# HOW TO {make} THINGS {be <some way>} OR {do <things>} – MODELLING DANISH, SWEDISH, AND BULGARIAN OBJECT CONTROL AND OBJECT PREDICATIVE STRUCTURES

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# КАК ДА {накараме} НЕЩАТА ДА {бъдат <някакви>} ИЛИ ДА {правят <неща>} – ОПИТ ЗА МОДЕЛИРАНЕ НА ДАТСКИ, ШВЕДСКИ И БЪЛГАРСКИ СТРУКТУРИ С ОБЕКТЕН КОНТРОЛ И ПРЕДИКАТИВ КЪМ ОБЕКТА

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Abstract: The article presents a synchronic, contrastive, generative X-bar model of Danish, Swedish, and Bulgarian causative and resultative structures of the object control and object predicative types in the context of language interference among Bulgarian students with L2s such as English, German and other widely-spoken European languages studied in Bulgarian high schools. Via a semantic role-based way to model corpus examples in parallel in the three languages, an argument is made that providing a parallel with Bulgarian would be a more effective way to teach the difference between these constructions.

Keywords: Bulgarian, Danish, Swedish, object predicative, object control

Резюме: Статията представя синхронен, съпоставителен, генеративен модел в рамките на X-bar теорията на датски, шведски и български каузативни и резултативни структури от типа обектен контрол и предикатив към обекта. Анализът е провокиран от наблюдения на интерференция в междинния език на студенти, изучаващи датски и шведски, които са изучавали като втори език английски, немски и други европейски езици в рамките на българското средно образование. Посредством паралелен модел на конструкциите в трите езика, основаващ се на анализ на корпусни примери чрез семантични роли, се подкрепя становището, че правенето на паралел с българските конструкции е много по-прецизен начин да бъде преподадена разликата между скандинавските резултативи и каузативи.

*Ключови думи:* български, датски, шведски, предикатив към обекта, обектен контрол

# 1. Background

Basic object predicative and object control constructions in the Scandinavian languages, in this article, Danish and Swedish, come in several distinct flavours, most often coupled with the verbs MAKE (Sw. göra, Da. gøre), GET (Sw., Da. få) and LET (Sw. låta, Da. lade), excluding, for the moment, resultative verbs with an incorporated adjectival root. Normally, these should pattern rather neatly with their (metalinguistically mentioned) English counterparts make, get, and let. However, in my experience of teaching Scandinavian languages to Bulgarian university students, their early pretheoretic model of distinguishing between Scandinavian object predicative constructions (of the shape [GÖRA/GØRE [NP AP]]) and object control constructions (of the shape [FA (TIL) AT/T [NP VP]]) is often met with interference from the L2 acquired in their studies prior to university, the said L2 most often being English or German (with a few exceptions, students have also studied other European languages, such as French or Spanish, to a reasonably high level, usually B2). This interference nearly always converges on the causative light verb MAKE, or its equivalent in the respective other L2, being used for both structures, to the effect of levelling them as follows:

- 1. Sw. Jag gjorde honom glad.
  - Da. Jeg gjorde ham glad.
    - I make PRET him happy
    - 'I made him happy.'
- 2. Sw. \*Jag gjorde honom att njuta av semestern.
  - Da. \*Jeg gjorde ham at nyde ferien.
    - I make PRET him to enjoy vacation DEF.
    - 'I made him enjoy the vacation.'

The obvious culprits are the various Agent- or Cause-introducing MAKE- or CAUSE-structures in languages such as German (3, 4), French (5, 6), and of course, English (7, 8). The examples below all mean the same thing, respectively *I made him happy* (3, 5, 7) and *I made him enjoy the vacation* (4, 6, 8).

- 3. Ich machte ihn glücklich.
- 4. Ich machte ihn den Urlaub genießen.
- 5. Je l'ai fait heureux.
- 6. Je lui ai fait prendre plaisir aux vacances.
- 7. I made him happy.
- 8. I made him enjoy the vacation.

In what follows, an attempt will be made to distinguish between the two structures in Scandinavian via a comparison with the same Bulgarian sentences:

- 9. Направих го щастлив.
- 10. Накарах го да се наслади на ваканцията.

A further comparison will be made with the structure of lexical resultatives (or factitives) and causatives, with examples extracted from *KorpusDK* (Asmussen et al. 2007), *Korp* (Borin et al. 2012), and *The Bulgarian National Corpus* (Koeva et al. 2012).

The layout of the article is as follows: part 1 has already given a brief introduction to the issue at hand. Part 2 gives a deeper, theoretical background information on resultatives and causatives; part 3 consists of an analysis of the structures in Swedish, Danish, and Bulgarian, their representation and thematic marking; and part 4 is a summary of the results.

### 2. Causatives and resultatives: a brief background

As previously mentioned, Bulgarian students of Swedish and Danish initially often conflate the verbs  $f\mathring{a}$  and  $g\ddot{o}ra/g\ddot{o}re$  in the object control (Sw.  $f\mathring{a}$  X att < verb>, Da.  $f\mathring{a}$  X til at < verbum>, i.e. make X < verb>) and the object predicative (Sw.  $g\ddot{o}ra$  X < adjektiv>, Da.  $g\ddot{o}re$  X < adjektiv>, make X < adjective>) constructions. The mistake itself is usually not persistent, but has cropped up on several occasions, which is what provoked the author's interest in delving further into the topic.

The article will be a case study of these structures with reference to their semantic role distribution and general lexical semantics. A further study of these errors coupled with a corrective application of the strategy proposed in this article may be warranted, but this is an endeavour beyond the scope of the current work.

The term resultative refers to the object predicative construction, with the simplified structure [x MAKE [y <adjective>]], analysed here as a singular, joint predication and theta assignment operation, akin to English deadjectival labile verbs like *redden/blacken* or Da. *forbedre, forskønne, glæde*, Sw. *förbättra, försköna, glädja*, and Bg. *nodoбрявам, разкрасявам, радвам* – in English, *to (make) better, to embellish, to gladden/make happy*. The verb MAKE and the adjective jointly and simultaneously assign the Theme theta role to the object of MAKE, which is also the subject of the adjectival predicate. They have a change-of-state reading in the Theme object – with the result being denoted by the adjective.

The term causative refers to the object control construction, with the simplified structure [x MAKE [y <verb>]], analysed here as a two-step predication and theta assignment operation, akin to object control verbs like Eng. force, cause, convince, Da. tvinge, formå, overtale, Sw.

tvinga, förmå, övertala, Bg. принуждавам, карам, убеждавам. They have, perhaps unsurprisingly, a causative reading, where an initial Cause (the higher subject) exerts some force on a lower semantic subject and syntactic object (in syntactic causatives this can be an Agent, Recipient, or Theme, which are the potential c-selected internal arguments of the lower verb; in lexical causatives a curious picture emerges), that then initiates a second event with its own arguments. The Theme object of MAKE/CAUSE is coindexed with the controlled PRO subject of the lower predicate; this makes for a two-step predication and theta assignment operation, first by the lower predicate, then by the higher predicate.

The central claim that will be made throughout this text is that these constructions are structurally not identical, even in English – mainly due to the distribution of thematic roles – and this will be demonstrated by comparison with Bulgarian.

The central assumption behind the analysis is Baker's Uniformity of Theta Assignment Hypothesis (Baker 1988), whereby identical (or similar) theta roles are assigned in identical deep-structural positions cross-linguistically. Unlike Baker's thematic hierarchy (Baker 1988 and 1997), here it is assumed that Locations are assigned lower than Themes, hence prior to them, Themes prior to Recipients (with Patients and Experiencers being a prominent subtype of Recipient), and Recipients prior to Agents – a hierarchy largely borrowed from Jackendoff (1990, 258) and Grimshaw (1990), and strongly influenced by Ramchand (2008, 193-194). This is paired with a stringent version of the Theta Criterion, whereby all semantic relations of a predicate must be assigned on a one-to-one basis (one role per one argument per sub-event), either directly or via last-resort Preposition Insertion; and its corollary, whereby a Determinative Phrase may not be left without an assigned theta role; also, theta assignment happens under a locality of theta-marking condition in spec,XP (by Ramchand 2008).

Throughout the analysis, a layered approach to vP derivation is assumed, with each  $v^0$  or  $V^0$  denoting a particular verbal sub-event. For the sake of brevity, only an impoverished representation of the deep structure of the layered vPs will be presented. The generalised phrase structure assumed to exist above vP employs the following idiosyncrasies, as seen in figure 1:

- both matrix and subordinate clauses have a generalized X-bar clause structure, of the CP-TP-vP shape, corresponding to the functionalist semantic-grammatical-pragmatic/contextual layering of the clause (Heltoft 2016, 80);
- the thematic layer consists of a vP shell structure based on a causative conception of lexical semantics;
- small clauses are marked as VP in figure 1, but rootP, predP, or eventP conceptions are also possible, as they are functionally broadly synonymous;

- all verbal arguments bar Locations are conceived of as a subject of their separate causal-chain sub-events; Locations only identify a result state;
- optional levels of analysis include phrases such as AgrSP and TP in split-IP theory, AgrIOP and AgrOP in split-vP theory, as well as NegP and auxP above vP;

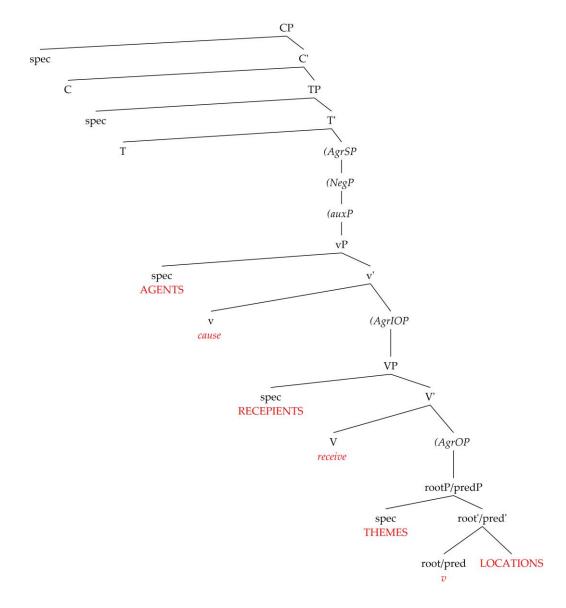


Fig. 1

An important remark is that many of the structures (the non-branching nodes) do not project unless required either lexically or by the Numeration for the sentence. For instance, unaccusative verbs do not project a higher, accusative-marking vP and AgrOP layer because of their inability to assign Accusative Case, and as such, they don't project an Agentive (or broadly Causative) specifier position spec,vP; NegP and AuxP are broadly verbal projections and as such always select for vP complements, but are nonetheless dependent on the Numeration for the sentence in question. The Agr structures are assumed on the basis of previous work

necessitating their usage in the description of Bulgarian clitic phenomena and AcI constructions in Scandinavian.

## 3. Resultatives and causatives in Swedish, Danish, and Bulgarian

The following section will present resultative and causative projections, starting from the syntactic type and moving towards the lexical type.

### 3.1. Resultatives

The lexical verb *make* (in basic English examples such as *Picasso made this sculpture*) can be lexically represented as the causative structure [x <sub>CAUSE</sub> [y <sub>EXIST</sub>]]. It is a morphologically complex free morpheme and does not require head movement from a lower position to interface with Phonetic Form. It assigns two semantic relations – the Creator and the Effected Entity, hence two theta roles Agent and Theme, and takes two arguments, similarly to close synonyms such as *create*. The theta roles are locally assigned – Agent to the specifier of the upper, causative [vP CAUSE], and Theme to the specifier of the lower [vP EXIST] – i.e., the direct internal argument.

However, in the case of the light verb  $_{MAKE}$  in the semantic structure [x  $_{MAKE}$  [y <adjective>]], the question arises concerning how the assignment of the Theme theta role takes place – namely, what predicate assigns the role? An example tree structure is shown below, in fig. 2.

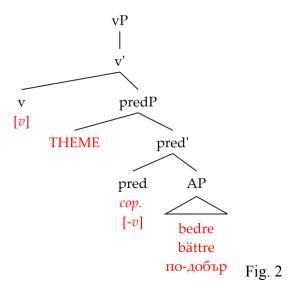
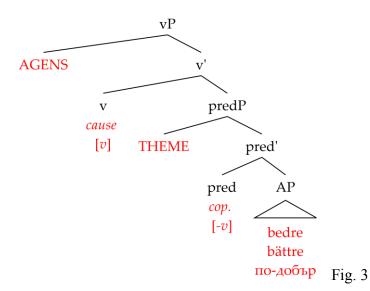


Fig. 2 displays the representation of a monadic stative adjectival predicate – *be better* – where the Theme is assigned to the specifier of the predP / rootP. Adjectival predicates of this sort can be considered unaccusative, which requires a stative Theme argument. These won't be analysed here, but the syntactic structure will be required for the analysis of resultatives.

Examples 13 through 19 are dyadic resultative predicates – in this case, equivalents of *make better*, and their structural representation is given in fig. 3.

- 13. Den anden præmis for [disse] reorganiseringer er, at de gør verden bedre the second premise for these reorganisations is that they make world. DEF better 'The second premise for these reorganisations is that they make the world better.'
- 14. Hun har bestemt ikke gjort tingene bedre she has definitely not made things.DEF better 'She has definitely not made things better.'
- 15. De arbetar också för att göra världen bättre they work also for to make world. DEF better 'They also work to make the world better.'
- 16. Cheferna tycker att de gjort allt de kan för att göra situationen bättre Bosses<sub>.DEF</sub> think that they done<sub>.SUP</sub> all they can for to make situation<sub>.DEF</sub> better 'The bosses think that they have done all they can to make the situation better.'
- 17. 10 начина да направим света по-добър 10 way.<sub>PL</sub> to make.<sub>PR.PL.1P</sub> world.<sub>DEF</sub> better '10 ways to make the world better.'
- 18. Как да направя ситуацията по-добра how to make PR.SG.1P situation DEF better 'How to make the situation better.'



This resultative structure contains a small clause, alternatively an adjectival predP in its lowest level (which is identical to the stative from fig. 2). In this structure, theta marking of the subject of vP happens in the specifier of the causative light verb MAKE or CAUSE, assigning an Agentive Cause interpretation. However, where is the Theme theta role assigned?

By the Theta Criterion, no DP can be assigned more than one semantic role; hence, the question arises whether it is the causative light verb that assigns the theta role, or the adjectival predP. A comparison with verbs such as *forbedre*, *förbättra*, *noдобрявам*, i.e. *make better*, could shed light on the question.

In syntactic resultatives the light verb is morphologically independent, and hence, does not require movement of the AP to take on its verbal qualities. However, in dyadic, lexical resultatives such as *forbedre*, *förbättra*, *noдобрявам*, i.e. *improve*, a very similar, albeit still different picture emerges:

- 19. Men vi vil også se på, hvor vi kan forbedre tingene yderligere but we will also see at where we can better things.DEF further 'But we will also see where we can improve things further.'
- 20. Og som sådan tror vi, den kan forbedre verden and as such believe we it can better world.DEF 'And as such, we believe it can improve the world / make the world better.'
- 21. Man kan förbättra världen på en massa olika sätt.

  one can better world<sub>.DEF</sub> in a mass different<sub>.PL</sub> ways

  'One can improve the world / make the world better in many different ways.'
- 22. Nu måste vi jobba ännu hårdare på att förbättra situationen [...] now must we work even harder on to better situation. 'Now, we must work harder to improve the situation.'
- 23. Направих ли нещо днес, с което да подобря света? do.Aor.sg.1P Q something today, with which to better.pr.sg.1P world.masc.def 'Did I do something to improve the world today?'
- 24. ще дам всичко от себе си, за да подобря ситуацията в тази държава will give all from myself, for to better.PR.SG.1P situation.DEF in this country

'I will give it my all to improve the situation for this country.'

Lexical resultatives such as these are instances of single predication – but it is noteworthy how similar their structures are to the structure of a [x MAKE [y <adjective>]] predicate. Even more important is the fact that semantically, these two structures are almost entirely synonymous, and thus, share an identical lexical deep structure, as demonstrated in fig 4:

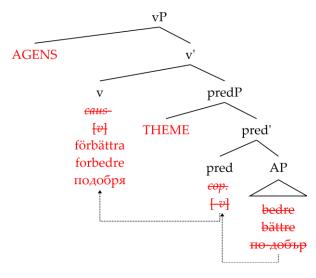


Fig. 4

Here, these verbs are analysed as consisting of a morphologically bound causative morpheme, represented as  $\emptyset$ , as in other deadjectival or denominal verbs. This morpheme is phonologically dependent and requires phonetic content in order to interface with Phonetic Form and be pronounced. Its phonetic requirements force an A-to-V(-to-v) head raising operation so that the entire verb may interface with PF and be pronounced. The causative morpheme is realised in a number of different ways: a prefix (for-,  $f\ddot{o}r$ -, pas-, no-), by way of stem-vowel mutation, stem suppletion, or a combination of these realisations,

In fig. 4, the adjectival head  $A^0$  raises up from AP to pred<sup>0</sup> in predP and then up again to the suffixal light verbal head in small  $v^0$  in VP. This shows that even in lexical resultatives, there is an instance of single, joint predication and theta assignment simultaneously by the light verb and the adjectival predP. According to Sportiche (1998, 384) and Grimshaw (2005, 87), it is possible for syntactic resultatives to slightly differ in meaning from their lexical counterparts, which is not the case for the examples analysed. What is important in the case of syntactic vs. lexical resultatives is that at the level of Deep Structure, they are syntactically identical, but morphologically distinct. In syntactic resultatives, the light verb is morphologically independent and hence does not require movement of the  $A^0$  head to take on its verbal qualities.

The differing realisations of the causative morpheme are explained by way of different historical layers of lexicalisation (Alexiadou 2016); synchronically, they are analysed as Late Lexical Insertion pronunciations of the A-to-v head movement scheme. *Svenska akademiens grammatik* (Teleman, Hellberg, and Andersson 1999, vol. 2, 529) gives a number of other compound examples, which are lexicalised postsyntactic compounds: *friskförklara ngn : förklara ngn frisk, färdigbygga ngt : bygga ngt färdigt, möjliggöra ngt : göra ngt möjligt, lyckliggöra ngn : göra ngn lycklig, snedvrida ngt : vrida ngt snett.* 

A curious example, owed to Prof. Kristin Mellum-Eide, is the Scandinavian sentence  $Han\ gjorde\ det\ kallt/koldt/kaldt\ i\ rummet/værelset/rommet\ (Sw, Da., Nor.), literally <math>He\ made\ it\ cold\ in\ the\ room$ , where the pleonastic object det, i.e. it, appears to be inserted in a theta-marked position by the analysis in the article so far. Svenonius (2007, 96) proposes a solution whereby the pronoun is inserted to satisfy an EPP subject feature of the lower predP; the Location role is assigned by the preposition i in  $[PP\ P\ i][DP\ rummet]$ .

### 3.2. Causatives

Examples 25-27 are syntactic causatives; fig. 5 demonstrates an impoverished account, again due to temporal and spatial restrictions – with the extremely basic semantic decomposition of [x CAUSE/MAKE [y < verb>]].

- 25. Det er en kamp at få ham til at lave lektier.
  - it is a fight to get him to do homework.PL
  - 'It is a struggle to make him / get him to do his homework'.
- 26. Vi kämpar genom tårar med att få honom att göra läxor.
  - we fight through tears with to get him to do homework PL
  - 'We struggle through tears to make him / get him to do his homework.'
- 27. Не мога да го накарам да си пише домашните.
  - NEG can,pr.sg.1P to MASC.ACC.CL make.pr.sg.1P to REFL.DAT.CL write.pr.sg.3P homework,pl.def

'I can't make him do his homework.'

The idealised structure in fig. 5 (on the next page) presents a solution to an issue outlined further down in the text.

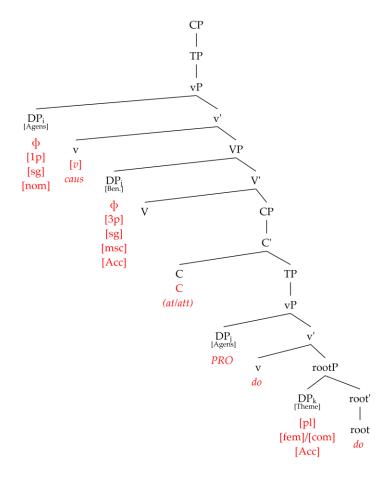


Fig. 5

It is immediately obvious that the causative contains a more detailed structure at least up to the level of TP – but why should that be so?

The answer is, again, the Theta Criterion – if the object of <sub>CAUSE</sub> and the subject of <sub>DO</sub> are the same constituent at DS, they would be assigned two theta roles – Agent and Patient – thus violating the Theta Criterion. Instead, I propose a solution with a non-overt CP layer for both English and Scandinavian, as well as for Bulgarian, permitting the second theta role to be assigned to the <sub>PRO</sub> subject of the subordinate clause.

In this analysis, the causative verb – Sw., Da.  $f\mathring{a}$ , and Bg.  $\kappa apam$  – is synonymous with object-control verbs such as *force*, *cause*, and *convince*. This matrix causative assigns three theta roles, and hence takes three arguments:

- Cause or Agent in spec,vP;
- Patient in spec, VP;
- Proposition to its clausal complement.

The clausal complement in syntactic causatives itself contains a predicate – and by the analysis above, this is an instance of second predication and theta role assignment, and the verb in the subordinate clause assigns at least one theta role according to the theta hierarchy.

In the theoretical, idealised model in fig. 5, the object of the matrix predicate is assigned a Patient or Beneficiary theta role (both being types of Recipient role) in spec,VP in the matrix vP, hence the matrix CP. A theoretical lower Agent subject, coindexed with and thus semantically corresponding to the matrix Recipient, gets its role assigned by the lower predicate complex. Depending on what kind of verb DO is, further roles may be assigned. Examples 25 through 27 can be explored here – the Patient role is assigned to the pronominal arguments Da. ham, Sw. honom, Bg. 20, all meaning him; the subordinate Agent role is assigned to spec,vP, i.e. the subject of Da. lave, Sw. göra, meaning do, and Bg. nuwe, i.e. write, and the Theme role is assigned to the objects Da. lektier, Sw. läxor, Bg. домашните.

Apart from Theta Criterion violations, an additional argument for the clausal status of the lower predicate is the appearance of an infinitival complementiser  $att / til \ at$  (a different analysis is possible for Danish at based on facts from Neg<sup>0</sup> distribution, but this will not be touched upon here). The Bulgarian examples contain a null complementiser (akin to the Scandinavian infinitival) with a  $\partial a$ -particle in the head of TP (not pictured for space considerations); further reading on the status of Bulgarian  $\partial a$ -sentences can be found in Radoev (2022) and Simov and Kolkovska (2017).

Dyadic lexical causatives in the compared languages, on the other hand, have a simpler causative structure where an Agent or Cause initiates a causal change-of-state chain in a thematically lower object (usually a kind of Recipient or Theme), similarly to the causal change of state of the resultatives described above – after all, it was proposed that adjectival predP be analysed as a stative (not inchoative) unaccusative, hence incapable of assigning Accusative Case and requiring upward movement of its DP subject for Case Filter reasons.

Fig. 6 (on the next page) gives the structure of the example Scandinavian sentence Sw. *Pekka ska fälla trädet /* Da. *Pekka skal fælde træet* (Eng. *Pekka will fell the tree*).

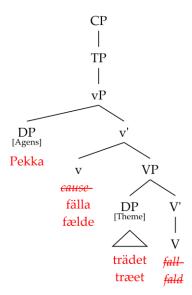


Fig. 6

There is nothing controversial about the structure, as this is just an example of the well-known causative-inchoative alternation of unaccusative labile verbs in English. The structure of the Bulgarian verb pairs *поваля-падна* and *повалям-падам* (*fell-fall* in perfective and imperfective aspect, respectively) is identical, and shall not be given any further attention here.

However, a comparison with lexical causatives yields some very important results as regards causatives with an Agentive logical subject of a lower unergative predP in verbal roots such as *laugh*, Sw. *skratta*, Da. *grine*, Bg. *cmen ce*:

28. Иван разсмя Мария. CP Ivan CAUS.laugh.AOR.3P.SG Maria ΤP 'Ivan made Maria laugh', vPliterally 'Ivan laughed Maria' DP [Agens] 29. Иван яі разсмя. Иван VP Ivan v FEM.ACC.CL CAUS.laugh.AOR.3P.SG разсмее DP [State Holder] [яі разсмее] 'Ivan made her laugh', Мария VP нея literally 'Ivan laughed her' do смее 30. Sw. \*Johan skrattade Maria. Da. \*Johan grinede Maria. Eng. \*John laughed Maria Fig. 7

This curious property of Bulgarian is the lexical fact of **lexical** causatives alternating with unergatives – a situation mostly unknown even to languages with suffixal light verbs such as Japanese *-(s)ase* that otherwise do allow syntactic causativisation of unergatives via incorporation (Harley 1996, 9). The example of *разсмея*, *разплача* (causative versions of *laugh* 

and *cry*) seems to have an underlying thematic hierarchy of Agent > Agent > Theme, with the Theme *cmax* or *nnau* incorporated into the unergative verbal root of *cmea ce*, *nnaua*. This has the semantic structure [x cause [y [make <laugh>]]], followed by a transformational incorporation of the *laugh* object to the verbal head make, yielding an intermediate, simplified structure Maria make-laugh, i.e., Bg. *Mapua ce cmee*, Sw. *Maria skrattar*, Da. *Maria griner*, Eng. *Maria is laughing*. The causative light verb in the head of the small vP then requires the movement of the incorporated make-laugh complex to it, in order to be pronounced at PF, resulting in the sentence *Ubah pascma Mapua*, which is grammatical, unlike the English and Scandinavian examples, which do not show this alternation of causatives and agentive unergatives. The explanation for this apparent contradiction cannot be explored further here, but it opens up an area for further research.

# 4. Summary and results

According to this analysis, syntactic and lexical resultatives are instances of singular, simultaneous dyadic predication and theta assignment, while syntactic causatives assign one theta role more than either resultatives or lexical causatives, in two separate instances of predication and theta role assignment, with syntactic causatives in Swedish, Danish and Bulgarian involving an overt, nonfinite CP.

There are a number of lexical causatives in Bulgarian, with the *pa3*- prefix used in a broadened version of its inchoative meaning *begin*, alternating with unergatives: *pa3cmen*,  $pa3n\pi a va \sim cmen ce$ ,  $n\pi a va -$  where the assumed underlying thematic hierarchy is Agent<sub>1</sub> > Agent<sub>2</sub> > Theme. Scandinavian lexical causatives are restricted to instances where the secondary subject (the understood subject of a lower rootP) is only a Theme – Da. *fælde*, Sw. *fälla*, which is the well-known causative-inchoative alternation, attested also in Bulgarian.

Overall, syntactic causative and resultative constructions in Bulgarian, Swedish and Danish pattern quite well with one-another, differing from English with respect to the lexicalization of the light verb in the syntactic versions of the constructions. As such, while teaching Swedish and Danish (and Norwegian, presumably) to Bulgarians, an explicit comparison with the Bulgarian constructions needs to be made early on.

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