possible to realise the individual as an *of*-PP in an EA as well an OE structure, as in (vii)–(viii).

(vii) a. John was very generous.
b. That tribute was very generous (of John). (Landau 2006: 1)

(viii) a. John was appalling/amusing.
b. That was appalling/amusing (of John). (Landau 2006: 40)

¹² DWDS corpus; Klemperer, Victor [Tagebuch/'diaries'] 1932, p. 287.

- (86) Und doch: Dieses neue Christentum ohne das Sakrale ist *mir* ärgerlich.¹³
 ‘And yet: this new Christianity without the sacral (element) is annoying *to me*.’
- (87) Ob die Menschen Vernunft haben, ist *mir* entsetzlich problematisch; (...).¹⁴
 ‘Whether the people are reasonable, is incredibly problematic *to me*.’
- (88) Ob bei einem solchen Angebot die Barriere gegen private Eugenik halten wird, das ist *mir* zweifelhaft.¹⁵
 ‘Whether the barrier against private eugenics can be stable with an offer like this is questionable to me.’

The examples show that the flexibility is interesting evidence for the productivity and the regularity of the adjectival experiencer dative pattern. There are a lot of adjectives showing this potential. However, since this kind of dative is not possible for the EAs in general, evaluation is not a sufficient component. One needs to assume additional semantic conditions to license experiencer datives. I propose that OE adjectives are lexically specified as experiencer [exp] as well as evaluative predicates [val], just as Schöfer (1992) assumes for the cases of *Dativus Iudicantis* in German. With the existence of a dative experiencer, one or more individuals are identified who carry the expressed feeling and attitudes. SE adjectives do not carry an evaluator feature. Additionally, the predication with OE adjectives is more complex than in adjectival SE structures or non-psych structures. In SE structures, the central predication affects the subject, whereas in OE structures the predication is two-dimensional. First, there is an assignment of properties to a subject individual or an event (‘be pleasant’, ‘be likeable’) as in SE structures. But second, adjectival OE-predication contains an evaluation by an individual encoded by the dative (‘to find sth. pleasant/likeable’). In German, word order variation regulates the prominence of one or the other intended part of predication, as shown in (89).

- (89) a. Hans_{EXP} ist Marias Verhalten egal.
 b. Marias Verhalten ist Hans_{EXP} egal.
 ‘Maria’s behaviour doesn’t matter to Hans.’

Finally, the last supporting pieces of evidence for the assumption of specific features for adjectival OE structures are from a typological perspective regarding psych-adjectives. For Hungarian, for example, Rákosi (2006) classifies the largest group of OE adjectives as “evaluative predicates”. For Korean OE adjectives, Kim (2008: 3311) assumes that “the dative case is predictable from the lexical conceptual structure of the psych-adjectives”. In Japanese, adjectives that express an experiencer-stimulus relation also occur with two different case patterns: the double nominative pattern (NOM/TOP-NOM-pattern) and the dative experiencer pattern. According to Căluianu (1996), the two structures have differing semantic bases. The sentence in (90) represents the sensation pattern, while (91) stands for the evaluation pattern.

- (90) Watashi-wa hiyake shite kao-ga atsui.
 I-TOP get sunburnt face-NOM hot
 ‘My face feels hot from the sunburn.’ (Căluianu 1996: 28)
- (91) Watashi-ni-wa kono su:pu-ga atsui.
 I-DAT-TOP this soup-NOM hot
 ‘This soup feels hot.’ (Căluianu 1996: 32)

The dative experiencer in (91) “is not merely a passive receptor of sensations” (Căluianu 1996: 33). It also passes through an evaluation process. As a consequence, the two experiencers take on different semantic roles; thus, the structures are case-marked differently. Notice that in these cases, the separation problem of adjectival classes emerges much stronger, since it is the same adjective which shows both case patterns.

The data so far indicates that the realisation of experiencers as objects instead of subjects has a certain function. The assumption is as follows: if a language exhibits more than one adjectival psych-structure, there is a semantic difference between them. In German, and apparently in other languages, there is an additional evaluative component. Whether this characterisation can be extended over more languages has yet to be proved. The parallel interpretation of German and Japanese psych-adjectives brings up an interesting perspective. One can hypothesise that this kind of difference commonly appears in the domain of psych-adjectives. Further typological research will bring about a more detailed picture.

¹³ DIE ZEIT, 12.10.1973, no. 42.

¹⁴ DIE ZEIT, 07.04.1967, no. 14.

¹⁵ DIE ZEIT, 16.01.1998, no. 4.

5. Conclusion

This paper constitutes a first appraisal regarding psychological adjectives. There are three main results. First, it was shown that the subject/object-experiencer distinction occurring with psych-verbs is also possible for adjectives from the psych-domain. The parallel word order conditions of psych-verbs and psych-adjectives in German support this idea. Second, the main argument structural properties were documented and thereby left open to future lexical-categorical and typological comparison. The data reveal differences between the realisations of an experiencer as a subject or an object. Object-experiencers seem to stick out from the group, in that their dative argument resembles the *Dativus Iudicantis* in relevant points. That gives rise to a characterisation of the OE structures as an instance of judgment. As a final result, this finding was supported by the comparison to the class of evaluative adjectives as well as to external data from Japanese, where similar differences with psych-adjectives were found. Thus, it has been argued that the assumption of an evaluative component for OE adjectives is well supported. OE adjectives are predicates of subjective evaluation, whereas SE adjectives primarily refer to the emotional state of an individual.

The extension of the class of psych-predicates reveals an interesting regular pattern. OE adjectives allow for the realisation of the evaluator/experiencer of the expressed feeling as a dative NP. The only productive case of adjectival complementation appears to be optional and semantically homogeneous. Note that the extension is also applicable to nouns. German psych-nouns in copular constructions seem to allow the same dative insertion, as shown in (92).

- (92) Es ist mir eine Ehre/eine Freude/ein Leichtes.
'It's an honour/a pleasure/easy to me.'

Based on the dative, one finds many other adjective-related structures which carry the potential of encoding an evaluating individual in the same way.

- (93) Das scheint mir ungewöhnlich/unpassend/machbar zu sein.
'It seems extraordinary/inappropriate/feasible to me.'
- (94) Das kommt mir ungewöhnlich/unpassend/komisch vor.
'It appears to be extraordinary/inappropriate/feasible to me.'

In general, psych-predicates do not seem to follow the grammatical rules which cover the core repertoire of predicate structures. At first sight, this behaviour suggests that they build exceptional structures which are most likely regulated in the lexicon, but given the relevance of cognitive concepts in general and the cross-linguistic validation of the so-called psych-effects, there is good reason to negotiate the "exceptional" status of psych-predicates. The type of effects they show often depends on language-specific factors; however, the existence of effects reflects a core property of psych-predicates.

Additionally, the case of psych-adjectives alludes to several key issues in linguistics: case marking, linking, semantic roles, subjectivity, evaluation, emotional encoding, just to name a few. Moreover and most importantly, it is not an individual language effect. That is why the present paper built on the suggestion of identifying regular properties of (alleged) irregular non-directional patterns, just as Fries (2007) pointed out as a tendency in linguistic research. An exhaustive analysis of a phenomenon which concentrates on its core properties can give more insight into central linguistic questions, since it may uncover connections that might otherwise be overlooked.

References

- Anagnostopoulou, Elena. 1999. On experiencers. In *Studies in Greek Syntax*, ed. by Artemis Alexiadou, Geoffrey Horrocks, and Melita Stavrou, 67–93. Studies in Natural Language and Linguistic Theory 43. Dordrecht: Kluwer Academic Publishers.
- Anscombe, Jean-Claude. 2004. From psych-nouns to psych-adjectives in French: Some semantics insights. *Journal of Cognitive Science* 5: 51–71.
- Arad, Maya. 1998. Psych-notes. *UCL Working Papers in Linguistics* 10: 203–223.
- Belletti, Adriana and Luigi Rizzi. 1988. Psych-verbs and Θ -theory. *Natural Language and Linguistic Theory* 6: 291–352.
- Bennis, Hans. 2000. Adjectives and argument structure. In *Lexical Specification and Lexical Insertion*, ed. by Peter Coopmans, Martin Everaert, and Jane Grimshaw, 27–69. Philadelphia: John Benjamins.

- Bennis, Hans. 2004. Unergative adjectives and psych-verbs. In *The Unaccusativity Puzzle: Explorations of the Syntax-Lexicon Interface*, ed. by Artemis Alexiadou, Elena Anagnostopoulou, and Martin Everaert, 84–137. Oxford: Oxford University Press.
- Bierwisch, Manfred. 1989. The semantics of gradation. In *Dimensional Adjectives: Grammatical Structure and Conceptual Interpretation*, ed. by Manfred Bierwisch and Ewald Lang, 71–261. Berlin: Springer Verlag.
- Bouillon, Pierrette. 1996. Mental state adjectives. The perspective of generative lexicon. In *Proceedings of the 16th International Conference on Computational Linguistics (COLING-96)*, 143–148. Copenhagen.
- Căluianu, Daniela. 1996. Case patterns with subjective adjectives. *Tsukuba Working Papers in Linguistics* 3: 27–40.
- Chen, Dong-Dong. 1995. UTAH: Chinese psych verbs and beyond. In *Proceedings of the 6th North American Conference on Chinese Linguistics*, ed. by José Camacho and Lina Choueiri, 15–29. Los Angeles: GSIL, University of Southern California.
- Croft, William. 1993. Case marking and the semantics of mental verbs. In *Semantics and the Lexicon*, ed. by James Pustejovsky, 55–72. Dordrecht: Kluwer Academic Publishers.
- Eisenberg, Peter. 1976. *Oberflächenstruktur und logische Struktur. Untersuchung zur Syntax und Semantik des deutschen Prädikatadjektivs*. Tübingen: Niemeyer.
- Fries, Norbert. 2007. Schnittstellen, Arbitrarität, Kern und Rand. In *Deutsche Grammatik im europäischen Dialog: Beiträge zum Kongress Krakau 2006*, ed. by Norbert Fries and Christiane Fries. <http://www2.rz.hu-berlin.de/linguistik/institut/syntax/krakau2006/beitraege/fries.pdf> (last access: 27.06.13).
- Gallmann, Peter. 1992. Dativanhebung? *Groninger Arbeiten zur Germanistischen Linguistik (GAGL)* 35: 92–122.
- Goy, Anna. 2000. Lexical semantics of emotional adjectives. In *Linguistics in Cognitive Science: Proceedings of Student Conference in Linguistics 10*, ed. by Michele Feist, Stephen Fix, Jennifer Hay, and Julia Moore, 49–60. MIT Working Papers in Linguistics 37. Cambridge, MA: MIT Press.
- Grimshaw, Jane. 1990. *Argument Structure*. Cambridge, MA: MIT Press.
- Haider, Hubert. 1985. The Case of German. In *Studies in German Grammar*, ed. by Jindrich Toman, 23–64. Studies in Generative Grammar 21. Dordrecht: Foris Publications Holland.
- Haman, Cornelia. 1991. Adjectives. In *Semantik/Semantics: An International Handbook of Contemporary Research*, ed. by Arnim von Stechow and Dieter Wunderlich, 657–674. Berlin: de Gruyter.
- Hole, Daniel. 2008. Dativ, Bindung, Diathese. Habilitation thesis. Humboldt-Universität zu Berlin. <http://www.ilg.uni-stuttgart.de/mitarbeiter/hole/HabilHolemitTitel.pdf> (last access: 10.07.13).
- Jackendoff, Ray. 2007. *Language, Consciousness, Culture: Essays on Mental Structure*. Cambridge, MA: MIT Press.
- Kertz, Laura. 2006. Evaluative adjectives: An adjunct control analysis. In *Proceedings of the 25th West Coast Conference on Formal Linguistics*, ed. by Donald Baumer, David Montero, and Michael Scanlon, 229–235. Somerville, MA: Cascadilla Proceedings Project.
- Kim, Ilkyu. 2008. On the nature of dative case in Korean dative experiencer constructions. In *Current Issues in Unity and Diversity of Languages: Collection of the Papers Selected from the CIL 18, Held at Korea University in Seoul, on July 21–26, 2008*, ed. by the Linguistic Society of Korea, 3310–3329. Seoul: Korea University.
- Kim, Young-joo and Richard Larson. 1989. Scope interpretation and the syntax of psych-verbs. *Linguistic Inquiry* 20: 681–688.
- Klein, Katharina and Silvia Kutscher. 2005. Lexical economy and case selection of psych-verbs in German. Script, Ruhr-Universität Bochum. <http://www.linguistics.ruhr-uni-bochum.de/~klein/papers/LexEconPsych.pdf> (last access: 10.07.13).
- Krivokapić, Jelena. 2006. Putting things into perspective. The function of the dative in adjectival constructions in Serbian. In *Datives and Other Cases: Between Argument Structure and Event Structure*, ed. by Daniel Hole, André Meinunger, and Werner Abraham, 301–329. Amsterdam: Benjamins.
- Kutscher, Silvia. 2009. *Kausalität und Argumentrealisierung: Zur Konstruktionsvarianz bei Psychverben in europäischen Sprachen*. Linguistische Arbeiten 528. Tübingen: Niemeyer.
- Landau, Idan. 1999. Psych-adjectives and semantic selection. *The Linguistic Review* 16: 333–358.
- Landau, Idan. 2006. Ways of being rude. Script, Ben Gurion University. <http://www.bgu.ac.il/~idanl/files/Rude%20Adjectives%20July06.pdf> (last access: 10.07.13).
- Landau, Idan. 2010. *The Locative Syntax of Experiencers*. Cambridge, MA: MIT Press.
- Pesetsky, David. 1987. Binding problems with experiencer verbs. *Linguistic Inquiry* 18: 126–140.
- Pesetsky, David. 1995. *Zero Syntax: Experiencers and Cascades*. Cambridge, MA: MIT Press.

- Pylkkänen, Liina. 1997. Stage and individual-level psych verbs in Finnish. Paper presented at Workshop on Events as Grammatical Objects, Cornell University, Ithaca.
- Rákosi, György. 2006. Dative experiencer predicates in Hungarian. Dissertation, Universiteit Utrecht. <http://igitur-archive.library.uu.nl/dissertations/2006-1122-200507/full.pdf> (last access: 10.07.13).
- Rozwadowska, Bożena and Dorota Klimek. 2004. From psych adjectives to psych verbs. *Poznań Studies in Contemporary Linguistics* 39: 59–72.
- Schöfer, Göran. 1992. Semantische Funktionen des Dativs. Vorschlag einer Alternative zur Diskussion um den homogenen/heterogenen Dativ der deutschen Gegenwartssprache. Dissertation. Münster: Nodus Publikationen.
- Stowell, Tim. 1991. The alignment of arguments in adjective phrases. *Syntax and Semantics* 25: 105–135.
- Verhoeven, Elisabeth. 2007. *Experiential Constructions in Yucatec Maya: A Typologically Based Analysis of a Functional Domain in a Mayan Language*. SLCS 87. Amsterdam: Benjamins.
- Verhoeven, Elisabeth. 2008. Grammaticalization in constructions: Clitic doubling with experiencers in Modern Greek. In *Studies on Grammaticalization*, ed. by Elisabeth Verhoeven, 251–281. Berlin: de Gruyter.
- Verhoeven, Elisabeth. 2009. Subjects, agents, experiencers, and animates in competition: Modern Greek argument order. *Linguistische Berichte* 219: 355–376.
- Willems, Klaas. 1997. *Kasus, grammatische Bedeutung und kognitive Linguistik: Ein Beitrag zur allgemeinen Sprachwissenschaft*. Tübingen: Narr.
- Wegener, Heide. 1985. *Der Dativ im heutigen Deutsch*. Studien zur Deutschen Grammatik 28. Tübingen: Narr.
- Wegener, Heide. 1998. Die Kasus des EXP. In *Die Kasus im Deutschen: Form und Inhalt*, ed. by Marcel Vuillaume, 71–83. Tübingen: Stauffenburg.

