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FROM PSYCH ADJECTIVES TO PSYCH VERBS*

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ABSTRACT

This paper is a contribution to the on-going debate concerning the argument structure of psychological predicates (i.e. Experiencer predicates). Building on Bennis (2002), we apply his "complex/simplex ergativity" approach to psych-predicates in Polish, arguing that it needs some modifications. We argue (contra Bennis) that OE psych verb constructions with a Theme argument in the subject position do not result from the lexical 'stripping' of the Possessor argument from its original external position in unergative construction. Instead, we postulate the mechanism of "splitting" of the internal argument, or Possessor raising, in the case of OE verb alternations, which is the reverse of Bennis' "stripping" option. We believe that our view is compatible with the approach presented in Pylkkänen (2000) for Finnish stative psych predicates.

1. Introduction

Both psych-adjectives and psych-verbs have been subjected to close scrutiny recently. Inspired by Bennis (2002), we are going to modify and extend further his "complex/simplex ergativity" approach to psych-predicates. In particular, we will concentrate on Polish Object Experiencer verbs illustrated in (1):

- (1a) Janek zdumiał/rozbawił Marysię swym dziwnym zachowaniem.

 'John amazed/amused Mary (with-default) his strange behaviour-Instr.'
- (1b) Dziwne zachowanie Janka zdumiało/rozbawiło Marysię. 'John's strange behaviour amazed/amused Mary.'

Bennis (2002: 27) suggests that OE psych verb constructions with a Theme argument in the subject position, as in (1b), result from the lexical 'stripping' of the Possessor argument from its original external position in unergative construction of the

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type exemplified in (1a). We agree with Bennis that (1b) is an ergative structure, but contra Bennis we argue that (1a) is also a derived structure and not the basic one, namely that (1a) results from splitting of the internal argument of V, or in other words raising of the Possessor out of the internal argument to the Spec of light v. In other words, we claim that (1a) is a result of some kind of "splitting" of the internal argument of V, which is the reverse of Bennis' "stripping" option. Our paper is organized as follows: in section 1 we briefly summarize the basic tenets of Bennis's theory concerning adjectives (in particular MP adjectives and psych adjectives) and demonstrate that it also finds motivation for Polish. In section 2 we concentrate on psych adjectives derived from OE verbs and compare them to the so-called complex ergative adjectives identified for Dutch by Bennis. In section 3 we turn our attention to psych verbs and speculate about the possible derivation of OE predicates that would overcome the problems that we encounter in Bennis's theory. The logics of our discussion leads us to the conclusion that Pesetsky's T/SM restriction lacks empirical bases and is incompatible with our structural analysis of OE psych verb constructions. Given a fairly consistent cross-linguistic behaviour (or rather 'misbehaviour') of OE predicates, we suspect that our observations based on Polish might also be valid cross-linguistically and hope that this paper will be a small step in the long journey to uncover the mystery of psych predicates.

2. Bennis's three-way classification of adjectives

Following Cinque's (1991) division of adjectives into ergative and unergative ones for Italian and German, Bennis motivates a similar distinction for Dutch and extends it further to include the third type, namely complex ergative adjectives. The three types are illustrated in (2):

- (2a) unergative adjectives: Jan is aardig 'John is nice';
- (2b) simplex ergative adjectives: Dat is duidelijk 'That is clear';
- (2c) complex ergative adjectives: Dat is aardig (van Henk) 'That is nice of Henk'.

To illustrate briefly the motivation for such a division, let us present here one of the several tests for ergativity, which was originally developed by Stowell (1987). It is the so-called as-clause test exemplified for English in (3): the gap in as-clauses always corresponds to an underlying sentential object:

- (3a) As I said e, he will not come.
- (3b) *As e demonstrates his innocence, John was abroad.

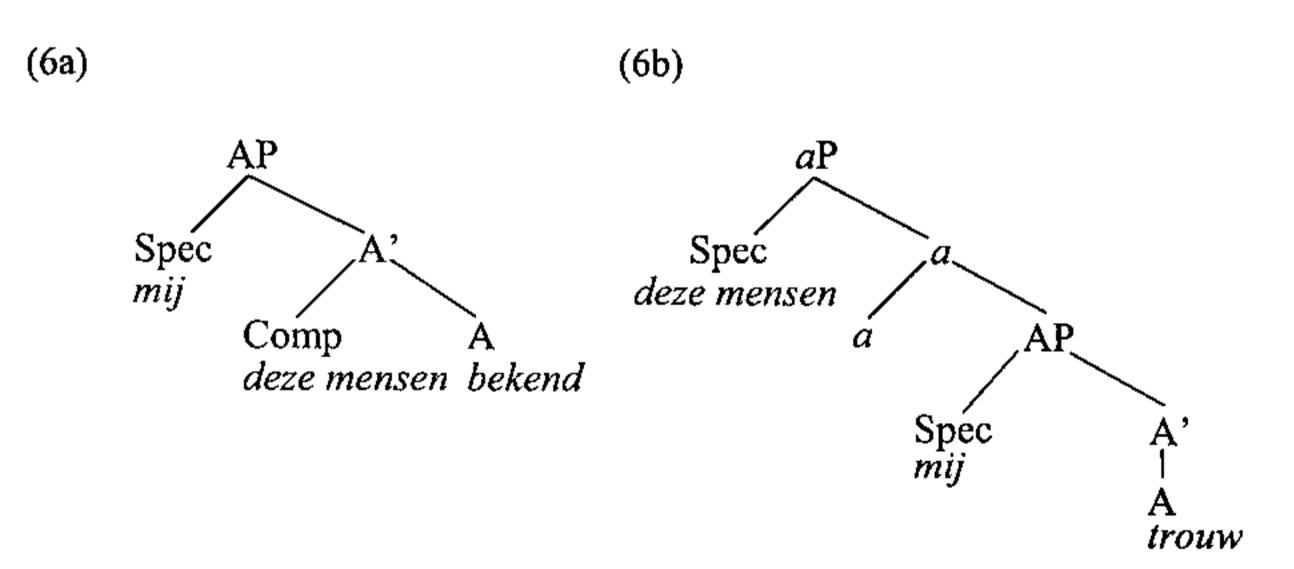
This was confirmed by Bennis (2002: 30) for Dutch (4a-b) and can be replicated for Polish (4c-d):

- (4a) Zoals ik zei e, houdt Jan van slakken. 'As I said, John likes snails.'
- (4b) *Zoals e zijn onschuld bewijst, had Jan geen slacken gegeten. 'As proves his innocence, John had not eaten snails.'
- (4c) Jak powiedziałam e, on nie przyjdzie.
- (4d) *Jak e potwierdza jego niewinność, Jan był za granicą.

The same construction can be used to make a distinction between ergative and unergative adjectives. The contrasting English sentences in (5a-b) (after Cinque 1987 and Bennis 2000) have their Polish, also contrasting, equivalents in (5c-d):

- (5a) As is well-known e, Małysz has won the prize.
- (5b) *As e is surprising, Mary has not yet left.
- (5c) Jak e jest wiadome, Małysz dostał nagrodę.
- (5d) *Jak e jest dziwne, Maria jeszcze nie wyjechała.

If, following Bennis, we adopt structural parallelism between A- and V- projections, the structure of unergative adjectives has an adjectival light shell aP on top of the bare AP in contrast to simplex ergative adjectives, which have only a bare AP. Thus the structures for the ergative and unergative adjectives are as in (6a) and (6b) respectively:



Assuming and proving the distinction between unergative and ergative adjectives, Bennis accomodates the class of Mental Property adjectives (henceforth MP-adjectives) in this division. MP-adjectives assign an essential property to the mind or character of a sentient individual (Possessor), or to an action performed by this individual (eventive Theme). Instead of quoting Bennis, we illustrate this in (7) and (8) for Polish, both for simplicity reasons but also strategically, because in so doing we want to motivate a similar distinction for Polish:

- (7) Jan jest miły/dziecinny/sprytny. 'John is nice/childish/clever.'
- (8) To, że Jan kupił mi kwiaty było miłe/dziecinne/sprytne (z jego strony). 'That John bought me flowers was nice/childish/clever (of him).'

Bennis suggests that the Dutch equivalents of (7) and (8) are reminiscent of the active/passive alternation. First, we can say that the external argument of the adjective in (7) can be optionally realized in an optional PP z jego strony/ze strony Jana etc. Second, thematically both the subject in (7) and the possessor or complement of the N in the optional PP in (8) refer to the possessor of the adjectival property. This leads to the conclusion that the Polish phrase ze strony NP (or its Dutch equivalent van-PP) is a counterpart of the optional agentive przez-phrase (or its equivalents in other languages) in the adjectival domain and that the relation between (7) and (8) is parallel to the relation between active verbs and passive verbs. On these grounds Bennis coins the notion of complex ergativity, which characterizes these constructions, which have an a-layer with no external argument generated in the specifier of a. He thus ends up with a third representation in addition to what we have in (6a-b), namely a representation for examples like that in (8), which he calls a complex ergative structure, and which is presented in (9):

(9) Complex ergative

The next step is to accommodate in the assumed classification the so called psych-adjectives, i.e. adjectives that denote emotions and are often derivationally related to Experiencer verbs. Psych-adjectives, like MP-adjectives, form basically two classes (Bennis 2000: 36-48). Either the Experiencer is expressed as the subject of the adjectival predicate, as illustrated in (10), or the Experiencer is realized in a PP headed by the preposition dla 'for', as in (11). The Experiencer argument assuming the form of dla-PP may also be implicit.

(10) Jan jest zły/wściekły/zakochany/szczęśliwy/dumny.
'John is angry/furious/in love/happy/proud.'

(11) To jest żenujące/interesujące (dla Jana). 'This is embarrassing/interesting (for John).'

Bennis suggests that SE-adjectives are unergative, whereas OE-adjectves are complex ergative adjectives stripped of their external argument. We believe that this approach in general is attractive, but that it needs some modifications. In particular we would like to challenge the treatment of OE adjectives and then the corresponding OE verbs on a par with complex ergative MP adjectives stripped of the external argument.

3. Psych adjectives

As we have already established, MP-adjectives and Psych adjectives are capable of occurring both with an external argument (showing regular unergative pattern) and with a Theme-argument (i.e. not a Possessor of the adjectival property in Bennis's terminology) assigned to subject position. The latter are treated as unergative adjectives which are stripped of their external argument and interpreted as complex ergative cases, which license aP-AP configuration with no external argument available in the specifier position of the aP. Bennis's structural division of adjectival class into simplex ergative adjectives, unergative adjectives and complex ergative adjectives, when adopted for Polish, could be summarized in (12), (13), and (14) respectively.

- (12) To jest jasne, oczywiste, prawdopodobne, trudne. (AP without an a-projection) 'This is clear, obvious, likely, difficult.' (simplex ergative adjective)
- (13a) Jan jest mily, podly, dziecinny. (an a-projection with an external argument) 'John is nice, mean, childish.' (unergative MP adjective)
- (13b) Jan jest zły, dumny, wściekły. (unergative Psych adjective) 'John is angry, proud, furious.'
- (14a) To jest mile, podle, dziecinne (ze strony Jana). (an a-projection without an external argument)

 'This is nice, mean, childish (of John).' (complex ergative adjective)
- (14b) To jest irytujące, nobilitujące, zaskakujące (dla Jana). 'This is irritating, ennobling, surprising (for John).'

The details concerning the unergative class of MP and SE-adjectives (i.e. the class in 13) are discussed in Klimek and Rozwadowska (2003). We conclude there that SE-psych adjectives do not alternate, as opposed to MP-adjectives such as those in

- (13a). An additional argument for the distinction between SE-adjectives and unergative MP-adjectives is related to different interpretations of clausal partciples in constructions exemplified in (15):
- (15a) Jan był dumny odbierając puchar.
 John was proud receiving the cup
 'John was proud to receive the cup.'
- (15b) Jan był miły przynosząc Zosi kwiaty.
 John was nice bringing Zosia-Dat flowers
 'John was nice to bring flowers to Zosia.'

In (15a), containing a SE-adjective dumny 'proud', the participle sets the temporal background for John's state of being proud. In (15b), containing an MP-adjective mily 'nice', there is an implication that John was nice in bringing flowers to Zosia. All these contrasts lead to an obvious conclusion that the class of SE psych adjectives is different from unergative MP-adjectives. Let us now look at the distribution of OE-adjectives, which according to Bennis are like complex ergative MP-adjectives. Our main objective now is to compare the two classes of adjectives. Therefore, we will try to put OE adjectives in structures similar to those that motivated the treatment of MP adjectives as complex ergative adjectives. Let us first look at (16):

- (16a) *To, że przyszedł było irytujące ze strony Jana. 'That he came was irritating (of John).'
- (16b) To, że Jan przyszedł było irytujące (dla mnie). 'That he came was irritating (for me).'
- (16c) To jest interesujace (*ze strony Marysi) (dla mnie). 'It is interesting (*of Mary) (for me).'

We can see that OE adjectives (as opposed to MP adjectives like mily, lojalny, podly, rozsądny, etc.) do not allow the expression of the Possessor of the adjectival property in the phrase that accommodates such Possessor of MP adjectives. The optional prepositional phrase that appears internally is the optional Experiencer, but not the alleged "stripped" external argument. Let us play with these adjectives some more. In (17) and (18) we try to find a structure that could qualify as Bennis's fully-fledged unergative structure with an appropriate external argument available for "stripping", after which we would have the remaining Theme in the subject position and the optional Possessor realized internally. Nothing of the sort seems to be possible:

(17a) Marysia jest fascynująca (dla mnie). 'Mary is fascinating (for me).'

- (17b) Inteligencja Marysi jest fascynująca (dla mnie). 'Mary's intelligence is fascinating (for me).'
- (17c) *Marysia jest fascynująca swoją inteligencją.
 'Mary is fascinating (with-default) her intelligence.'
- (17d) *Inteligencja jest fascynująca ze strony Marysi. 'Intelligence is fascinating on the part of Mary.'
- (18a) Anna jest zniewalająca (dla mnie). 'Ann is overwhelming (for me).'
- (18b) Uroda Anny jest zniewalająca (dla mnie). 'Ann's beauty is overwhelming (for me).'
- (18c) *Anna jest zniewalająca swoją urodą (dla mnie).

 'Ann is overwhelming (with-default) her beauty-Instr (for me).'
- (18d) *Uroda jest zniewalająca (dla mnie) ze strony Anny.'Beauty is overwhelming (for me) on the part of Ann.'

Although superficially OE-adjectives resemble complex ergative structures, on closer investigation they turn out to be different. In contrast to MP-adjectives, they do not allow the argument which is the possessor of the adjectival property to be realized in the internal PP ze strony NP. Only the Experiencer (who is not the possessor of the property expressed by the adjective) can be optionally realized in the dla-PP. This seriously contradicts the treatment of OE adjectives as complex ergatives stripped of their external argument. Also it is difficult to find the unergative structures with the external argument available for stripping and the Theme that could remain after stripping. Before we turn to Polish OE verbs in the next section let us emphasize that extending the complex-ergative analysis to OE verbs on the basis of the complex-ergative nature of OE adjectives related to them finds little justification if the latter do not seem to be complex-ergative structures in the first place, which we have demonstrated above.

4. OE verbs

According to Bennis, OE psych verbs are ergative (as opposed to various current unergative views on OE verbs, including Pesetsky 1995, Grimshaw 1990, Arad 1988, Reinhart 2001 a.o.), though not unaccusative (contra Belletti and Rizzi 1988). Let us look again at Polish Object Experiencer verbs in (19):

¹ For detailed arguments in favour of the treatment of psych verbs as ergative, though not unaccusative, the reader is referred to Bennis (2002). Bennis considers his approach to be in between the unaccusative analysis of Belletti and Rizzi (1988) and the unergative analysis of others.

- (19a)Janek zdumiał Marysię dziwnym zachowaniem. 'John amazed Mary (with-default) his strange behaviour-Instr.'
- Dziwne zachowanie Janka zdumiało Marysię. 'John's strange behaviour amazed Mary.'
- Marysia była/*została zdumiona dziwnym zachowaniem Janka. 'Mary was/*got amazed (with-default) John's strange behaviour-Instr.'
- *Marysia była/została zdumiona dziwnym zachowaniem przez Janka. '*Mary was/got amazed (with-default) strange behaviour-Instr by John.'

Dutch examples of typical psych verb constructions are listed after Bennis (2002) in (20):

- Dat gedrag amuseert/ontroert/verbaast/interesseert/ ...mij. (20a) 'That behaviour amuses/moves/astonishes/interests/ ...me.'
- Jan amuseert/ontroert/verbaast/interesseert/ ... mij met dat gedrag. John amuses/ moves/astonishes/interests/ ...me with that behaviour.'

The Dutch equivalent of (19b) (cf. sentences such as those in 20a) is viewed by Bennis as complex ergative, with two internal arguments: the Experiencer generated in [Spec, V'], and the Theme in complement position. At the same time (19a) or (20b) would be regular transitive constructions with an external argument generated/merged in [Spec, ν]. Bennis presents two convincing arguments to show that constructions of the type exemplified in (20a) and (21) below are ergative. He claims that the two arguments of the ergative construction behave as internal arguments with respect to inversion in Dutch. The inversion of arguments in Dutch is restricted to cases in which the surface subject is an underlying direct object. Bennis claims that the fact that the construction in (21) allows this kind of inversion constitutes a strong argument in favour of a derivational approach.

- Dat die voorstelling mij amuseert (21a)'that that performance me amuses'
- (21b)Dat mij die voorstelling amuseert 'that me that performance amuses'

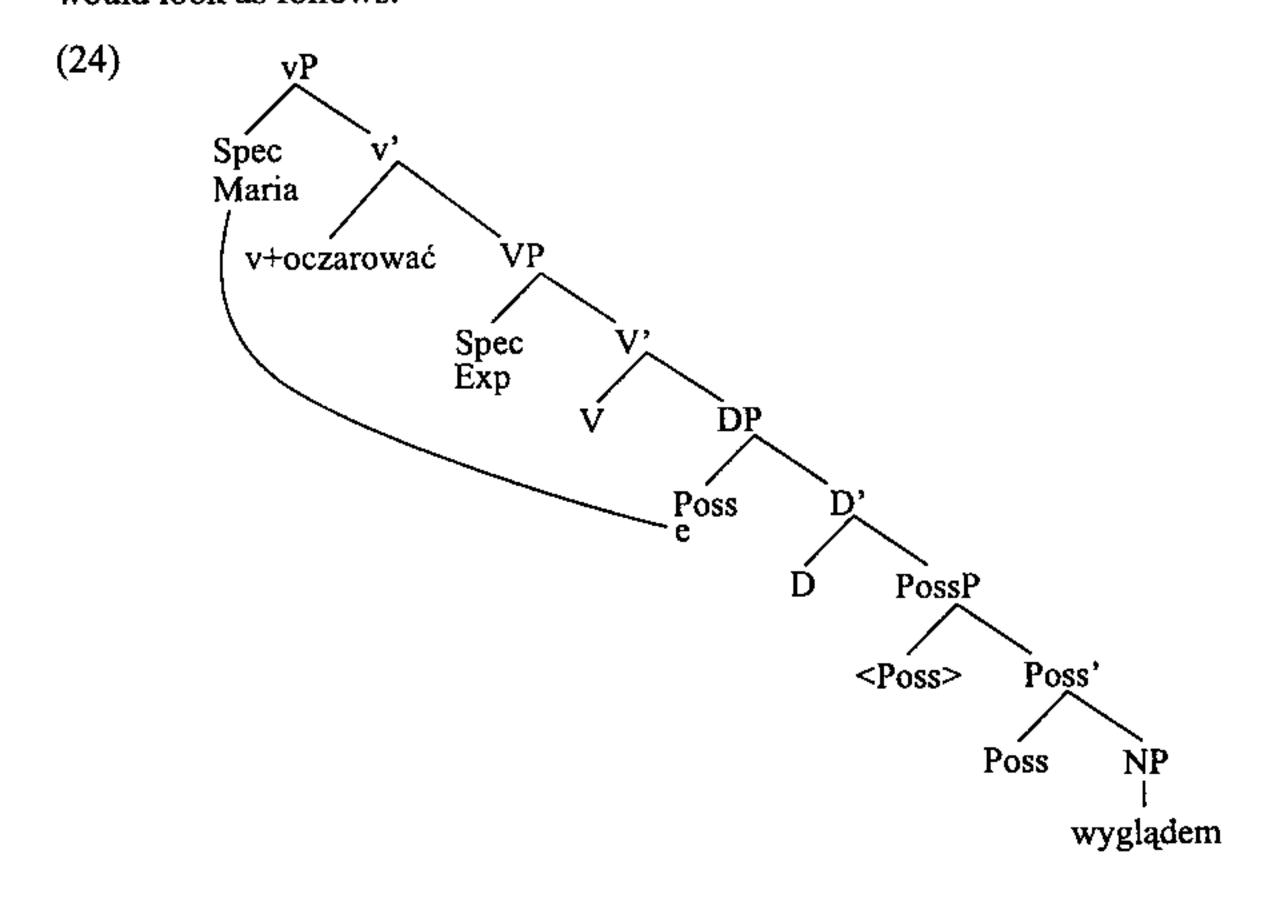
The second argument put forward by Bennis concerns the appearance of psych verbs in as-clauses. In the examples in (22) the Experiencer is lexically realized, and there is a gap in the subject position. As originally proposed by Stowell (1987), the gap in as-clauses corresponds to a sentential underlying object (the subject/object of a passive or the subject/object of an ergative verb) but never to an underlying subject.

- Zoals e mij telkens weer verbaast, houdt Jan van slakken. (22a)'as me again-and-again surprises, loves John snails'
- Zoals e mij altijd irriteert, wast Jan zijn handen niet voor het eten. (22b)'as me always irritates, washes John his hands not before dinner'

From the discussion thus far, we can conclude that the external argument in OE psych verb ergative construction is not originally projected in the subject position but that it is derived by movement from the object position.² However, the two arguments quoted above do not seem to provide evidence for the 'stripping' option yet. Stripping of the external argument was motivated in the case of complex ergative MP adjectives by the distribution of the Possessor of an adjectival property. We expect (as Bennis himself emphasizes) that the external argument of the unergative construction can be added internally in an optional PP. This does not seem to be available, at least in Polish:

*To zachowanie denerwuje mnie ze strony Janka. (23)'That behaviour irritates me on the part of John.'

All the above objections seem to conspire to undermine the 'stripping' mechanism for the account of OE psych verbs, at least in Polish. Therefore, we would like to suggest instead that (19a) is a result of what we call splitting of the internal argument or, to put it in different words, Possessor-Raising from the complement of V to [Spec, v]. Following Adger (2003), we assume that there is an optional functional category, specified as part of the Hierarchy of Nominal Projections, and that Possessors are Merged in the specifier of this category. The structure that we postulate for ergative OE psych verb constructions would look as follows:



² Bennis concludes that Burzio's generalization is empirically wrong in view of the strong empirical motivation for two structural claims, namely that OE psych verbs have no External argument and that the Experiencer object receives structural, objective Case.

Our analysis provides good grounds to account for the question McGinnis (2000) raises with respect to the Italian constructions illustrated in (25a) and (25b). She claims that in both cases the subject is originally generated in the specifier of a light causative verb. We believe that there is a structural difference between these sentences and that in (25a) the external argument is originally projected in the Spec of ν , while in (25b) it is raised to Spec of ν from the internal position in OE psych construction to get the causative interpretation.

- (25a) Maria mangia la mela. 'Maria is eating the apple.'
- (25b) Questo preoccupa Gianni. 'This worries Gianni.'

Our generalization (tentative at this point) holds with respect to those OE psych verbs which allow the possessor and attribute/activity to be expressed either as a single noun phrase in the subject position or as two distinct constituents, with the possessor expressed as subject and the attribute expressed in the instrumental phrase. This is the pattern illustrated in (19), more examples of which are presented in (26). In this alternation there is a possession relation between the subject of the verb and the internal instrumental phrase, which functions as Cause/Subject Matter of emotion.

- (26a) Zirytowało mnie zachowanie Jana. 'John's behaviour irritated me.'
- (26b) Jan zirytował mnie swym zachowaniem. 'John irritated me (with-default) his behaviour-Instr.'
- (26c) Oczarował mnie wygląd Marysi. 'Mary's appearance enchanted me.'
- (26d) Maria oczarowała mnie swym wyglądem. 'Mary enchanted me (with-default) her appearance-Instr.'
- (26e) Zaintrygował mnie głos Marysi. 'Mary's voice intrigued me.'
- (26f) Marysia zaintrygowała mnie swym pięknym głosem. 'Mary intrigued me (with) her beautiful voice-Instr.'

In the above discussion we have focused on the variant with the split Cause/Subject Matter argument, where the Possessor is raised out of the DP. Given the ergative structure assumed here, there is of course the other option – that of moving the whole internal DP, which results in the variant illustrated in (19b).

5. Further implications

Such a treatment of OE alternation (which is the reverse of Bennis's view-of OE verbs and adjectives) seems to provide a more straightforward account for various facts related to the argument distribution characteristic of OE verbs. On Bennis's account, for instance, we would expect the following unattested options (cf. also the example in (23)):

- (27a) *Zachowanie zirytowało mnie ze strony Jana. 'Behaviour irritated me on the part of John.'
- (27b) *Wygląd oczarował mnie ze strony Marysi. 'Appearance enchanted on the part of Mary.'
- (27c) *Głos zaintrygował mnie ze strony Marysi. 'Voice intrigued me on the part of Mary.'

If, as we claim, OE verbs are dyadic and the Possessor in the subject position is an independent external argument, we do not expect that such an option as in (28) would be available. On the other hand, we have a natural explanation for the coreference facts concerning the anaphoric possessive pronoun swój/a/e and the unavailability of an independent, non-coreferential Subject Matter argument on top of the Causer:

- (28a) #Marysia oczarowała mnie pięknem tego filmu. 'Mary enchanted me (with-default) the beauty-Instr of this film.'
- (28b) #Janek zdenerwował mnie artykułem w gazecie.

 'John irritated me (with-default) the article-Instr in the newspaper.'

On the most natural reading, examples in (28) rule out the Possessor relation between the external subject and the internal SM/Theme argument. If, however, we force this kind of relation, then they become better:

- (29a) Marysia oczarowała mnie pięknem swojego nowonakręconego filmu. 'Mary enchanted me (with-default) the beauty-Instr of her new film.'
- (29b) Janek zdenerwował mnie swoim artykułem w gazecie. 'John irritated me (with-default) his article-Instr in the newspaper.'

Also, it seems to us that the above distributional facts are closely related to the much discussed problem of what is called the T/SM restriction and may shed new light on it. Pesetsky (1995) observed an intriguing puzzle posed by Experiencer verbs. On the basis of English, he presents evidence that these verbs select both the Cause and the Subject Matter θ -roles; however, these two roles can never be realized together, as exemplified for Polish in (30):

- (30a) *Artykuł (z)denerwował Marka na rząd. 'The article annoyed Mark at the government.'
- (30b) *Film (za)fascynował Basię muzyką.

 'The film fascinated Barbara with music.'
- (30c) *Wykład (za)interesował studentów językoznawstwem. 'The lecture interested the students with linguistics.'

It has been argued by Pesetsky (1995) that the subject argument with the ObjExp class always bears the role Causer, whereas the object argument with the SubjExp class always bears one of two entirely distinct roles, which Pesetsky renames Target of Emotion and Subject Matter of Emotion. Pesetsky (1995: 56-63) sorts out the semantic nature of these roles. To see the distinction, Pesetsky compares the pair anger/angry illustrated in (31):

- (31a) Bill was very angry at the article in the Times. [Target]
- (31b) The article in the Times angered Bill. [Causer]

The truth conditions of these two sentences are noticeably distinct. For (31a) to be true, Bill must have evaluated the article, and he must have formed a bad opinion of some aspect of it. In other words, Bill must find the article objectionable in some respect. (31b) is rather different. Bill might be mad at the article in (31b), but (31b) is also appropriate even if Bill thinks the article is splendid. The article does cause Bill to be angry, and possibly angry at someone or something, but he is not necessarily angry at the article itself. In Pesetsky's terminology, Causer is always associated with the subject position, and Target is associated with the object position. These two roles cannot occur in the same construction which follows from Pesetsky's T/SM restriction.

However, it seems to us that the T/SM restriction is no longer necessary if we assume the ergativity approach to psych verbs. What is specific about constructions Pesetsky discusses with respect to T/SM restriction, is that there is no Possessor relation between subject and internal phrases. Pesetsky does not take into consideration psych verb constructions which display possession relation between a Causer in the subject position and Subject Matter expressed as an instrumental phrase as presented in (32) for alienable possession and in (33) for inalienable possession:

- (32a) Piotr zdenerwował mnie swoją wiadomością. 'Peter irritated me (with-default) his message-Instr.'
- (32b) Zdenerwowała mnie wiadomość (Piotra). 'Peter's message irritated me.'
- (33a) Wojtek zafascynował mnie swą elokwencją. 'Wojtek fascinated me (with-default) his eloquence-Instr.'

(33b) Zafascynowała mnie elokwencja Wojtka. 'Wojtek's eloquence fascinated me.'

Both Cause and T/SM argument can freely co-occur, creating one causative molecule. Simply the causative interpretation emerges as a result of raising. Whatever stays inside the VP has the Target/Subject Matter interpretation. The implication that psych-verbs are dyadic (and not triadic) makes the T/SM restriction unnecessary and is furthermore strengthened by the complementary distribution of the Cause/Subject Matter arguments with psych-verbs.

Similarly, in example (34) the same Cause argument changes its semantic value, depending on the aspectuality of a given construction and may well be interpreted as Subject Matter and Cause of the emotion.

- (34a) Sytuacja zmartwiła mnie. [Cause] 'The situation made me worried.'
- (34b) Sytuacja martwi mnie. [Subject Matter] 'The situation worries me.'

The difference that we observe between (34a) and (34b) hinges on the aspectual distinction, since example b is a non-prefixed imperfective, unbounded variant, and example a is a prefixed perfective, bounded variant. The relationship between the causative interpretation and aspect deserves a separate study. For our purposes it only illustrates the observation that the Cause/Subject Matter distinction is not as clear-cut as all T/SM restriction accounts seem to entail.³

³ The 'splitting' hypothesis (or Possessor raising) advanced here is compatible with Pylkkänen's (1999) treatment of Finnish stative psych predicates. She distinguishes between stative and non-stative psych verbs in Finnish (both causatives). It is not the purpose of this paper to advocate a similar distinction in Polish (but see Biały (in progress)). Our intention is only to argue for the 'splitting' account of those psych verbs that appear in the alternation discussed here.

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