# (Anti-)Causativity and the morphophonology-semantics tension

Diego Gabriel Krivochen

diegokrivochen@hotmail.com

## Abstract:

In this paper we will analyze the causative-anticausative opposition from the point of view of semantic construal, and how syntax builds structures that convey that information with minimal entropy. We will also analyze the tension that arises when a putatively universal semantic construal, (narrow-)syntactically instatiated, is to be materialized using limited, language-specific resources. This will touch on the subject of language typology, and its importance to describe the observable effects of this tension between semantics and morpho-phonology, from a GEN(eration)-EVAL(uation) approach, a common feature in Optimality Theoretical syntax. Consequences for comparative linguistics will be suggested, with particular emphasis on Slavic, Germanic, and Romance languages.

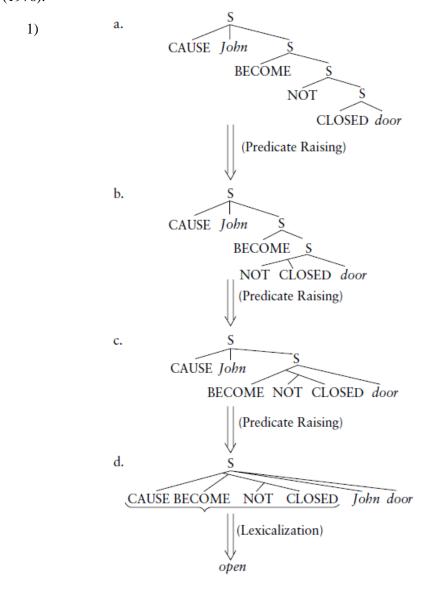
Keywords: causativity; conceptual primitives; syntax-semantics interface; cycles

#### 1. Introduction:

The phenomenon of causativity has been analyzed from various perspectives: purely syntactic, as the projection of certain functional heads (little v; Voice); purely semantic, in a logical approach to natural language semantics (within neo-Davidsonian semantics and Montague grammar); purely morpho-phonological (the affixal expressions of causative meanings and alternations); and mixed, interface explanations. Interface explanations involve more than one of the aforementioned components, and, unlike pure accounts (e.g., Chomsky, 1995 for syntacticocentric explanations), they tend to resort less to intra-theoretical stipulations, and approach the problem from the convergence of two -or more- systems. For instance, Shibatani & Pardeshi (2001) focus on the syntax-morphology interface, classifying causative constructions in (a) lexical or synthetic, (b) morphological, and (c) syntactic or periphrastic kinds, all three configuring stages of a continuum following Givón (1980). This account takes into consideration the Lexicon-Morphophonology road. but tends to neglect the Logical Form of causatives, as well as semantic considerations in a broader sense (for instance, the role roots play in causative constructions, and whether causativity is part of the meaning of the root or of the whole construal, as we will try to problematize below). Schäfer (2008), to whom we will return below, takes a different stance, taking into account semantic issues from a syntactic perspective. His focus is set on the causative-anticausative alternation (with which we will deal here) from a syntactic point of view, but devotes a whole chapter (Chapter 3) to the analysis of the semantics of Datives in anti-causatives and Appl heads. The same perspective, although focused mostly on applicatives, is adopted by Pylkkänen (2008), partly based on previous neo-Davidsonian LF proposals by Kratzer (1996): while distinguishing neo-Davidsonian semantics from neo-Davidsonian syntax (such that a neo-Davidsonian approach to LF does not entail a neo-Davidsonian approach to narrow syntax), Kratzer introduces a new head, Voice, which Pylkkänen takes instead of Chomsky's (1995) v ("little v"), the latter being also present in Marantz (1984) -a

foundational work of the VP-internal subject hypothesis in which  $\nu$  comprises broader values, related to any verbal suffixation including derivational suffixes- as a head comprising the LF-interpretable dimension *causativity* and introducing an external argument, besides hosting  $\varphi$ -features and signaling phase boundaries in more recent work (for example, Chomsky, 2008).

The distinction between VP and a higher functional node introducing an external argument, a causator of the event denotated by VP, has also been advocated for from a Generative Semantics perspective. Culicover & Jackendoff (2005: 96) mention works by McCawley, Ross, and Lakoff, arguing that causative constructions involved an underlying structure containing a CAUSE primitive which, after successive instances of a transformation dubbed *Predicate Raising*, CAUSE, and event-related primitives (e.g., BECOME), are lexicalized and surface as a single item. The derivation Generative Semantics proposed for a sentence like [John opened the door] goes along the lines of (1), taken from Culicover & Jackendoff (2005: 97), in turn borrowing it from Shibatani (1976):



Notice that, in Generative Semantics, there were no constraints as to the kind of complex structures that could be lexicalized: we have here a causative primitive, an eventive, change-of-state primitive, and a result predicate plus a negative operator all materialized by a single lexical item. As argued by Lakoff & Ross (1973), conditions apply to a set of derivational steps, not to a single representation level (unlike Principles in the GB model), which means that conditions apply all throughout the lexical derivation, not to the final product. Generative Semantics was deeply derivational, and assumed a syntactic structure for semantic construal, an idea we will develop in our own way in the rest of the present work. At this respect, it is useful to compare our perspective with that of Culicover & Jackendoff (2005: 20, fn. 8):

"Algebraic combinatorial systems are commonly said to "have a syntax". In this sense, music has a syntax, computer languages have a syntax, phonology has a syntax, and so does Conceptual Structure. However, within linguistics, "syntax" is also used to denote the organization of sentences in terms of categories such as NP, VP, and the like. These categories are not present in any of the above combinatorial systems, so they are not "syntax" in this narrower sense."

In this paper, and in general within our theory, "syntax" is used in the wider sense, for two main reasons: to begin with, there is no compelling evidence that the "syntactic mechanisms" taken alone (without considering the elements involved, just the combinatory algorithm) vary from one system to another, except that the units affect the algorithm, in case that actually happens; and also, an adequately wide formalization of syntactic mechanisms could reveal deep facts about the structure of more than a single cognitive system. Therefore, *semantic construal* is *syntactic* in nature (as is a musical phrase; or an equation), insofar as it is structured.

In a related perspective, within Relational Semantics, Mateu Fontanals (2002), claims that VP is a purely *transitional* node between a *causative* node that licenses an external argument (which he calls R), and a *locative* node (which he calls r), and takes no arguments. All arguments are selected by R and r, roughly equivalent to Mainstream Generative Grammar's (MGG) vP and PP (notice the similarity between Mateu's proposal and Jackendoff's Conceptual Semantics, in which the dynamic primitive GO, corresponding to VP, takes a locative structure [PATH [PLACE]] as its complement, and is in turn the complement of a causative primitive CAUSE). The importance of distinguishing an eventive projection from a causative projection will be obvious throughout the paper, and has also been stressed by the aforementioned authors. Separating *cause* from *event* is essential in order to account for alternations in which causative meaning is involved (e.g., alternating ergatives), with or without a materialized *agent*. R takes an initiator as its specifier, and an event (VP, in Mateu Fontanals' terminology, T) as its complement, and r takes two arguments as well, in localist terms, a *figure*, and a *ground*. Those roles, as in Hale & Keyser's (2002) strongly componential theory, are read off the syntactic configuration at LF, which is partly a function (in the technical sense) of syntactic structure.

Our point of departure will be the theory outlined in considerable depth by Kosta (2011: 287), who follows Schäfer (2008: 142) in distinguishing four kinds of causative events (taking into account causative alternations of non-causative roots, like ergative roots):

- Agentive (murder, assassinate, cut...)
- Externally caused (destroy, kill, slay...)
- Internally caused (blossom, wilt, grow...)
- Cause unspecified (break, open, melt...)

Schäfer assumes that there is an encyclopedic entry associated with each root, and it is that entry that defines whether a root admits an alternation or not. It is to be noticed that this implies a distancing from traditional Distributed Morphology approaches (Halle & Marantz, 1993; Embick & Noyer, 2007), in which the encyclopedia (called "C-List") is distinguished from the set of roots ("A-List") insofar as roots are made up of formal UG-given features (Embick & Noyer, 2007; Panagiotidis, 2013). Like Schäfer, and Kosta, we will assume that roots are indeed semantic substance, but, contrarily to Schäfer (2008: 142), we will not claim that this semantic substance determines the availability of alternations (which would mean constraining the lexicon a priori without principled reasons), but that alternations are, in principle, always available, for all roots, and coinage processes (including factors of socio-historical nature) are not to be confused with system-internal conditions; a root's categorial and further semantic properties in a specific sentence are determined by their local relation with distributionally specified semantically interpretable heads<sup>1</sup> (see Krivochen, 2012: 90 ff. for a development of this idea within Radical Minimalism). Our proposal, as will be obvious below, is closer to Kosta's (2011) full development, more componential than Schäfer's: we would like to propose an alternative semantic classification of cause functors, which only partially overlaps with Kosta's:

- External cause (CAUSE<sub>EXT</sub>): particularly noticeable in [let] / [make] light V structures, includes an initiator and an affected object (prototypical transitivity)
- Internal cause (CAUSE<sub>INT</sub>): there is no affectedness. Corresponds roughly to the *Activity* Aktionsart (atelic, durative, intransitive)
- Environmental cause (CAUSE<sub>ENV</sub>): there is affectedness but no initiator in the sense of volitional agent. The event is licensed by stative conditions of the environment

Interestingly enough, the semantics of causativity is not directly related to the morpho-syntax of transitivity, in a related claim to Kratzer's (1996), insofar as there is no uniform mapping between syntax and semantics (a situation we have referred to in past works as "opaque interfaces"). Consider, for example:

a. The telephone moved (because it has an internal device that allows vibration)b. The rock moved down the mountain (because there is an environmental condition that licenses this movement, such as an inclined plane)

Bothe examples in (2) display causativity but no transitivity (as we are dealing with one-place predicates), and they differ in the source of the cause: in (1 a) the cause of the event *move*(telephone) is an internal device, *inherent* to the argument (therefore, corresponding to what we have called *internal cause*). (2 b), on the other hand, displays an event *move*(rock) licensed by

<sup>1</sup> In other words, "The complex whole is the output of simple processes and interactions, rather than the result of complex specifications.", as Boeckx (2010: 26) puts it. See also De Belder (2011) for an attempt to eliminate syntactic categories as primitives of grammatical theory.

an external condition, but not an agent (external causator). The syntactic structures corresponding to unergative Vs are the same, displaying a vP-VP dynamics<sup>2</sup>, but the thematic interpretation of the element in Spec-v is not always that of an agent, as is the case of (2 a-b). The determination of causativity types, then, goes beyond what syntactic nodes can tell us assuming bi-univocal mapping syntax-semantics. As should be obvious by now, we are already distinguishing different levels of analysis: on the one hand, causativity is a semantic notion, read off at LF from a syntactic-semantic construal; whereas transitivity is a morphological phenomenon, often related to that of affectedness. In concrete terms, an external initiator in a syntactic-semantic construal affects an internal argument via an event denoted by the verbal root. In this construal, the affected object (which includes possession, change of state/location, etc.) receives an accusative morphological exponent. Needless to say, causativity and affectedness do not always coincide, since Unergative construals do not license the position for an internal argument in the syntax unless those internal arguments are further specifications of a cognate nominal root, as we will see below. Causativity is taken here to mean only the presence of a causator, either internal, external, or environmental, without implying any of the other notions. These distinctions, which might seem anti-economical, prove useful when considering concrete data, and provide the bases for a highly componential interface-based system.

Causativity, as an interface phenomenon, does not escape the general economy tendency to minimize Spell-Out when possible, that is, reduce the number of overt elements liking form and meaning. This does not mean relying on a rich skeleton of phonologically null functional projections (as cartographical approaches do), but preferring *synthetic* (Shibatani & Pardeshi's (a) and (b) groups) forms to *analytical* forms (Shibatani & Pardeshi's (c) group), as we can see in the following examples:

- 3) a. John caused the metal to go flat by hammering it (periphrastic causative)
  - b. John hammered the metal flat (resultative construction)
- 4) a. El doctor García atiende a Juan (no overt indicator of cause)
  - 'The doctor García sees Juan'
  - b. Juan se atiende con el doctor García (overt SE clitic, *causative* in Masullo's 1992 terms) 'Juan SE sees with the doctor García'

Juan goes to Dr. García's

This phenomenon has received the label of "lazy-Spell-Out" in Krivochen & Kosta (2013), and is a form of a general principle of economy, which Chomsky (2013) has formulated, informally, as "less is better than more", as a sort of aproristic approach to economy. If this minimization of overt material is to be taken seriously, then deviations from the synthetic case must be justified in interface terms, particularly, in *semantic terms*: an analytic syntactic construal conveys some extra meaning, absent in the synthetic version (e.g., SE in Spanish, resultatives in Germanic languages, among many other options). This has as a consequence that periphrastic causative constructions are, when confronted with a non-periphrastic version, rendered awkward by most speakers (when they are not directly ungrammatical, examples and judgments are taken from Kosta, 2011: 240), as if there was extra information, as we can see in (5 a) and (5 b):

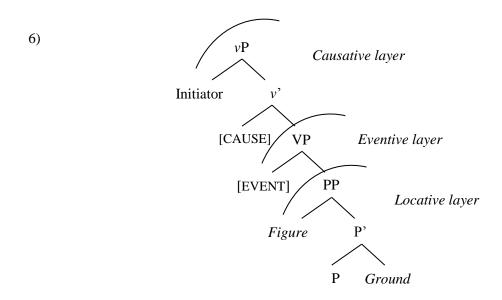
5) a. Karel upustil dopis

=

<sup>&</sup>lt;sup>2</sup> That is, [Agent [[CAUSE] [[DO] √movement]]], with conflation of the root onto both DO and CAUSE.

- 'Karel dropped the letter'
- b. \*Karel dal upustit dopis
  - 'Karel gave fall the letter'

In this case, it is not the presence of an overt external causator in the event *fall*(letter) that influences grammaticality, but, we argue, the violation of a local morphological rule allowing conflation, following Hale & Keyser (2002). The structure of a causative construction we assume is Hale & Keyser's (as well as Mateu Fontanals' 2002, see also Pylkkänen, 2008 for a related view but assuming a different clausal skeleton, as we will see below), distinguishing three layers within the verbal domain (cf. Kosta, 2011: 251, who claims, following Larson, 1988 and related work, that internal arguments are arguments of V, not of P):



According to Mateu Fontanals (2002: 33), the nodes *cause*, *event*, and P (the latter corresponding to the semantic primitive Location) can adopt two values each (not intended to be interpreted in the sense of features to be valued, but as possibilities in a Relational Semantic structure, to be linguistically instantiated)<sup>3</sup>:

- [+ cause] → external / internal cause
- [- cause] → possession (morphologically transitive, but *uncaused*)
- $[+ event] \rightarrow dynamic V$
- [- event] → stative V
- [+ location] → terminal coincidence relation
- [- location] → central coincidence relation

<sup>3</sup> Notice that the primitives, and the values they adopt, are strikingly similar to those predicted by Generative Semantics during the '60, and also used by Jackendoff within his Conceptual Semantics framework (Jackendoff, 1987, 2002).

Causativity, then, is not an isolated phenomenon, but the result of *compositionality* within local cycles at the C-I interface, once the whole construal has been transferred by phase assuming that a causative domain, comprising an initiator, a theme, and a location, configure a fully interpretable object and can thus be taken by the interfaces to be assigned an interpretation (Krivochen, 2012).

Assuming the clause structure in (6), a periphrastic causative construction would be the result of spelling out *both* [cause] and [event] as different terminal nodes. Since most Romance, Germanic, and Slavic languages allow the possibility of V-to- $\nu$  conflation (or incorporation, depending on the framework we assume), the periphrastic causative is a suboptimal candidate for evaluation, as the non-periphrastic construction conveys (in most cases) the same information in less material. This, of course, when the *cause* node (syntactically represented as a  $\nu$  head) spells out as a light verb, of the kind of:

• Make, let, do, cause, take, give, let (and their respective forms in any language)

Two key features are to be taken into account here: first, that the competition between candidates is won by the non-periphrastic forms *only* when it exists as an acceptable form in a language L. For instance, in the following competition, the EVAL function selects the periphrastic CC, as the non-periphrastic CC is ungrammatical when conveying the same meaning:

- 7) a. John made the baby cry
  - b. Piotr pracoval (Cz.)
  - c. \*John cried the baby
  - d. \*Piotr<sub>i</sub> mu<sub>i/i</sub> pracoval (Cz.)

Arguably, the structure [the baby cry] is an event in itself (comprising an emission Unergative verb, [cry], and an external argument, the one who "emits cry", [the baby]), and cannot be tampered with once completed and, possibly, transferred to C-I, if the interface is somehow sensitive to propositional forms. That is why all additional material is added *on top* (namely, the light V *make* and the external initiator *John*). The full representation of (7 a) would then go along the lines of (8):

8) [John [CAUSE<sub>EXT</sub> [the baby [CAUSE<sub>INT</sub> [DO [ $\sqrt{\text{cry}}$ ]]]]]]

Notice that we are assuming (following Hale & Keyser, 2002; Mateu Fontanals, 2002, among others) that unergative verbs, of the kind of "cry" (a "manner of emission" V) are lexically derived through conflation of a root onto V, and the complex  $\{V, \sqrt\}$  onto v. These structures do not admit the configuration (7 c) insofar as we are dealing, as we said, with *two* events, both of which are caused:

9) a. <u>Main Event</u>: [John [CAUSE<sub>EXT</sub> [*phase*]]] b. *Phase*: [the baby [CAUSE<sub>INT</sub> [DO [√cry]]]]

Arguably, each sub-derivation is derived in parallel (following the "derivational cascades" theory of Uriagereka, 2002), and unified at the interfaces: semantically, a global complex causative construction is read off the construal: notice that [John] is an external causator of the event [the baby cry], whereas [the baby] is an internal causator of the event of crying. The impossibility of unifying both causative phases into a single "John cried the baby" follows, we think, from the

framework outlined so far, if phases are taken to be impenetrable to external operations once completed. Phonologically, attention is paid to the impossibility of tampering with *phases* once completed, thus making conflation of {CAUSE, {DO,  $\sqrt{cry}$ }} onto {CAUSE} in the main event impossible. It is to be noticed, although we will come back to this below, that there is a tension between semantics and morpho-phonology that generates these interpretations as interface results: semantics operate globally (as we argued in Krivochen, 2013) at the level of determining the propositional information to be conveyed, plus implicatures derived from specific Topic / Focus projections; whereas phonology, as has been argued since Bresnan (1971) operates in a cyclical, local fashion, recently revived within the *phase* framework: from syllable stress assignment rules to word-level or phrase-level materialization. Taking into consideration the representation in (8), the ungrammaticality of the Czech examples follows straightforwardly if one acknowledges the fact that there is no structural position where to Merge the applicative clitic [mu] (in terms of Kosta, 2011: 253), and it is therefore a superfluous element in the representation at LF.

The second issue to take into account, in a related note, is the composition of the phonological lexicon, that is, how verbs "get their names" (Harley, 2003). In our framework, verbal Spell-Out (i.e., the phonologically visible "verb") is the result of either:

- a) *Conflated p-signatures*: the phonological form of a {D} structure is copied onto the closest higher empty / phonologically defective node (e.g., a clitic or affix). There is *no movement*, but, if the reader prefers, *percolation* of phonological features, following Hale & Keyser's (2002) requirement of *strict complementation* for conflation. This occurs with "heavy" roots, that is, roots that instantiate substantial conceptual information. In a word, *only these verbs involve roots*.
- b) *Default Spell-Out*: only very primitive and semantically light verbs. A p-signature is inserted in an empty [event] node when no conflation process has occurred to prevent PF crash. The piece inserted depends entirely on the syntactic configuration in which {v/event Ø} appears, giving us a strongly compositional system. A list of such verbs include, to our understanding, GO, BE, PUT, TAKE, ARRIVE (see above), LEAVE, DO, EMIT (and their equivalent in other languages<sup>4</sup>). These verbs hardly have any meaning apart from the structure (which is meaningful in itself): in GB traditional terms, they would not impose s-selectional restrictions to co-occurring arguments (as the pair [John came] / [Winter came] would prove). Our claim is that there are *no roots involved* here, but purely contextual interpretative issues, in the sense that the verbs in the list above are materializations of the semantic primitives detailed by Mateu Fontanals in different configurations.

Coming back to the "lazy Spell-Out" claim ("prefer synthetic candidates"), consider for instance the following paradigm (from Kosta, 2011: 246):

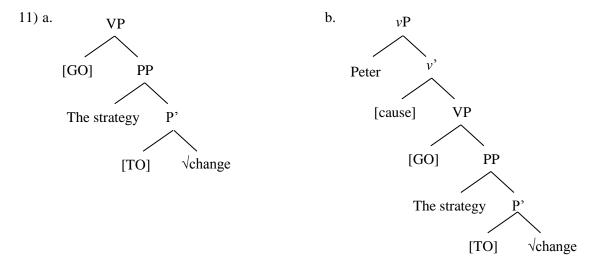
10) a. Petr změnil strategii (Cz.)

\_

<sup>&</sup>lt;sup>4</sup> Ancient Greek verbs GO and BE, for example, differed only in *word stress*: εἰμὶ ([be], with both individual and stage level predicates as complements) and εἷμι ([go]), which is evidence in favor of our position that they are really Spell-Out of the same eventive node (V / T, depending on the terminology we take) in different syntactic configurations (e.g., central / terminal coincidence, distribution of cognitive Figure and Ground), provided that stress assignment takes place, as DM claims, post-syntactically.

- 'Peter changed the strategy'
- b. Strategie změnila
  - 'The strategy changed'

The presence of an overt external causator of the event *change*(strategy), namely [Petr], in (10 a) is explained by the fact that it increases the informational load in a relevant way: the identity of the external initiator is revealed, and, moreover, it is thematic (i.e., leftmost within the TP). (10 b), on the other hand, presents an anticausative (ergative, as the event is a change of state) alternation on the light of the absence of a *materialized* agent. This does not mean that, in the phenomenological world, the event is actually uncaused, but that the speaker has chosen to present it that way, possibly, because the identity of the causator is not pertinent. Truth conditions vary from (10 a) to (10 b), as a person could hold (10 b) true, but deem (10 a) false if, for instance, the causator was not Peter. Semantically, the root *requires* causation in this particular construal (V + NP [strategy]), as a strategy does not contain an internal, inherent capability for change, change must always come from the *outside*: crucially, this does not mean that there is *no semantic cause*, just *no overt external causator*. A comparison of both structures might help clarifying the scenario we propose (following Mateu Fontanals, 2002; also Jackendoff, 2002), but see Section 2 below for discussion:



Both construals depict a dynamic (event primitive [GO]) change of state (positive location primitive [TO]), but (11 b) includes an external causator, licensed in turn by the  $\nu$  head on top of the eventive node. In both cases, the root [ $\sqrt{change}$ ] conflates, following the Head Movement Constraint, towards the highest node, through all intermediate heads, which contribute to the final semantic interpretation of the root in its final syntactic destination. Thematic roles, within the construal, are read off at LF from the configuration, following the strongly componential theory of Hale & Keyser (2002); Chomsky (2001); and Krivochen (2012): as we have argued elsewhere, thematic roles have *no entity* in a purely generative syntactic component, which consists only on a generative algorithm, but are read off from a configuration in which DPs establish local relations with the procedural nodes *cause* and P. Considerations of theoretical economy, and logical consistency within the theory prevent us from accepting the thesis that thematic relations have any relevance for the generative engine, unless enriched with interpretative protocols (which belong to the interfaces, by

definition). Therefore, we do not fail to overcome the criticism made by Jackendoff (1987), among others, to the orthodox Theta-Criterion exposed in Chomsky (1981), in two relevant senses:

- An argument can have more than one theta-role (e.g., in [John sent a letter to Mary], [John] is both Agent and Source).
- An argument's thematic role is not directly mapped from an *a priori* lexical entry, fixed in the Lexicon, but read off dynamically a syntactic-semantic construal, as in (8).

Therefore, we reject UTAH-based approaches to thematic roles because of their fixed and aprioristic character, and argue for a more componential theory of semantic relations between arguments, to be established at the interfaces. In this vein, we argue that, if thematic roles are not relevant at the syntactic component, but at the semantic component; then there is no difference between Agent, Cause, and so on, as they are all *inferential specifications* of a more general "thematic sphere", Agent (Krivochen, 2012: Chapter 2). This being so, the ungrammaticality of a certain example cannot be blamed on theta-roles (an independency statement that can be traced back to Chomsky's first writings), as they are post-syntactic: a free-Merge system is not sensitive to thematic relations, not until LF-Transfer, where configurations are read.

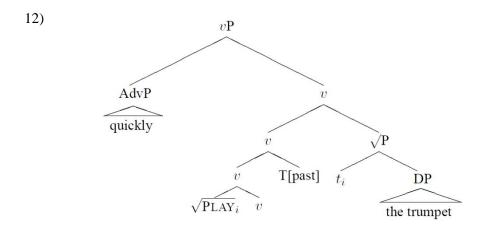
These interface-oriented considerations are essential if we are to distinguish between *internal* and *external* causation, as we have to do it in two levels: syntax, and semantics; independently of their morpho-phonological manifestation.

### 2. More on internal / external cause:

Now, after some of the basic assumptions have been outlined, we can ask ourselves whether the difference between internal and external cause is semantic, syntactic, or a combination of both, and how is it materialized. Moreover, is causativity a property *of a root* (as Schäfer suggests), or of the *construal* the root appears in? That is, is causativity (in both its flavors) a lexical or a syntactic property (taking the latter in the wide, componential sense, cf. a narrower view in Hauser et. al. 2002)?

Distributed Morphology (see Halle & Marantz, 1993 as the *locus classicus*, and Embick & Noyer, 2007; Panagiotidis, 2013 for recent references) claims, as we have pointed out in section (1), that "all roots are meaningless in isolation" (Panagiotidis, 2013: 5; Borer, 2009), insofar as they can have only meaning within a specific construal, in local relations with affixes, categorizers, etc. We disagree with this claim, insofar as our claim does not divorce the roots from the Encyclopedia: a root has meaning, albeit a highly underspecified one, which allows for *a limited range of variation*, as in genotype / phenotype dynamics. What is more, this claim does not invalid any of the empirical evidence Panagiotidis offers in favor of meaningless roots, only relativizes the theoretical claim. Meaningless roots, if taken in a strict sense, could lead to a situation of overgeneration, insofar as there is no reason why a particular meaningless element should be linked to an encyclopedic entry, or a Spell-Out pattern. Moreover, if they are "unexceptional syntactic objects" (Panagiotidis, 2013: 7), then they cannot be radically empty, as every element is to have an interface motivation, or else it should be eliminated because of Full Interpretation. Functional material on top can *precise* the reference of the root (either to an entity or to an event), as a subset of the potential extension of the root, but functional nodes *do not provide semantic substance*.

Part of this precision is the determination of the source of causation, when the causative alternation is possible. A crucial objection we will make is that, if roots are in fact meaningless, how come they take arguments? Consider the following representation, from Embick & Noyer (2007):



Notice that the argument [the trumpet] originates within a *root phrase*, which implies that there are some features in the root that percolate to a label, and, more importantly, that the root has *selectional features*, which allow the merger of an internal argument. The DP is directly governed by the root, not by the *v* head. What is more, there is no lexical/eventive projection (i.e., VP) here, just a root phrase and the *v*P, in charge of categorization via incorporation of root to *v*. Assuming a bottom-up approach to syntactic derivations, the DP must have entered the syntactic workspace *before* the root has been categorized by *v*: how come the root takes a complement if it is semantically empty?

A similar analysis can be seen in Kosta's (2011) bracketing structures, following Alexiadou et. al. (2006):

13) a. Petr otevřel dveře (Cz.)

'Peter opened the door'

b. [Petr VOICE [CAUS [dveře √otevřel]]]

Notice that the DP [dveře] appears within the domain of the root, not of an eventive variable. There is no VP (or [EVENT] head) in that representation. However, we do find a VOICE node, which, apparently, "expresses the relation between the element in a specifier and the event in the complement position (CAUS)" (Kosta, 2011: 285), following and extending the proposal of Kratzer (1996). Our take on the matter is quite different. In our opinion, the presence of a Voice head as distinct from v is not justified, insofar as it is the causative head that requires a causator, and the roles of the two functional nodes seem to overlap: it is v that licenses subject oriented adverbs and [by-phrases] in passives, insofar as it is v that licenses (but not always requires the overt realization of) the external argument, receiving a thematic interpretation causator, being agent, force, etc. inferential (therefore, post-syntactic) specifications. It is essential to bear in mind that the causator argument is not always spelled-out, whereas this does not take causativity away from the semantic representation of the construal (as we saw above). How to solve this apparent problem? A semantically based solution, focused on economy of representation and derivation would be to

abandon the X-bar intra-theoretical *stipulation* that all X project a specifier (see, e.g., Chomsky, 1995). If CAUS (in our terms,  $\nu$ ) does not *necessarily* project a specifier, because there is nothing in the lexical array to merge in Spec- $\nu$ , then we get something like (14):

14) Dveře se otevřely (Cz.) 'The door SE opened'

In this case, we agree with Kosta's representation (including *cause*, but without an external argument), which goes along the lines of (15):

15) [CAUS [the door [√open]]

But, we would add an *eventive variable* (bound by the features of T, which anchor the reference of the event), which in this case would be a positive value for the V node (i.e., a dynamic event, see the classification above), and a cause that has *not been overtly specified* (i.e., materialized), and can therefore be taken to be not relevant (in the technical sense of Relevance Theory) for the construction of a full propositional form and posterior interpretation (e.g., [because of the wind]), thus getting (16):

16) [CAUS<sub>ENV</sub> [the door [[GO]  $\sqrt{\text{open}}$ ]]]

If there is no element in the array to be merged as a specifier to CAUS, then the position is not projected, in real derivational time, and there is no need to resort to VOICE to account for internal / external causation alternations. In a semantically based syntax, global tendencies favor information conservation (see also Lasnik, Uriagereka, & Boeckx, 2005; Krivochen, 2011) throughout the derivation, whereas local tendencies favor cyclic transfer of local derivational chunks to the phonological component (as first noticed by Bresnan, 1971), a tension we have (using Binder's 2008 terminology) described as a *dynamical frustration* in cognitive design, particularly pervasive in language under a Multiple Spell-Out model. This frustration, defined as the tension between opposing forces, or global and local tendencies, is very much present in language, and interlinguistic variation at certain respects can be looked at from a "frustrated" perspective. For instance, Schäfer (2008) and Alexiadou et. al. (2006) justify the need for independent VOICE projections on the light of contrasts like the following (taken from Kosta, 2011: 284):

- 17) a. John / the explosion / Will's banging broke the window.
  - b. John / exploze / rána Willa rozbił(a) okno (Pol.)
  - c. Okno bylo rozbito Johnem / explozí / ránou Willa (Cz.)
- 18) a. \*The window broke by John / by the explosion / by Will's banging
  - b. \*Okno se rozbilo Johnem/ explozí / ránou Willa (Cz.)

However, Spanish (a Romance language) allows constructions of the type of (18), as in:

19) La ventana se rompió por la explosión 'The window SE broke by the explosion'

Kosta notices this fact, and makes the caveat that an agent cannot be introduced by means of a PP:

### 20) \*The window broke from Mary

However, the mistake here, inducing ungrammaticality, seems to be the preposition choice, as (21) is grammatical:

#### 21) The window broke because of John

How is (21) to be interpreted? Possibly, along the lines of (17 a), with a paraphrasis such as "the window broke because of what John was doing", in which case we are not dealing with an *entity* as the cause of the relevant event of [breaking] but with an *event* (whatever John was doing), which is correctly predicted to be grammatical by Kosta<sup>5</sup>. In spite of this, the motivation for VOICE is far from clear, since nothing in the nature of the *v* head determines a CP (a full proposition) or a nominalization with a full thematic structure (agent, event, theme) cannot occupy that position (unless we resort to Agree-related or subcategorization stipulations, which are absent in our framework). In more concrete terms, once we have distinguished several semantic types of *cause*, and clarified which arguments are licensed by which heads, the necessity of an independent VOICE head fades out, until further evidence forces us to revisit our claims.

The caveat we have made above provides some bases for a classification of causatives according to the kind of PP causator they allow: [by-phrases] are licensed by *sortal causatives*, in which the causator is a sortal entity, denoted by a DP. On the contrary, [because of] / [due to] phrases are licensed by *eventive causatives*, in which the cause of the event denoted by V is an event itself, regardless its grammatical realization. In the case of (21), for instance, the eventive causative has a conceptual subject [what John was doing], grammatically realized as a PP [because of John]. Interestingly, eventive causatives do not have the same semantic restrictions as sortal causatives, that is, the requirement of animacy and volition for sortal DP agents. In Spanish, some apparent ergative constructions can be thought to be in fact eventive causatives, for instance:

- 22) La puerta se abrió (Sp.) 'The door SE opened'
- 23) La puerta se abrió por el viento

'The door SE opened because (of) the wind'

-

<sup>&</sup>lt;sup>5</sup> A reviewer objects to this analysis that we propose [because of] as introducing a [cause] argument, which is admittedly clearly false. The reviewer points out that [because of] introduces a partial ellipsis, along the lines of [the boat sank because of the storm [that has caused that the boat sank]]. However, the objection does not apply: what we are saying is precisely that we are not dealing with a sortal cause here, but with an eventive cause, an observation captured in the paraphrasis provided for (21). To spell it out, [because of] introduces a semantically eventive argument, materialized as a DP. Thus, being an event, it does not behave as a [by-phrase] agent, as the reviewer points out. Moreover, there is no evidence or compelling conceptual argument to claim that eventive and sortal causatives require different projections, thus licensing the presence of VoiceP. In a free-Merge syntax, there is simply no reason to assume that the generative engine deriving representations is sensitive to such distinctions. If the syntactic component is claimed to be indeed sensitive to the eventive / sortal opposition, then we must concede it is not only generative but also partly interpretative, which would in turn make the interfaces (at least LF) partly superfluous. Arguments in favor of a more economic approach including only *v*P are thus both conceptual and empirical, deep-rooted in a cognitive stance.

Notice that the eventive causator, roughly [because of what the wind was doing], is introduced by a different preposition than that used by Instrumental arguments:

24) La puerta se abrió con la llave 'The door SE opened with the key'

This paradigm, admittedly reduced, already introduces interesting conditions for the semantic classification of causatives, and, in our opinion, motivates a revisiting of transparent syntax-semantics-morpho-phonology interface proposals, based on uniform mapping between the aforementioned systems. The concept of tension is thus essential in an interface proposal, from our point of view.

We would now like to address an apparent counterexample proposed to us by Kosta (p.c., see also his contribution), regarding the classification of verbs, and the possibilities of alternations: his evidence consists on distinguishing roots characterizing them via  $[\pm \text{ cause}]$ ,  $[\pm \text{ voice}]$  features, which project from the Lexicon (a strong lexicalist stance, as we see, insofar as syntactic structure is not a function of semantic requirements, but of intra-lexical specifications, bearing a strong resemblance to GB categorial features and subcategorization frames). This double classification results in four kind of verbal roots:

- $\sqrt{\text{agentive (murder, assassinate, cut) project only a VoiceP. (+voice, -caus)}$
- \(\sqrt{internally caused (blossom, wilt, grow)}\), project only a CausP. (-voice, +caus)
- \(\sqrt{\text{externally caused (destroy, kill, slay)}}\), project a voiceP and a CausP (+voice, +caus)
- $\sqrt{\text{cause unspecified (break, open, melt), project a light vP (-voice, -caus)}$

While assuming a uniform system of projection and v as a mere categorizer head (e.g., Marantz, 1997), Kosta's objection would be indeed correct, and we would need an extra head to account for dissociation; if we treat Specifiers as Adjuncts (see, for instance, Uriagereka, 2002; Chomsky, 1995), that is, elements that are absent of the core projection system, then the extra VOICE head is not necessary, particularly with the added assumption (made above) that v can either project a Specifier position or not, depending on the pre-linguistic semantic construal to be linguistically instantiated: in our theory, syntactic structure is a function of semantic requirements, not of X-bar theoretical axioms. It is also important to notice that the conception Kosta has of v is, apparently, completely different from our own: in our theory, ergatives have no v, insofar as the semantic contribution we assign to the v procedural element is, precisely, causativity; diathesis having no independent projection (i.e., VoiceP) insofar as it is not syntactic in nature but more related to theme-rheme dynamics (as in passivization, taken to be the thematization of the grammatical object), as noticed, among many others, by Xavier Frías Conde (p.c.): if this is the case, then diathesis is at best an interface phenomenon, but does not belong to the narrow syntax. A further point to be considered is that we invert the logics: transitivity and passivization are not sine qua non conditions for causativity, as we have dissociated all three, but this does not mean we have three independent projections. It is to be noticed that some cases are not as clear-cut as they seem, something we predict in our Free-Merge system: the generative system is not constrained, and alternations are always logically possible (a similar argument was held by Coseriu when distinguishing system, norm, and speech): constraints on alternations are given by use and historical accidents, and can be reversed (as opposed to a rigid conception of the lexicon in which alternations are *a priori* limited by the featural composition of the root involved, see also the discussion in Krivochen, 2012: Chapter 2). Consider, for example, the case of "read":

- 25) a. John *read* the book (transitive causative)
  - b. The book was read by John (personal passive, licensed by v)
  - c. "the text is a faithful rendering of the original in style and register, and it *reads* easily and smoothly." (<a href="http://www.linguee.com/english-spanish/translation/reads+easily.html">http://www.linguee.com/english-spanish/translation/reads+easily.html</a>) (Middle/impersonal construction?)<sup>6</sup>

It has been noticed that (25 c) presents some properties of Anti-Causative constructions, in spite of its apparent Middle meaning: while a suitable paraphrasis of the sentence could be (26 a), (26 b) is not:

- 26) a. Anyone reads the text easily and smoothly
  - b. \*The text is read easily and smoothly by anyone

The unacceptability of the [by-phrase] leads us to think that the syntax of this construction is closer to that of Anti-Causatives, in the event that Middles are not considered a kind of Anti-Causative. In any case, our point is clear: alternations are available in the *system*, a subset of which constitutes the core data for linguists (roughly, Coseriu's *norm*). If generative linguistics analyze the system that generates structural descriptions of sentences, then a full account of the *system* is to be given: constraints on alternations must be revisited paying attention to the *use*. Historically, language development might drive apart from uniform interface mapping, which is problematic for a systematic approach to the Causative / Anti-Causative distinction unless taken dynamically<sup>7</sup>.

The non-uniform mapping between semantics and phonology (including the claim that PF-phases – possibly, *tone units*- and FL-phases – *propositional projections*- might not coincide) is exactly the kind of problem we address in Krivochen (2013) from the perspective of dynamical frustrations (that is, mutually opposing forces at global and local levels, see Binder, 2008), and which can be useful here. Notice that, be it a CP or a DP, the restriction on the materialization of the causator is not categorial (as such a restriction would imply re-introducing subcategorization frames from the GB model), but *semantic*: in structures like (21), the causator, if materialized, corresponds to an *event*, roughly, [what John was doing]; and not to a *sortal entity* (of the kind denoted by proper names). When cyclically transferred to PF, the structure collapses if an anti-causative construal, with no Spec-v position, contains a proper name introduced by a PP, but not if the PP introduces an *event*, even if categorized as a nominal (e.g., a nominalization). Since the restriction is by nature (broadly) semantic, we find no justification to the addition of a node in the syntactic structure (as Voice), as the effects can be accounted for via interface conditions and the tension between global semantic requirements and local phonological cycles.

This perspective can also prove useful when considering the availability of causative / anticausative alternations for certain roots, a restriction Schäfer (2008) attributes to the semantic

The is possible that the contrast can be semantically analyzed along the lines of a non-valid LF movement of the universal quantifier, but this possibility will not be analyzed within the context of this paper.

<sup>&</sup>lt;sup>6</sup> The exact expression "reads easily" got more than 280.000 hits in Google, which is not a minor number given the specificity of the search.

(encyclopedic) content of the root. In our opinion, such a proposal has a disadvantage: it needs a syntactic component that, apart from *building* structure, is sensitive to the inner characteristics of the elements it manipulates, in order to identify the roots that allow alternations and those which do not, and construe a phrase marker in consequence. This entails directly that the so-called "Narrow Syntax" (Hauser, et. al. 2002) cannot be just Merge (or Merge + Move / Agree...), but Merge + some interface reading/evaluating function, still unspecified in the literature. We will take two sets of examples, in order to support our argument that things are not that simple, as "root content" is easy to write, but hard to define: in a strongly componential, semantically-motivated syntax, construal is always to be taken into account. For example:

- 27) a. The flower blossomed
  - b. Květiny rozkvetly (Cz.)
  - c. Kwiatek zakwitł. (Pol.)
  - d. La flor floreció (Sp.)
- 28) a. \*The gardner blossomed the flower
  - b. \*Zahradník rozkvetl květiny (Cz.)
  - c. \*Ogrodnik zakwitł kwiatek. (Pol.)
  - d. \*El jardinero floreció la flor (Sp.)

The paradigm above (including Romance, Slavic, and Germanic languages) shows that an overt CAUSE<sub>EXT</sub> initiator is incompatible with ergative construals, but it says nothing about whether it is the construal itself that does not allow the presence of an overt external initiator or it is the content of the root, specified enough to make c-/s-selection choices, that bans the EA. Schäfer, like Embick & Noyer (see also Alexiadou, 2003: 19, who projects a LexicalP whose head is the root, compiling with all X-bar theoretical assumptions –i.e., projecting Spec- and Compl- positions), assumes the root not only projects, but also establishes constraints as to its "arguments". Our perspective is different: ergative/unaccusative, unergative, and (di)transitive are primarily conceptual templates (Relational Semantic Structures, in Mateu Fontanals' 2002 terms; see Taylor et. al., 2007 for a neurocognitive approach) a subject can organize phenomenological information with, and might or might not be instantiated linguistically. When they are, the meaning is to be read off the *whole structure*, not as a projection of the root, which, in our terms, it is too semantically underspecified to be interpretable and, not being linguistic but conceptual in nature, cannot take arguments or impose restrictions to co-occurring XPs. As Hale & Keyser (1997: 40) eloquently put it:

"We maintain that certain crucial aspects of meaning are dependent on the very structural features whose identification is at issue. If we 'knew the meaning' we would know the structure, perforce, because we know the meaning from the structure." (emphasis in the original)

What we would like to problematize here, without attempting to reach a decisive answer, is the fact that, in principle, all roots should be equally "causitivized", from a strictly syntactic point of view. From a strictly semantic point of view, the possibility of causative alternations is banned from square one, due to the selectional properties of the root (however they turn out to be encoded). From

an interface point of view, like the one we defend here following Hale & Keyser (inter alii), there are at least two factors to be taken into account:

- a) The construal in which the root appears, and the structural positions licensed by such construal
- b) Extra-linguistic processes of coinage and fossilization of certain structures

The immediate consequence of our proposal is that diachrony cannot be overlooked when analyzing argumental alternations, otherwise, any account would require ad hoc stipulations to determine the availability of alternations for certain Vs and not others within a single typology (e.g., unlike [blossom], some ergatives allow pure transitive alternations, like [grow]: John grows<sub>EXT</sub> tomatoes / Tomatoes grow<sub>INT</sub>; however, both [grow] and [blossom] are customarily classified as ergatives). Another consequence is that both syntactic structure is, in our terms, driven by global semantic requirements, therefore, optimality considerations about the positioning of arguments and competition among candidates must take into account not only Spell-Out possibilities but also which candidate turns out to be less entropic with respect to the global semantic content to be linguistically instantiated.

The causative *meaning* is not banned, since (29) is well formed:

29) The gardener made the flower blossom (for instance, by using a special fertilizer on it)

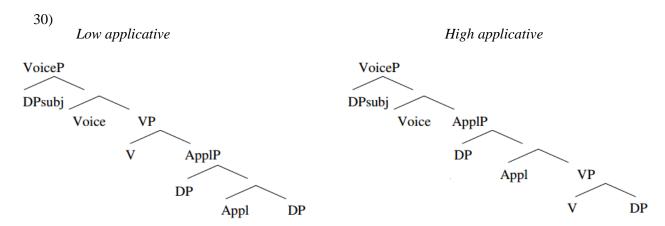
What is banned is the particular materialization of causative meaning in a synthetic manner, Shibatani & Pardeshi's (2001) (a) group comprising lexical causatives. The tension we mentioned before is also visible here: a global meaning is available (in principle, if thought systems are independent of language and computational themselves, why would it not be?), but not all materialization possibilities are equally evaluated. In this case, Transfer-PF by phase, as in (9), sets the local limits for the application of PF-related operations, including conflation. As we see, broader interface and architectural issues are to be taken into account when considering constraints over alternations, as well as extra-linguistic issues related to coinage<sup>8</sup>.

### 3. On ApplP and PP:

Our discursion about causative constructions, brief though it might be, cannot be complete without a section devoted to the problem of applicatives, and their cross-linguistic variants at the levels of lexis, syntax, and semantics. Pylkkänen (2008) employs the term applicative in her monograph as a way to denote indirect object arguments added to a V. It is claimed (2008: 11) that semantic properties of applicative (i.e., ditransitive) constructions are more or less uniform among languages, but syntactic properties differ. Thus, for instance, whereas English does not allow applicative arguments (i.e., benefactive / goal datives) with unergative Vs, Bantu languages do. Moreover, the

<sup>&</sup>lt;sup>8</sup> This is related to the following problem (pointed out to us by Phoevos Panagiotidis, p.c.): Is it really the case that a root like  $\sqrt{CAT}$  is somehow more inclined to be merged with a D procedural node because of some syntactic requirement or is it that, as the N is "more widely used" (because of socio-historical factors, once again), and the phonological matrix is perceived in certain environments, the neurological connection is rutinized and the syntactic configuration reflects that statistical asymmetry by merging {D, \( \sqrt{CAT} \) "by default", as the most accessible (but not the only one) option for the inferential component to work with? See Krivochen (2012: 123, ff.) for our take on the matter.

relative stability of applicative semantics is due to the scope they have, thus defining two kinds of applicatives: *high* applicatives, which have scope over the VP; and *low* applicatives, within the VP. The representations are the following:



However, it is to be noticed that not all authors accept this distinction. For instance, Marvin (2009) claims that Slovenian displays ambiguous readings with some ditransitive transmission constructions:

31) Binetu sem poslal pismo (Slov.) 'Bine<sub>DAT</sub> Aux sent<sub>1Sg</sub> the-letter<sub>ACC</sub>'

The readings, according to Marvin, are the following:

- a) <u>High Appl</u>: I sent X the letter instead of Bine (Bine was the recipient of my event of sending the letter)
- b) Low Appl: I sent Bine the letter (Bine is the intended recipient of the letter)

While we would expect a logical form analysis of the sentence, so that scope relations are made explicit, Marvin provides none. However, he does make a point about the ambiguous scope of ApplP, insofar as she finds the same effect with non-transmission Vs (like *skuhal* 'cook') and possessor rising constructions, in which the DAT argument introduced by the Appl can either denote the possessor of the ACC object or not. What is more, she extends her claim to other Slavic languages, like Serbo-Croatian and Macedonian.

We will not discuss the empirical appropriateness of Marvin's analysis, but rather try to simplify the theoretical apparatus. In Hale & Keyser's framework, the P node can convey either a *central* or a *terminal* coincidence relation, which determines the difference between *location* and *locatum* Vs:

32) a. John shelved the book = [John [CAUSE\_EXT [GO [[the book] [TO [ $\sqrt{shelf}$ ]]]]]]  $\rightarrow$  Location V b. John buttered the toast = [John [CAUSE\_EXT [GO [[the toast] [WITH [ $\sqrt{butter}$ ]]]]]]  $\rightarrow$  Locatum V

Notice that (32 b) denotes a possession relation, in which John causes the event of the toast *having* butter. This possession relation is interpreted because of the nature of the locative node P, a *central coincidence relation*: possession is a kind of location, in which the possessed thing is merged as the complement of P and the possessor, as the specifier. So, a structure like the following Russian DOC

33) Petr dal Line knigu (Russ.)

'Peter gave Lina<sub>DAT</sub> the book<sub>ACC</sub>'

includes, in this perspective, a central coincidence prepositional node [WITH] (either overt or covert, only present at LF)

#### 34) [[Line] [[WITH] [knigu]]]

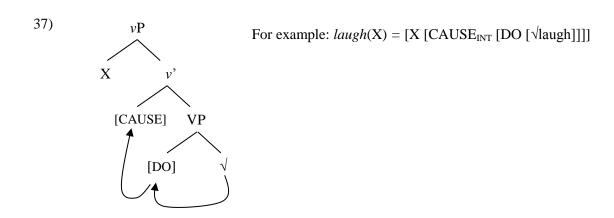
thus generating the presupposition "Lina has the book". As Bleam (2003) has pointed out, contrarily to the judgments of Pylkkänen (2008: 15), it is ungrammatical to cancel the presupposition with an adversative clause if the main sentence is not negated, as in:

# 35) \*Peter sent Lina the book, but she never got it

This is arguably the most salient semantic difference between prepositional indirect object constructions (PIOC), in which the DAT argument is introduced via a preposition, and double object constructions (DOC), in which the DAT-ACC dynamics is only read off the configuration, there being an adjacency relation between internal arguments, materialized as DAT - ACC. Taking this into account, (36) is perfectly acceptable, since PIOCs do not generate the presupposition that at the end of the process the locations of Figure and Ground coincided (i.e., there is no possession presupposition):

#### 36) Peter sent a book to Lina, but she never got it

The structures proposed by Bleam (as well as Harley, 2002) involves a caused event (in Harley's terms, a  $V_{\text{CAUSE}}$ ) having scope over a central coincidence relation (in Harley's terms, a  $P_{\text{HAVE}}$ ). If P takes two arguments, as Hale & Keyser (2002) and Mateu Fontanals (2002) propose, then the semantic contribution of P is precisely to provide instructions to the semantic system as to how to interpret the relation between those arguments, each a sortal entity. The question arises whether we need an Appl node to account for the introduction of an oblique argument in the construal (as Pylkkänen claims) or not (as in Kosta's 2011 account). Without even trying to exhaust the topic, our answer, guided by Minimalist desiderata of economy in representations, will be that, if transitive constructions always involve a P node (in monotransitives, the complement of P conflates onto  $P_0$ ), then there is no need to resort to an extra Appl projection to account for DAT arguments. Moreover, the observations with respect to the ungrammaticality of applicative arguments in Unergative construals (Pylkkänen, 2008: 11) would be derived from the syntactic-semantic construal underlying unergativity (adapted from Mateu Fontanals, 2002: 31; see also Hale & Keyser, 2002: 15 for extensive discussion):



The underlying "transitive" character of unergatives (with the root providing the phonological signature to otherwise "defective" –and thus, uninterpretable- nodes, in Hale & Keyser's 2002 terms) can be more easily seen in languages like Basque, (in which there is no conflation in unergatives) such that *laugh* is *barre egin*, literally, "laugh do<sub>INF</sub>", containing a light, quasi-auxiliary V [egin]. Since there is no P spatial projection in this construal, the ban on applicative arguments follows straightforwardly. The lack of an ApplP, under the present assumptions, could also help accounting for the phenomena in South Slavic languages noticed by Marvin (2009), which have proven problematic for a purely syntactic account of applicativity and scope relations between ApplP and VP.

Notice as well that, even if a further projection were apparently needed, in order to account for strict high applicative / low applicative distinctions (as it seems to happen in Russian, see Soschen, 2005), the PP hypothesis could very well do the trick, under the correct assumptions, assuming that the DOC / PIOC opposition is encoded within P and the distribution of *Figure* and *Ground*, so that the difference DOC / PIOC dissolves in the opposition Locatum / Location respectively (see figure 35 above). Consider the following paradigm, which Soschen (2005: 3) presents as examples of the two kinds of applicatives:

- 38) a. Lina vyšila Petru rubašku. (low applicative) 'Lina<sub>NOM</sub> embroidered Petr<sub>DAT</sub> shirt<sub>ACC</sub>'
  - b. Lina vyšila rubašku dlja Petra. (high applicative) 'Lina<sub>NOM</sub> embroidered shirt<sub>ACC</sub> for Petr'

Two possible analyses arise. While Pylkkänen and Soschen adopt the ApplP analysis (Soschen complements it with phase-theoretical assumptions, such that Appl<sub>0</sub>, when heading a low ApplP would be a phase head), we observe that the difference between (38 a) and (38 b) are, as we have

<sup>9</sup> We have put *transitive* between inverted commas because, obviously, there is no affectedness in the internal incorporated argument of the unergative construal. However, the overall syntactic construal, with both external and internal arguments (the latter of which incorporates onto V), *syntactically* resembles a transitive skeleton. This is a further example of the syntax-semantics mismatch we have mentioned above.

already said, those between PIOC and DOC constructions, with their further semantic interface effects, including the possession presupposition generated by (38 a). The contrast, then, would be expressible under a PP-analysis as follows (omitting the causative shell  $\nu$ P):

39) a. [VP vyšila [PP [Petru] [[WITH] [rubašku]]]] b. [VP vyšila [PP [rubašku] [[TO] [Petra]]]]

In (36 b) the P head is spelled out as [dlja], a *terminal coincidence* relation between the two arguments of P. DOCs tend not to spell the P out crosslinguistically (as it happens in English) or, if it is indeed spelled out, it is so as a clitic (as it happens in Spanish, where the dative clitic then incorporates onto the main V, and is doubled by a post-verbal PP). We see that the distinction, which in Russian seems to be semantically clearer than in Slovenian (following Marvin's arguments), can be captured in the locative-oriented thematic structure skeleton depicted in (6).

### 4. Conclusion:

In this paper we attempted to propose an interface approach to the phenomenon of causativity, based on the lexical decompositional approach taken by Kosta (2011). In doing so, we hope to have made a point of the fact that no linguistic phenomenon will be fully understood or accounted for from a single perspective (be it syntactic, semantic, or morpho-phonological), but from the interaction and mutual conditioning between those components, what is called "interfaces". We revisited the concept of causativity exposed by Schäfer (2008) and Kosta (2011), and proposed a different, though related, classification, which in turn helped us eliminate elements in the syntactic representation (e.g., VoiceP, ApplP) while maintaining empirical coverage in the examples analyzed. A more elegant theory of causativity, we think, could go along the lines hereby proposed, although there is much pending investigation. Among the problems to tackle, the availability of alternations, and tests to identify typology are salient, and we hope to address those problems in future research.

#### 5. References:

Alexiadou, A. (2003) *Functional Structure in Nominals: Nominalization and Ergativity*. Linguistics Today 42. Amsterdam, John Benjamins.

Alexiadou, A., E. Anagnostopulou & F. Schäfer (2006) The properties of anticausatives crosslinguistically. In Frascarelli, M. (ed.), *Phases of Interpretation*. Berlin: Mouton de Gruyter. 187-211.

Binder, P. (2008) Frustration in Complexity. Science 320. 322-323.

Bleam, T. (2003) Properties of the Double Object Construction in Spanish. In Rafael Núñez-Cedeño, Luis López and Richard Cameron (eds), *A Romance Perspective on Language Knowledge and Use, John Benjamins*.

Boeckx, C. (2010) Defeating Lexicocentrism. Ms. Outline of *Elementary Syntactic Structures*. ICREA / UAB.

Borer, H. (2009) Roots and Categories. Presented at *19th Colloquium on Generative Grammar* April 1-3, 2009 Vitoria-Gasteiz, Faculty of Letters (Gradu Aretoa), University of the Basque Country.

Bresnan, J. (1971) Sentence Stress and Syntactic Transformations. Language, Vol. 47 (2). 257-281.

Chomsky, N. (1981) Lectures on Government and Binding. Dordrecht: Foris.

(1995) The Minimalist Program. Cambridge, Mass.: MIT Press.

(2008) On phases. In Freidin, R., Otero, C.P. & Zubizarreta, M.L. (Eds.), *Foundational Issues in Linguistic Theory. Essays in Honor of Jean-Roger Vergnaud*. Cambridge, Mass.: MIT Press. 291-321.

Culicover, P. & R. Jackendoff (2005) Simpler Syntax. Oxford: OUP.

De Belder, M. (2011) *Roots and Affixes: Eliminating Lexical Categories from Syntax*. PhD Thesis. Utrecht University.

Embick, D. & R. Noyer (2007) Distributed Morphology and the Syntax/Morphology Interface. In *Oxford Handbook of Linguistic Interfaces*. Oxford: OUP. 289-324.

Givón, T. (1980). The binding hierarchy and the typology of complements. *Studies in Language*, 4 (3), 333–377.

Hale, K. & S. J. Keyser (1993) On argument structure and the lexical expression of Syntactic Relations. In *The view from Building 20: Essays in honor of Sylvain Bromberger*, ed. by Kenneth Hale and Samuel Jay Keyser, MIT Press. 53-109.

(1997) The Basic Elements of Argument Structure. Ms. MIT. [Reprinted with changes as Chapter 1 of Hale & Keyser, 2002]

(2002) Prolegomenon to a Theory of Argument Structure. Cambridge, Mass.: MIT Press.

Halle, M. y A. Marantz (1993) Distributed Morphology and the Pieces of Inflection, en Hale, K. y Kayser, J. (eds.) *The View from Building 20 Essays in Honor of Sylvain Bromberger*, Cambridge, Mass.: MIT press. 111-176.

Harley, H. (2002) Possession and the double object construction. *Yearbook of Linguistic Variation* 2. 29-68.

(2003) How do verbs get their names? Ms. University of Arizona. <a href="http://dingo.sbs.arizona.edu/~hharley/courses/Oxford/Harley2.pdf">http://dingo.sbs.arizona.edu/~hharley/courses/Oxford/Harley2.pdf</a>

Hauser, M. D., N. Chomsky, & W. T. Fitch (2002) The faculty of language: What is it, who has it, and how did it evolve? *Science* 198: 1569–1579.

Jackendoff, R. (1987) The Status of Thematic Relations in Linguistic Theory. *Linguistic Inquiry* 18 (3), 369-411.

(2002) Foundations of Language. Oxford: OUP.

Kosta, P. (2011) Causatives and Anti-Causatives, Unaccusatives and Unergatives: Or How Big is the Contribution of the Lexicon to Syntax. In Kosta, P. & L. Schürcks (eds.) *Formalization of Grammar in Slavic Languages*. Frankfurt am Main, Peter Lang. 235-296.

Kratzer, A. (1996) Severing the external argument from its verb. In J. Rooryck and L. Zaring, (eds.), *Phrase Structure and the Lexicon*. Dordrecht: Kluwer. 109–137.

Krivochen, D. (2011) An Introduction to Radical Minimalism I: on Merge and Agree (and related issues). In IBERIA Vol 3 n° 2. 20-62.

(2012) The Syntax and Semantics of the Nominal Construction. Frankfurt am Main, Peter Lang.

(2013) A Frustrated Mind. Ms. Under review. http://ling.auf.net/lingbuzz/001932

Lasnik, H., J. Uriagereka & C. Boeckx (2005) A Course in Minimalist Syntax. Oxford: Blackwell.

Larson, R. (1988) On the Double Object Construction. Linguistic Inquiry 19: 335-391.

Marantz, A. (1984) On the nature of grammatical relations. Cambridge, Mass.: MIT Press.

(1997) No escape from syntax: Don't try morphological analysis in the privacy of your own Lexicon. *Penn Working Papers in Linguistics 4:2: Proceedings of the 21st Annual Penn Linguistics Colloquium*, edited by A. Dimitriadis, L. Siegel, C. Surek-Clark, & A. Williams. Philadelphia: University of Pennsylvania. 201–225.

Marvin, T. (2009) High and Low Applicatives in Slovenian. Presented at Sarajevo Linguistic Gathering 4. 24-26 Sept., 2009.

Masullo, P. (1992). *Incorporation and Case Theory in Spanish. A Crosslinguistic Perspective*. PhD Thesis. University of Washington, Washington.

Mateu Fontanals, J. (2002) *Argument Structure. Relational Construal at the Syntax-Semantics Interface*. PhD Dissertation. Bellaterra. Downloadable at <a href="http://www.tesisenxarxa.net/TDX-1021103-173806/">http://www.tesisenxarxa.net/TDX-1021103-173806/</a>

Panagiotidis, P. (2013) Roots and Categories. Lectures delivered at Stony Brook University, US. October 28<sup>th</sup>-30<sup>th</sup>, 2013.

Pylkkänen, L. (2008) Introducing Arguments. Cambridge, Mass.: MIT Press

Schäfer, F. (2008) *The Syntax of (Anti)Causatives: External Arguments in Change-of-State Contexts*. Amsterdam, John Benjamins.

Shibatani, M. (1976). The Grammar of Causative Constructions: A Conspectus. In M. Shibatani (ed.), *The Grammar of Causative Constructions*. New York: Academic Press. 1-40.

Shibatani, M. (ed.) (2002) *The Grammar of Causation and Interpersonal Manipulation*. Amsterdam, John Benjamins.

Shibatani, M. & P. Pardeshi (2001) The Causative Continuum. *Kobe Papers In Linguistics No. 3 Nov*, 2001. 136-177.

Soschen, A. (2005) Derivation by phase: Russian applicatives. In *Proceedings of the 2005 CLA Annual Conference*. <a href="http://ling.uwo.ca/publications/CLA-ACL/CLA-ACL2005.htm">http://ling.uwo.ca/publications/CLA-ACL/CLA-ACL2005.htm</a>

Taylor, K. I., Moss, H. E., & Tyler, L. K. (2007). The conceptual structure account: A cognitive model of semantic memory and its neural instantiation. In J. Hart & M. Kraut (Eds.) *Neural Basis of Semantic Memory*. Cambridge, UK: Cambridge University Press. 265-301.

Uriagereka, J. (2002) Multiple Spell-Out. In Uriagereka, J. (2002) *Derivations: Exploring the Dynamics of Syntax*. London: Routledge. 45-65.