

# **Book of abstracts**

**RALFe 2016**  
**3-4 November, 2016**

UMR 7023  
Structures Formelles du Langage  
(Université Paris 8 / CNRS)

## Suffixaufnahme, Oblique case and Predication

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**Suffixaufnahme.** In typological work (Plank 1995) the Suffixaufnahme label unifies case stacking (e.g. Lardil, Richards 2013) and linkers (e.g. Albanian, Franco et al. 2015). In Lardil (1), the word *marun-ngan-ku* -boy-gen-inst $\emptyset$  is inflected both for genitive and instrumental cases, reflecting its status as the (genitive) possessor of the instrumental *maarnku* -spear-instr $\emptyset$ . In Albanian (2) the pre-genitival linker similarly agrees in case, as well as in phi-features, with its head N.

- (1) Ngada latha karnjin-i marun-ngan-ku maarn-ku  
 I spear wallaby-acc boy-gen-instr spear-instr  
 -I speared the wallaby with the boy $\emptyset$  spear. $\emptyset$  *Lardil, Pama-Nyungam*
- (2) a. mur-i i shtëpi-së b. dhom-a e shtëpi-së  
 wall-ms.nom ms.nom house-fs.obl room-fs.nom fs.nom house-fs.obl  
 -the wall of the house $\emptyset$  -the room of the house $\emptyset$
- c. mur-it të shtëpi-së d. dhom-ës së shtëpi-së  
 wall-ms.obl ms.obl house-fs.obl room-fs.obl fs.obl house-fs.obl  
 -to the wall of the house $\emptyset$  -to the room of the house $\emptyset$  *Albanian, I-E*

We argue that purely structural criteria identify the two phenomena no less than functional-typological ones. First, not only genitives, as in (1)-(2) but also adjectival modification and relative clauses are core environments for both stacking and linkers (Campos 2008, Kallulli 2008 on Albanian). Second, the linker (while agreeing with the head noun N) forms an immediate constituent with its modifier (genitive, adjective, relative clause), despite the fact that the linker can be phonologically enclitic on N (e.g. Larson and Yamakido 2008 on the Persian *ezafe*). In essence both case-stacking and linkers embed the oblique DP (ObIP) under an agreement layer (AgrP, e.g. Philip 2012) (incidentally denying that generalized case-stacking *à la* Pesetsky 2013 can be conflated with the Lardil facts). As expected, the structure is recursive (see (3 $\emptyset$ ) below).

- (1 $\emptyset$ ) [<sub>AgrP</sub> [<sub>ObIP</sub> marun-ngan]-ku] (2a $\emptyset$ ) [<sub>AgrP</sub> i [<sub>ObIP</sub> shtëpi-së]]

The case is clinched by Indo-Aryan languages. Though stacked (suffixal) material in Lardil is restricted to case (the language having non phi-features agreement) Punjabi, which has a residual direct/oblique case inflection in the masculine (unlike Hindi), stacks (suffixally) a case and agreement inflection on the PP/ObIP postpositional genitive.

- (3) a. mund-ea-d-a darwadd $\zeta$ -a b. mund-e-d-i kita:b  
 boy-mp.obl-of-ms door-ms boy-ms.obl-of-fs book.fs  
 -The door of the boys $\emptyset$  -The book of the boy $\emptyset$
- c. mund-e-d-e pra-d-i kita:b  
 boy-ms.obl-of-ms.obl brother.ms-gen-fsg book.fsg  
 -The book of brother of the boy $\emptyset$  *Punjabi, I-E* (Hoshiapur variety, field notes)

- (3 $\emptyset$ ) [<sub>DP</sub> [<sub>AgrP</sub> [<sub>ObIP</sub> [<sub>AgrP</sub> [<sub>ObIP</sub> mund-e-d]-e] pra-d]-i] kita:b]

**Aims.** We contend that any adequate analysis must be able to unify the phenomena in (1)-(3). For reasons of space, we concentrate on Punjabi. In generative terms, Suffixaufnahme involves a number of theoretical constructs, which include oblique case, predication and (multiple) Agree within the DP (e.g. Carstens 2001). We must limit the theoretical discussion to the former two.

**Oblique case I.** We assume the standard minimalist approach to case, namely that case is parasitic on agreement as formulated by Chomsky (2001) for direct cases, i.e. nominative and accusative. An Agree approach could be made to work by postulating Appl heads (Pylkannen 2008)  $\acute{o}$  yet we are not aware of this approach being pursued at all DP-internally, for genitives. Therefore we take a different direction. Following Manzini and Franco (2016), we assume that oblique case inflections and Ps (prepositions/postpositions), have a relational content, namely an -inclusion $\emptyset$  one, notated as ( $\subseteq$ ), to suggest that a part/whole interpretation is involved. Oblique case, specifically the genitive, is therefore an elementary predicate, connecting two arguments (possessor and possessum) via a part/whole relation. For instance in (3a), a ( $\subseteq$ ) relation, lexicalized by the postposition *d-*, holds between the argument to which the genitive morphology attaches, i.e. *mund $\zeta$ ea* -the boys $\emptyset$  (the whole or possessor), and the head DP *darwadd $\zeta$ a* -the door $\emptyset$  (the part or possessum).

- (3a $\emptyset$ ) [<sub>DP</sub> [<sub>AgrP</sub> [<sub>PP( $\subseteq$ )</sub> [<sub>DP</sub> mund $\zeta$ -ea] d]-a] darwadd $\zeta$ a]

**Oblique case II.** So far, we have only seen stacking/linker configurations where a genitive ( $\subseteq$ ) is the embedded case. In fact the inner case can be any oblique, though it cannot be a direct case. E.g. in the Western Australian language Martuthunira (Dench and Evans 1988, Dench 1995) the inner case can be

propriative (essentially comitative/instrumental  $\neq$ with $\emptyset$ ), privative ( $\neq$ without $\emptyset$ ), locative. In Indo-Aryan languages, this generalization is more marginal; Payne (1995) finds it in Kashmiri (Dardic) and in Punjabi itself, where locatives agree with the head N, cf. (4). Morphologically, the generalization is that direct cases cannot be stacked as innermost in a stacking configuration, cf. (5).

(4) [p nj b vicl- ] h l t *Punjabi* (Payne 1995: 289)  
 Punjab in-**fsg** situation.**fsg**.  $\neq$ the situation in the Punjab $\emptyset$

(5) **Generalization.** If a structural case morpheme is to appear, it must be on the periphery $\emptyset$  of the DP $\emptyset$  inflection (Richards 2013).

In present terms what sets oblique cases apart from direct case is their relational nature. Locative as in (4) can be construed as inclusion in location. In the familiar examples from English in (6) the comitative/instrumental preposition *with* reverses the relation conveyed by the genitive *of* (Levinson 2011), introducing a possessum of the head noun of the DP (the possessor).

(6) a. the hat [ $\subseteq$  of [the girl]]  
 b. the girl [ $\subseteq$  with [the hat]]

If oblique is an elementary relator, then the Aufnahme (i.e. linkers/stacking) phenomenon reflects the syntactic restriction in (7). The gist of it is that the Obl relator (perhaps  $\subseteq$ ,  $\supseteq$  as proposed here), requires a lexicalization of both its arguments within its maximal projection (in the languages where the relevant parameter is active). The internal argument is its complement, the external argument is introduced as a linker or a stacked affix. More technically, we may identify the relevant domain as the DP phase on whose edge the linker/stacked affix sits.

(7) **Syntactic Aufnahme (Obl).** The external argument of the K(ase) predicate is instantiated within the predicate $\emptyset$  maximal projection/the KP phase.

**Adjectives, Relative Clauses.** Recall now that one of the structural pieces of evidence in favor of the unification of linkers and stacking was that they occurred not only in genitive contexts (1)-(3) but also in adjectival contexts and in relative clauses. We argue that this corresponds to the generalization of the constraint in (7) to other predication structures, as in (7 $\emptyset$ ), recovering den Dikken & Singhapreecha $\emptyset$  (2004) insight on the connection between linkers and predication.

(7 $\emptyset$ ) **Syntactic Aufnahme.** The external argument of a predicate (K, A, C) is instantiated within the predicate $\emptyset$  maximal projection/its phase.

Within this framework we elucidate a construction of Punjabi which to our knowledge has been neglected by the generative literature, namely reduced relative clauses headed by perfect participles, where the external argument of the perfect participle surfaces in the genitive and agrees with the head noun (Payne 1995: 295), as in (8). Main sentences constructed with a participle, an absolute argument and a genitive argument yield a resultative meaning (Stronsky 2013).

(8) m $\epsilon$  kur-i-**d-a** kur-i-ne b na-ea mi:t khan-d-i a  
 I(f.) girl-fs-**of-ms/** girl-fs-erg done-msg meat.**msg** eat-progr-fsg be  
 $\neq$ I am eating the meat cooked by the girl $\emptyset$

In the generative literature, the existence of a connection between subjects and possessors is proposed by Johns (1992). We take our bearings from Johns $\emptyset$  treatment of Inuktitut and in (9) we treat the noun  $\neq$ meat $\emptyset$  as the head of the embedded predicate. Following our established practice, we treat the genitive as an elementary ( $\subseteq$ ) predicate  $\acute{o}$  which implies that the argument it embeds is interpreted as a possessor. The reading is akin to that indicated by Johns for Inuktitut, namely a possession predication between  $\neq$ the girl $\emptyset$  and  $\neq$ the meat cooked $\emptyset$  ( $\neq$ the meat is the girl $\emptyset$  cooked one $\emptyset$  paraphrasing Johns)  $\acute{o}$  of the type rendered by the possession verb  $\neq$ have $\emptyset$  in English  $\neq$ She has the meat cooked $\emptyset$  Not surprisingly, in (8) genitive alternates with ergative (-ne).

(9) [NP [<sub>AgP</sub> [PP( $\subseteq$ ) kur-i-**d**] -a] [NP ~~mi:t~~ b na-ea]] mi:t  
 |\_\_\_\_\_↑

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## Phase transitions. Referential strategies in the verbal domain

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In this presentation, we argue that referentiality in the verbal domain can be treated in parallel with reference in the nominal and the clausal domains. We present a system in which linguistic reference is a grammatical rather than a lexical or pragmatic matter (SHEEHAN & HINZEN 2011; ARSENIJEVIĆ & HINZEN 2012), and we claim that grammar processes reference by means of phases (CHOMSKY 2000 et seq.). In recent minimalist literature, phases are units of computation that maximize efficiency by successively processing small chunks of information as informational wholes. One and only one phase is processed at a time and then sent to the interfaces with conceptual-intentional and externalization systems (cf. GALLEGO 2012 for review). Because of that, each phase has a low degree of structural transparency with respect to elements outside it, and long-distance cyclic movement must use phase edges to proceed. The motivation for phases is thus mostly syntactic, although semantic arguments are often offered in that phases are seen as propositional wholes (CHOMSKY 2001, 2008).

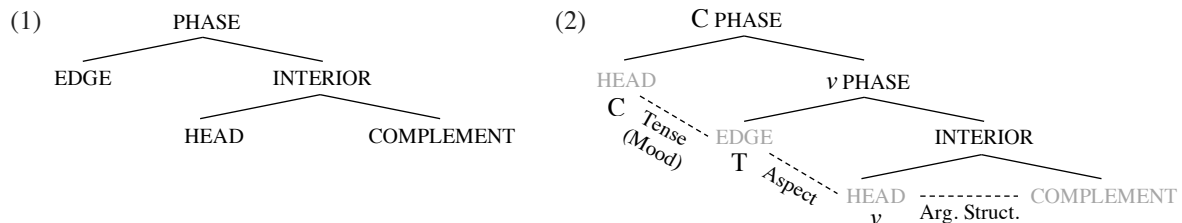
In this talk, we contest the widespread minimalist notion that syntax is a separate system from semantics, and present phases as units of both processing and referential significance (ARSENIJEVIĆ & HINZEN 2012). In this view, grammar is a principled factor in the organization of meaning in language, where meaning stands essentially for reference. As a result, computing phases amounts to computing structures deictically (i.e. with a perspective) so that they can be used in acts of reference to entities of different formal ontological types (SHEEHAN & HINZEN 2011). We implement this idea through the unified phasal schema in [1], in which similar referential strategies explain reference for the nominal (D), verbal (*v*), and clausal (C) phases alike. As in LONGOBARDI (1994, 2005), topological mapping principles attribute particular referential import to specific positions in the syntactic structure, and we use phases to establish syntactic loci: the phase interior (head + complement) yields conceptual (intensional) descriptions (including quantification of different sorts), and the phase edge yields referentiality by means of deixis, understood here as perspective from the center of the deictic frame or *origo* (BÜHLER 1934).

This argument, then, we apply it to analyze the referential import of the verbal *v* phase, related to the formal ontological category of events. In many accounts, an ontology of event reference is linked to the internal aspectual properties of predicates (*Aktionsart*), taking the notion of telicity as a fundamental category in that respect (VENDLER 1967; DOWTY 1979; BACH 1986; or KRIFKA 1989, among many others). THOMPSON 2006, for instance, claims that telicity is checked at the edge of the *v* phase, and therefore movement of DPs to that position results in telic readings of the object that have a direct impact on the telicity of the event. We claim that this set of ideas is incomplete and does not in fact yield a complete hierarchy of event reference. Telicity accounts focus on features of nominal objects included in events, and present referential possibilities for those objects, rather than for the events in and of themselves. That is to say, these views provide a way to use the *v* phase edge to interpret nominals within the topology of the sentence, particularly of *v*P (object shift, clitic doubling) (cf. DIERCKX et al 2016), just like CP provides a way to interpret nominals as focus, topic, etc. in many proposals in the cartographic tradition (RIZZI 1997, and sequels), but does not offer a topology of clause types (CHENG 1997).

We here offer instead a hierarchy of verbal reference that takes into account events

in and of themselves, and to that end we include inflectional categories beyond inner aspect, namely outer aspect, tense, and mood. Discussions of the referential import of these other inflectional notions are thus a central concern in the presentation, and we show that event reference should include (deictic) time and world location, and internal temporal structure provided by aspect. As a result, we are able to provide a monotonic hierarchy of referentiality for  $v$  that ranges from indicative to infinitive events via modality (the latter including imperatives and subjunctives). Our proposal, summarized in [2], applies a classical (neo-)Reichenbachian schema (COMRIE 1976, HORNSTEIN 1990, SIGURÐSSON 2004), in which T, at the edge of the  $v$  phase, deictically connects the eventuality expressed in  $vP$  (which includes aspectual information) to the clause-typed proposition introduced by its selecting C phase. That is to say, T only expresses tense when C is merged to TP, and T links the event  $vP$  to C. Before C is merged, T just introduces a relative ordering of the event in terms of internal temporal structure, which is what we aka aspect. The interior of the phase (in essence the  $v$  head + the lexical complement) yields indeed the descriptive content of the phase without its deictic anchoring.

The phase edge is thus paramount to our system because it both establishes the referential import of phases, and serves as the locus of connection between phases. For example, through K, the edge of D, nominals become part of the eventualities introduced by their selecting  $v$ ; through T eventualities become part of propositions, and through  $W$  (the edge of C), propositions become either connected to the actual world (matrix) or become embedded as part of other eventualities, in a process in which lower phases provide descriptive content to higher phases, and phases define sortal domains (RAMCHAND & SVENONIUS 2014). As a result, edges connect phases by making one phase become part-of another, thus making the former be an ontological part of the latter. Expressed in more general terms, phase edges implement phase transitions, a concept from thermodynamics in which certain states of matter with uniform physical properties reach a critical point (threshold or edge) and undergo an, often discontinuous, transition to some different state, like for instance a change in the ontological domain they belong to.



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## Spanish *estarse* predicates denote inchoative states

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**Data.** The Spanish copula *estar* ‘to be’ has a pronominal counterpart, *estarse* ‘to be-SE’, which shows a peculiar behavior in several respects, particularly in those related to agentivity. The following contrasts between *estar* and *estarse* show that the latter produces agentive forms:

- (1) a. ¡Estate callado/ quieto!  
Be.IMP-SE silent/ still!  
b. \*¡Está callado/ quieto!
- (2) a. Juan se estuvo callado/ quieto deliberadamente.  
Juan SE was silent/ still on-purpose  
b. ??Juan estuvo callado/ quieto deliberadamente.
- (3) a. Pedro obligó a Juan a estarse callado/ quieto.  
Pedro made A Juan to be-SE silent/ still  
b. ??Pedro obligó a Juan a estar callado/ quieto.

As has been pointed out by several authors (Maldonado, 1999; Sánchez López, 2002; Morimoto, 2008, 2011; Jiménez Fernández & Tubino, 2014; García & Gómez, 2015, a.o.), the subject of *estarse* constructions has an intentional (or controller) meaning, which is absent in the case of *estar*. Thus, only adjectives and PPs denoting properties involving control or intentionality combine with *estarse* (4), vs. (5).

- (4) El niño se estuvo {atento/ callado/ despierto/ quieto}.  
the child SE was attentive/ silent/ awake/ still
- (5) \*El niño se estuvo {atónito/ dormido/ enfermo/ en coma}.  
the child SE was puzzled/ asleep/ sick/ in coma

**Aspect.** In addition to control, other differences between *estar* and *estarse*, as the one shown in (6), have been explained in aspectual terms. In (6b), the children were already quiet when Juan entered, while in (6a) the children became quiet when Juan entered.

- (6) a. Cuando Juan entraba, los niños se estaban callados.  
when Juan came-in, the children SE were silent  
‘Whenever Juan came in, the children would get silent’  
b. Cuando Juan entraba, los niños estaban callados.  
when Juan came-in, the children were silent  
‘Whenever Juan came in, the children were silent’

**Previous analyses.** According to García & Gómez (2015), the previous facts are evidence of the non-stative status of *estarse*. They state that *estarse* constructions denote complex situations consisting of an achievement and a subsequent result state. This proposal is quite similar to Morimoto’s (2008), who postulates that the achievement subevent is not properly denoted, but just presupposed. However, both analysis have problems. Following Morimoto (2008), we will be in serious trouble to distinguish *estarse* from *estar*, whose denotation also presupposes a previous change of state (Marín, 2016). Following García & Gómez (2015), we will not be able to

distinguish between *estarse* and verbs like *desaparecer* ‘disappear’, that denote both an achievement and a subsequent (target) state (Kratzer, 2000).

**Proposal.** In order to solve these problems we propose an alternative analysis which is compatible with the philosophy of Jiménez-Fernández & Tubino’s (2014) analysis of an inchoative-agentive type of *se* in Spanish: *estarse* constructions denote inchoative states, i.e. those including the onset on the state (Marín & McNally, 2011). This can be formalized, following Piñón (1997), by means of the distinction between two types of boundaries: left and right boundaries. On the one hand, right boundaries correspond to the final points of situations (happenings in Piñón’s terminology), as the culmination part of accomplishments (Moens & Steedman, 1988) or (telic) achievements (*to arrive, to win*). On the other hand, left boundaries correspond to the inception of a situation, in our case the inception of a state. In this respect, it is important to note that inchoative states do not include a change of state in the typical terms (related to telicity) that are usually understood, and therefore, the state denoted it’s not a result state.

Following Piñón (1997), we adopt, then, a decompositional approach to event semantics, in which an event (e) can be decomposed into subevents, such as boundaries (b) and states (s). Thus, inchoative states, as those denoted by *estarse*, can be represented as in (7), and distinguished from stage-level states presupposing a previous achievement, as those denote by *estar* (8):

(7)  $\lambda x \lambda \langle b, s \rangle . \text{Pred}(x, \langle b, s \rangle)$

(8)  $\lambda x \lambda s . \exists b (\text{Pred}(x, \langle b, s \rangle))$

This way we can explain the differences observed in (6), as well as to solve the main problem identified in Morimoto’s (2008) analysis, given that *estarse* and *estar* denotation are clearly distinguished. Moreover, inchoative states are also to be distinguished from proper achievements followed by target states (*desaparecer* ‘disappear’), which can be represented as right boundaries of presupposed processes (p) (Piñón, 1997), followed by states:

(9)  $\lambda x \lambda \langle p, b \rangle \lambda s . \exists p (\text{Pred}(x, \langle p, b \rangle, s))$

An additional advantage of our analysis is that, contrary to García & Gómez (2015), we are not obliged to treat *estarse* constructions as involving telicity, which is quite undesirable, given that *estarse* constructions do not pass any test on telicity.

**Conclusion.** As a conclusion, it could be argued that the only relevant aspectual difference between *estarse* and *estar* is that the former includes an inchoative boundary. Given that the only difference between these two forms is the clitic *se*, it is plausible to identify it as the element triggering this inchoative meaning, as Jiménez-Fernández & Tubino (2014) argue. This accounts for control: given that states lack any progression, having the control of a state entails having the control of the inception of that state.

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In these last years the question about the nature of stativity become very central in the linguistic debate. This contribution takes into account the relationship between stativity and causation, particularly in a class of Italian verbs and it proposes a derivation where the causal link is due to the presence of a Small Clause, without implying change. The type of *v* in stative verbs is reviewed and its function is relational.

It is already known in the literature (Pylkkänen, 2000) that stativity and causation are not systematically opposed, such as for object-experiencer psychological verbs like *frighten* in (*Nightmares frightened John*), where the external argument causes the state of the experiencer internal object.

In this study a class of Italian verbs, called causative deadjectival Parasynthetics (Iacobini, 2004) hence DPV, is taken into account.

- (1) Daria abbellì la stanza.  
*Daria a-beautiful-perf.3sg. the room*  
*Daria made the room beautiful.*

A test of lexical completion on 56 Italian native speakers confirms that DPVs are productive with both animate and inanimate subject. We show that the reading which arise with inanimate subject (in sentence 2) is not the same of the one for animate subject (sentence 1).

- (2) Il divano rosso abbellì la stanza.  
*The red couch embellished the room.*

Several syntactic-semantic tests show stativity of sentences like (2), and eventivity of sentences like (1).

a. Interpretation (epistemic/deontic) under modal *dovere*, 'must'. Stative verbs under must generate both an epistemic and a deontic reading, while eventive verbs only a deontic reading (Giorgi & Pianesi, 1997). As expected, DPVs with inanimate subjects can receive an epistemic interpretation, which further entertains a present constraint.

- (3) Il muro è nero, la vernice deve scurirlo (in questo mometo)! (epistemic)  
*The wall is black, painting must darken it (at this moment).*

While DPVs with animate subject receive only a deontic interpretation, and a future constrain.

- (4) Il muro è nero, Daria deve scurirlo (domani)! (deontic)  
*The wall is black, Daria must darken it (tomorrow).*

b. Interpretation under adverbial *già*, 'already' (Mittwoch, 2014).

This adverb can combine only with lexical and derived statives (perfects, progressives). DPVs behave as expected: when inanimate subject they are grammatical under *già*, while when animate subject they are strongly odd (and not ungrammatical for the fact that simple present tense can be interpreted with on-going semantics similar to progressive).

- (5) La nuova collezione di foto abbellisce già il Museo degli Uffizi.  
*The new photos' collection already embellishes the Uffizi Museum.*

- (6) ??Il nuovo Dirigente abbellisce già il Museo degli Uffizi.  
*The new Director already makes beautiful the Uffizi Museum.*

c. Temporal narrative contribution.

Stative verbs do not contribute on the temporal progression of narrative discourse, while eventive verbs do (Dry, 1983; Katz, 2003).

- (7) Mary arrived. Her daughter sat down on the couch and her dog barked.

- (8) Mary arrived. Her daughter was sitting down and her dog was barking.

DPVs behave accordingly in relation to the (in)animacy of their subject.

- (9) Daria è arrivata, ha imbiancato la tela e si è seduta sulla sedia.  
*Daria arrived, she whitened the canvas and she sat down on the chair.*

- (10) La vernice è stata stesa, ha imbiancato il muro e schiarito la stanza.  
*The paint was drawn, it whitened the wall and it lightened the room.*



The causative semantics in both readings of DPVs is pointed out by paraphrases (17 and 18).

(11) Il pittore ha imbiacato la tela. → The painter did something to cause that the canvas is white.

(12) La pittura ha imbiancato la tela → The existence of the painting on the canvas caused it to be white.

Thus, DPVs with inanimate subjects are stative and causative. We must separate the notion of cause from the notion of change (Copley & Harley, 2015), in other words, it is possible to have causation without change, since statives cannot involve change and change involve the intervention of an energetic force in the system.

We assume that the relationship between the existence of the external argument and the state of the internal argument is guaranteed by the little  $v_{BE}$  head. Parallel to the functional head  $v_{BECOME}$  for eventives, which introduces energetic force (Copley & Harley, 2014), this functional head represents the introduction of a non-energetic force, called abduction, which is introduced in the system by the speaker. In fact, energetic force (*John broke the egg*), exists independently from the presence of a sentient individual and consequently its effects (*The egg is broken, because of John*). In case of non-energetic force (*Pictures embellished the room*), no assumptions of the internal object's state are possible without a sentient individual who registers them (*The room is beautiful, because of pictures*) thanks to her logic capacity to found a link between the external argument and a presumed state of the internal one.

This is, no change is involved on the internal object, but a state is asserted for it, the derivation lacking the eventive/change part ( $v_{BE}$  head lacks force).

(13) a. Le foto abbelliscono la stanza.

*Pictures make the room beautiful.*

b. [<sub>XP</sub> [<sub>DP</sub> le foto]... [<sub>VP</sub> [<sub>V<sub>BE</sub></sub> abbellire ] [<sub>SC</sub> [<sub>DP</sub> la stanza] [<sub>VP</sub> <bella>]]]]

c. Because of the existence of the pictures the room is beautiful.

The difference between a non-causative stative and a causative stative is parallel to the difference between a non-causative eventive and a causative eventive, namely the presence of a SC in the derivation (Folly & Harley, 2005; Schäfer, 2008).

A standard stative contains a  $v_{BE}$  head, which founds a relation between the external argument and the internal one, thus between two individuals. In this case, no state of the internal object is asserted (no SC) and no causal link is established.

(14) a. Mary loves Daria.

b. [<sub>XP</sub> [<sub>DP</sub> Mary]... [<sub>VP</sub> [<sub>V<sub>BE</sub></sub> love] [<sub>DP</sub> Daria]]]

The proposal made in this communication, thanks tries to uniform the treatment of causatives, independently from their eventuality, by means of the separation of causation and change. The little structural difference between eventive causatives and stative causatives (namely the nature of  $v$ : the presence/lack of event argument) is supported by the morphological similarity of eventive and stative DPVs.

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## Argument Structure and Event Structure in Hebrew Psych Nominalizations

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Nominalizations of Object Experiencer (OE) verbs in English exhibit semantic restrictions which do not exist in the corresponding verb (Rappaport 1983, Grimshaw 1990 a.o.). The first semantic effect taking place in many OE nominals in English is the loss of the causative meaning conveyed by the verb. The nominal in (1b) denotes the mental state (but not its causation):

- (1) a. The student annoyed the teacher.  
 b. The students' annoyance (\*of the teacher)/the annoyance of the teacher (\*by the student).

A few OE nominals which retain a causative meaning when coerced via the realization of all arguments, e.g. *humiliation*. However, while OE verbal predications are felicitous with both agents and causes, the nominal predications are agentive-only (2b) (Pesetsky 1995 a.o.):

- (2) a. The reporter/the article humiliated him.  
 b. The reporter's/\*the article's humiliation of him/his humiliation by the reporter/\*by the article.

Hebrew, a language with rich verbal and nominal morphology, has OE nominals which may be causative, derived from verbs belonging to two distinct morphological classes (hereby 1 and 2):

- (3) a. *ha-politika'i silhev/hifxid et ha-kahal*  
 the-politician enraptured-C1/frightened-C2 ACC the-crowd  
 'The politician enraptured/frightened the crowd'.  
 b. *ha-šilhuv/ha-hafxada šel ha-kahal al-yedey ha-politika'i*  
 the-enrapturing-C1/the-frightening-C2 of the crowd by the-politician  
 'The enrapturing/the frightening of the crowd by the politician'.

While causative nominals in Hebrew are available in principle, not all verbs produce them, and as such behave like their English OE counterpart, being semantically non-causative and stative:

- (4) a. *ze bilbel/zi'aze'a/ye'eš oti*  
 it confused/shocked/discouraged-C1 me  
 b. *ani be-macav šel bilbul/za'azu'a/ye'uš*  
 I in-a-state of confusion/shock/despair-C1

This behaviour is characteristic of only one of the two classes, Class 1. This class, while producing some causative nominals (see above), has many nominals which are stative only, or otherwise ambiguous between causative and non-causative readings. Class 2 nominals, on the other hand, are not only obligatorily-causative/eventive (i.e. denoting a change of state), and denote a causative change of state performed by an agent even in the absence of the external argument (5a), and in fact in the absence of any argument at all (5b):

- (5) a. *hat'ayat ha-carxanim ha-mexuvenet*  
 the-deception-C2 (of) the-consumers the-intentional  
 'The intentional deceiving of the consumers.'  
 b. *hat'aya* 'decieving (\*the state of being deceived)'.

Moreover, the two classes differ in a second aspect: argument realization patterns. Class 1 nominals, although being morphologically-active forms, sometimes allow both an agentive argument structure as well as a non-agentive argument structure which is available for their middle-form Subject Experiencer (SE) alternates. As in e.g. (6a), middle verb introduce (optional) non-agentive participants via a characteristic preposition *mi/me-* ‘from’. Its active-form nominal counterpart allows the same realization pattern (5b) [cf. (3b) and (6b)]. Crucially, this realization pattern is ruled out for all Class 2 nominals:

- (6) a. *ha-kahal hištalhev (me-ha-neum)*  
the-crowd became.enraptured-MID.C1 from-the-speech  
‘The crowd became enraptured (from the speech)’.
- b. *ha-hištalhevut (šilhuv) šel ha-kahal (me-ha-ne’um)*  
the-becoming.enraptured-MID.C1 causing.rapture-ACT.C1 of the-audience **from**-the-speech  
‘The enrapturing of the crowd from the speech’.
- c. *ha-hafxada šel ha-kahal (\*me-ha-ne’um)* [cf. (3b)]  
the-frightening-C2 of the crowd **from**-the-speech  
‘The enrapturing/the frightening of the crowd’.

The variation in the semantic properties of OE nominals in Hebrew then calls for an explanation: why is it that one class of nominals behaves more or less like its English counterparts, while the other exhibits behaviour more characteristic of Hebrew passives (i.e. implying an agent even in its absence)? I argue that this variation can be attributed to morphology, and more specifically, to differences between the two morphological verbal patterns housing Class 1 vs. Class 2 verbs, claimed for in the literature on the Hebrew verbal system (Doron 2003). While the morphological pattern housing Class 1 verbs has a middle-form SE alternate, while the form hosting Class 2 verb does not (Doron 2003: 42); it has been previously claimed (Alexiadou and Iordăchioaia 2014) that in Greek and Romanian, non-agentive Psych nominals are only available for OE verbs which have alternating SE forms, both being eventive. I claim that similarly in Hebrew, a non-agentive realization pattern is available due to the existence of morphologically-related middle SE alternates for Class 1 verbs, but its absence for Class 2 verbs. This in turn also accounts for the latter’s obligatorily-causative/eventive semantics (5b), the ruling out of non-agentive readings also blocks non-causative, stative readings.

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## On the difference between phonetic and phonological processes

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Early generative grammar models (e.g. Chomsky & Halle 1968) assumed that phonetic implementation is universal and automatic, while language-specific processes concerned with sound are phonological. From detailed phonetic studies in the 1970s and 1980s (such as Keating 1979), we know that most phonetic processes are language-specific, too, and therefore should be considered part of our grammatical knowledge. This observation has led some scholars in the field of Optimality Theory to abandon the strict distinction between phonetics and phonology (e.g. Flemming 2003; Steriade 2001). Others take the generative modularity seriously and include phonetics as a separate component in their grammar model (e.g. Bermudez-Otero 2007, Boersma 2007), but then are faced with the question how to distinguish between phonetic and phonological processes.

In this talk, I will illustrate this problem with two phenomena in West-Germanic languages, namely degemination of fake geminates and the allophonic distribution of plosives. With respect to the first, both Dutch and German do not allow fake geminates within prosodic words (p-words), see (1). Across prosodic word boundaries, fake geminates can occur, but are often degeminated, see (2).

(1)	Dutch:	(zɛt+tə)	[zɛtə]	‘to put (past)’
	German:	(hat+tə)	[hatə]	‘to have (past)’
(2)	Dutch:	(bo:t)(tɔχt)	[bo:t:ɔχt]~[bo:t'ɔχt]~[bo:tɔχt]	‘boat tour’
	German:	(ʃif)(faet)	[ʃif:aet]~[ʃif'aet]~[ʃifaet]	‘ship travel’

I argue that both languages have a phonological degemination process within p-words (as in (1)) and an optional phonetic degemination process across p-words (as in (2)), applying simultaneously.

With respect to allophones of plosives, I will show that traditional considerations of well-defined contexts that can be captured in categorical rules or processes are in conflict with the large variability found in the data.

Following the data illustrations, I will give a general discussion of criteria proposed in the literature for distinguishing phonological from phonetic processes, such as obligatory versus optional application, categorical versus gradient behavior, universality versus language-specificity, well-defined environments versus across-the-board application, etc., and will critically evaluate their use.

# The Roots of Consonant Bias: A Psycholinguistic Investigation of Phonological, Orthographic and Semantic Effects on Lexical Decision in Hebrew

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**Introduction.** The Consonantal Root Hypothesis suggests that in Semitic languages, an abstract morpheme of (usually) three consonants is an organizing principle of the lexicon. Previous psycholinguistic experiments have supported the cognitive reality of roots by showing that the consonants (or consonant graphemes) of a word in Hebrew facilitate targets sharing these consonant graphemes, whether the prime constitutes a word or not, and with semantic relations playing only a limited role (Frost et al. 1997 and onward). However, previous work has not taken into account the perceptual consonant bias of languages in general (Nespor et al., 2003) and the consonant bias of the Hebrew writing system in particular. Following Bat-El (1994, 2003), I claim that the consonant bias observed in priming tasks in Hebrew can be accounted for equally well within a universal framework, if this bias is taken to be an inherent feature of the lexical retrieval mechanism.

The current work used two overt auditory lexical decision tasks to test the influence of phonological, orthographic and semantic similarities using separate conditions, in the auditory modality. The results of experiment 1 present a similar consonant facilitation effect in every condition which included identical stem consonants: words which share meaning and 3 identical graphemes (+Semantics, +Orthography), words which do not share meaning but share all three consonant graphemes (-S,+O), and words which share 2 graphemes or less (-S,-O). Experiment 2, using longer SOAs and primes, again showed a similar pattern in all relation types ([+S,+O], [-S,+O], and [-S,-O]). This time the effect was inhibitory for most subjects, and facilitatory for a few. Facilitation was highly correlated with the average RT of the subject: slow participants tended to exhibit strong inhibitory effects and fast participants tended to maintain the facilitatory pattern.

**Goal.** Most psycholinguistic data which were taken to support the Root hypothesis were obtained using the visual modality, and furthermore, no experiment (to the best of my knowl-

Table 1: Conditions of the Experiment

	Relation Type	Prime	Target
1.	[+S, +O]	sovev סובב 'turned trans.'	histovev הסחובב 'turned reflex.'
2.	[-S, +O]	jalal שלל 'negated'	hiftolel השחולל 'gone wild'
3.	[-S, -O]	nikef ניכש 'weeded'	hitnakef התנקש 'assassinated'

edge) attempted to distinguish between phonological and orthographic representations of the stem consonants. The objective of the current work was to effectively tease apart between orthography, phonology and semantics. An auditory task was used in order to minimize the effects of orthographic forms on lexical decision.

**Experiment 1.** Forty-eight participants were recruited for the study. Critical items were prime-target pairs with one of three possible relations: (i) share all three consonants and graphemes and have related meanings (1 in Table 1); (ii) share all three consonants and all graphemes, but have distant meanings (2 in the table); (iii) share all three consonants, but only two graphemes (3). In the last condition, the third remaining grapheme is of a homophonous consonant, such that the words sound as if they share a root. For example, the words 'fataf' *wash* and 'hifstatef' *participate* sound as if they share a root, but as evident in the orthographic forms, in one word the consonant *t* is represented by the grapheme ת (in *hifstatef* הִשְׁתַּתֵּף); and in the other by ט (in *fataf* שָׁטַף). Under a root approach, such items are not morphologically related. An example of the second relation is that

between the words ‘rigel’ *spied* and ‘hitragel’ *got used to*, which share all three stem consonants and all three graphemes (ריגל and ההרגל), but have distant meanings (see Table 1 for 2 more examples). According to most psycholinguistic views on roots, such items share a root (although in the traditional root approach, e.g. Moscati 1980, only words which are derivationally related share a root). The items in the first condition are morphologically related under any morphological approach.

Baseline trials included words which were not semantically or phonologically related to targets, with no more than 1 stem consonant in common. In half of the trials, the target was a non-word, compatible with the phonology of Hebrew verbs. Primes and targets were recorded in different voices, primes were compressed to 75% their original length and their volume was lowered by 15 decibels compared with targets. 4 lists were used in a latin square design, such that every participant was exposed to a target word only once (prime-target in one of two orders, or the baseline condition for either word).

In a 3x2 repeated measures ANOVA of Relation Type ([+S,+O], [-S,+O], [-S,-O]) by Relatedness (baseline vs. target items), a significant facilitation effect of relatedness obtained in all relation types [ $F(1,47) = 14.38, p < .001, \eta_p^2 = .23$ ], without an interaction between relation type and relatedness.

**Experiment 2** ( $N = 32$ ) aimed to reveal possible later effects of the same primes on their related targets. The experimental items were the same, only this time primes were not compressed and were presented at the same volume as targets, and the SOA was lengthened by 150 ms, to 300 ms. The main effect in RTs analysis was again of Relatedness [ $F(1,30) = 5.3, p < .03, \eta_p^2 = .61$ ], without an interaction with relation type. As mentioned above, the inhibitory effect of phonological relatedness was subject-dependent. More particularly, the magnitude of the effect was highly correlated with RTs: the slower a subject responded, the more pronounced inhibition became [[+S,+O]:  $r = -.88, p < .05$ ; [+S,-O]:  $r = -0.74, p < .05$ ; [-S,-O]:  $r = -0.67, p < .05$ ].

An accuracy analysis revealed an orthographic effect: subjects made significantly more mistakes with [-S,-O] related items compared with other experimental and baseline conditions [ $F(2,48.26) = 6.58, p = .005, \eta_p^2 = .1799$ ].

**Conclusion.** The current experiments provide new data regarding the nature of consonant bias in Hebrew, by comparing words which share stem consonants and consonant graphemes in a systematic manner. The results follow the predictions of a model of lexical retrieval which has a consonant bias, in yielding a similar phonological facilitation effect for words “sharing a root” ((1) and arguable (2) in Table 1) and words “not shar-

ing a root” ((2) and arguably (3) in the Table). Similar results have previously been obtained for French and English as well (Delle Luche et al., 2014), the difference being their usage of non-words as primes. Hebrew is usually not compared with French and English in this respect, because as mentioned above, the consonant bias of Hebrew received mostly morphological accounts tailored for Semitic languages.

A root-based account of consonant bias faces two challenges. First, it should account for the results of the current experiment. This can be done within a Root approach by assuming that a root is a strictly consonantal unit with no meaning, with orthography and derivational relations playing a limited role – a view that would shorten the distance between the root and universal approaches. Relatedly, a root approach should explain why the results mimic findings from non-Semitic languages. If some “root-like” consonant-biased activation pattern is a general feature of lexical retrieval, the psycholinguistic evidence in favor of the consonantal root are weakened considerably.

In addition, the results show an orthographic effect on accuracy with long SOAs but not with short ones (no effect on RTs), suggesting that orthographic representations become available at a later stage during processing in Hebrew. As far as I know, this late orthographic effect was not previously documented for Hebrew.

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# Pharyngeal Minds: A Study of Bi-Dialectal “Listeners” in Modern Hebrew

Noa Bassel and Si Berrebi, Tel Aviv University

**Introduction.** We report a pilot of a lexical decision task experiment performed on two groups of second generation Hebrew speakers: a group of Yemenite descent Israelis (YD), and a group of European descent Israelis (ED). Our participants speak similar dialects of Modern Hebrew, but were exposed to different dialects during acquisition; we can refer to the YD participants as “listeners” of the Yemenite dialect. Our goal is to show whether and how this variation affects their perception and underlying phonological inventory.

We manipulated Hebrew words such that two different sounds have been switched one with the other: the pharyngeal fricative [h] and the velar fricative [x]. The former is a marked sound in Modern Hebrew, characteristic of Middle Eastern, Asian and African dialects. The latter is an allophone of the uvular stop /k/ in all Hebrew dialects. The two sounds were merged in European dialects of Hebrew, a merger which was carried into most dialects of the language. The dual status of [x] is presented in (1):

- (1) *hiskir-saxar* ‘rent’, trans., intrans.  
**all Hebrew dialects**  
*hicxik-caxak* ‘cause to laugh’, ‘laugh’  
**only non-pharyngeal dialects**  
*hichik-cahak*  
**only pharyngeal dialects**

As [h] and [x] originate from different phonemes, they are represented by different graphemes in the orthographic system, but for most Hebrew speakers today they are phonetically indistinguishable. This is an appealing test case in two respects: (i) it involves consonant merge, which is much less common than

vowel merge as a cross-dialect factor. (ii) its widespread, more prestigious variant is not supported by the writing system. This fact provides an opportunity to test the influence of prestige separately from that of orthography.

For comparison, in a priming study with “listeners” of the r-dropping New York vernacular and General English speakers, Sumner and Samuel (2009) found a bias in favor of the more prestigious GE in both groups (putting other differences between the groups aside). It is impossible to determine whether to attribute this finding to the social context or to the writing system. For the current study, many speakers are available who had little or no exposure to the phonologically transparent dialect, while they were naturally exposed to the writing system. This allows us to test whether orthography can effect the phonological representation of speakers in accordance with the marked dialect.

All participants of the study do not distinguish between [h] and [x] in their production, but half of them were exposed to [h] during acquisition. Note that the manipulated words are incompatible with the input of both groups, since words with an underlying /k/ which is pronounced with [h] are not attested in any dialect. A difference between the two group in the processing of the manipulated words would have several implications:

(i) It indicates the existence of an implicit dialect among speakers, including a different phonemic inventory.

(ii) It is informative for general analyses of phonological processing.

As we see it, the crucial difference between the YD groups and the ED groups is the patterns of mapping between the two sounds. The YD group have a mapping rule from their underlying /h/ to common

[x], but not the other way around. On the other hand, for the ED group /h/ is not part of the phonological inventory, but a marked sound of some Hebrew dialects; a surface [h] is mapped into /x/.

If an intermediate access model of speech recognition is assumed, in which phonemic classification plays a role in lexical recognition (e.g. Chomsky & Halle, 1968; McClelland & Elman, 1986), the result of switching [x] with [h] would be harder to reconstruct for the YD group than for the ED group, because for the former the two sounds lead to different representations. Since none of the participants had prior experience with the mismatch items, a direct access approach with auditory signals connected directly to words (e.g. Marslen-Wilson & Warren 1994) would predict no difference between the groups for mismatch items.

**The experiment.** All 12 participants are speakers of non-pharyngeal dialects, aged 23-37 (mean 29.5); six participants had a mother or two parents who speak the Yemenite pharyngeal dialect, and six had no exposure to pharyngeal dialects at a young age.<sup>1</sup> Participants were instructed to respond as quickly and as accurately as possible to auditory stimuli by pressing *j* for a real word and *f* for a non-word. The design included 3 blocks, in each of them different target types: (1) Hebrew words pronounced without pharyngeal sounds; (2) Hebrew words pronounced with pharyngeal sounds; (3) manipulated Hebrew words with switched [h] and [x] sounds (the mismatch condition).<sup>2</sup> The third block included twice the number of target items, of which half were introduced in the mismatch condition and half in the pharyngeal condition. The items were controlled for length and frequency, and distributed evenly between 3 lists such that a participant heard every item once, in one of the blocks. Each block included 7 target items with [x], 7 with [h], 14 fillers which did not contain these sounds and 28 non-words (\*2 in the third block).

<sup>1</sup>These data were collected via an exit questionnaire; participants were oblivious to the subject of the experiment.

<sup>2</sup>The pharyngeal and non-pharyngeal dialects differ by several features other than the production of [h]-[x], and our input reflected them accordingly. For thorough phonetic and sociolinguistic studies of the Yemenite dialect see Morag (1964), Gafter (2014).

**Results.** The Yemenite group had longer RTs and a significantly higher rejection rate of words that were pronounced with [h] instead of [x]: 45% vs. 5%. An overall RTs analysis revealed no statistically significant results, probably due to the small sample, though ED speakers seemed to respond more slowly to words pronounced by the Yemenite speaker (in both the pharyngeal and mismatch blocks).

(2) Target conditions and rejection rates:

	/h/		/k/	
	YD	ED	YD	ED
<b>Pharyngeal</b>	[maħak]		[mexonit]	
Rejection rates	1%	4%	7%	3%
<b>Non-pharyngeal</b>	[maxak]		[mexonit]	
Rejection rates	2%	0%	5%	0%
<b>Mismatch</b>	[maxak]		*[meħonit]	
Rejection rates	5%	2%	45%	5%
	'erasure'		'car'	

**Conclusion.** The preliminary results of this study (i) support mediated access models for lexical retrieval, by showing that the acceptance of ill-formed input varies across speakers in accordance with their ability to map [h] to [x]; (ii) show that some speakers of non-pharyngeal dialects – the Yemenite group – maintain a covert underlying distinction between the sounds; (iii) imply that for Hebrew speakers, auditory lexical retrieval processes have no access to orthography at certain stages of processing; or possibly, that different graphemes which represent the same sound might have overlapping representations.

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# Short answer fragments: Derivation by movement and deletion?

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Speakers frequently use nonsentential expressions, or *fragments* (Morgan, 1973), (1) instead of full sentences (2). Despite their reduced form, given an appropriate context, fragments express the same propositional content as full sentences do.

- (1) a. Nice dress. (Stainton, 1995, 293)
- b. [Flight attendant to passenger:] Something to drink? (Stainton, 2006, 123)
- (2) a. This is a nice dress.
- b. Would you like something to drink?

Merchant (2004) explains this behaviour by arguing that fragments are syntactically derived from full sentences. He assumes syntactic movement of a constituent to a left-peripheral position and subsequent silencing, i.e. non-articulation, of the remnant on PF. This predicts that only constituents which may appear in a left-peripheral position are possible fragments. I present a series of experiments investigating this prediction.

**Experiment 1: Complement clause topicalization.** Merchant et al. (2013) report two acceptability rating studies supporting Merchant's (2004) account. In their experiment 1 participants find complementizer-less complement clause (CC) short answers (3a) less acceptable than those with an overt complementizer (3b). The authors claim that this pattern matches the acceptability of the CCs as topics (3c).

- (3) What did Susan confess? (Merchant et al., 2013, 32)
- a. \*(That) she stole from her roommate. (ok as indirect answer)
- b. That she stole from her roommate.
- c. \*(That) she stole from her roommate, she confessed.

Nevertheless, to my knowledge, the grammaticality pattern in (3c) has not been empirically verified. Furthermore, some of the items in the study have factive matrix verbs, which prefer – if not require – CCs with overt complementizers (Kiparsky & Kiparsky, 1970; Hegarty, 1992). My first experiment thus replicated the study by Merchant et al. (2013) in German with non-factive matrix verbs only and testing the CCs both as fragments and topicalized CCs (4) on a 7-point scale.

- (4) [Context: A famous painting has been stolen from the museum. The newscaster is reporting on the investigation of the robbery.]  
Newscaster: "Was glaubt Kommissar Wagner?"  
Reporter:
  - a. "Der Täter ist durch das Fenster eingestiegen (, glaubt er)." V/2
  - b. "Dass der Täter durch das Fenster eingestiegen ist (, glaubt er)." V/L  
'What does inspector Wagner believe' – '(That) the criminal entered through the window (he believes).'

As figure 1 shows, verb-last CCs are significantly better as fragments ( $z=-4.47$ ,  $p<.001$ ) but not topics, than verb-second ones<sup>1</sup>. A replication of the same study in American English revealed that CC short answer fragments did neither significantly differ in acceptability depending on

<sup>1</sup>All statistical analysis were done with Cumulative Link Mixed Models for ordinal data in R.

the presence of the complementizer. This indicates that CC topicalization is not the ideal testing ground for Merchant’s theory.

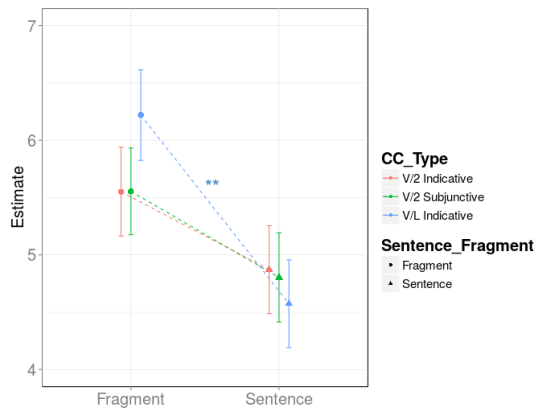


Figure 1 Mean judgments in Exp. 1.

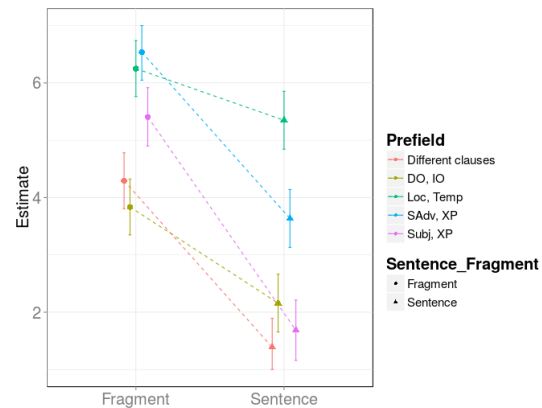


Figure 2 Mean judgments in Exp. 2.

**Experiment 2: Multiple prefield constituents.** My second experiment focuses on a well-known restriction on topicalization: Double prefield constituents in German. German declarative matrix clauses are generally assumed to be strictly verb-second, so that only one constituent is allowed to precede the verb in the so-called prefield. Despite this, Müller (2003) reports a large number of apparent violations of this constraint, which taken from the literature and e.g. newspaper corpora. Whatever the underlying structure of the prefield might be, Merchant’s (2004) approach predicts only those configurations to be possible fragments which are acceptable in the prefield. I tested three of the presumably acceptable<sup>2</sup> and two of the ungrammatical configurations<sup>3</sup>, both as short answer fragments and as topics. All stimuli were presented in a context (5) licensing the double prefield configuration, if grammatical at all.

- (5) [Context: The waiter asks a group of guests who ordered what.]  
 Tim: “Wer hat denn jetzt was bestellt?”  
 Paul: “Ich das Schnitzel (habe bestellt)” (Subj + XP)  
 ‘So who ordered what?’ - ‘Me the cutlet.’

The data in figure 2 show that most prefield configurations behave differently as fragment and topic, which is reflected in significant interactions of prefield type and fragment/sentence. Specifically the Subject + XP condition’s (5) acceptability as a fragment is hard to explain under Merchant’s account. I argue that this constitutes a challenge to the movement and deletion theory of fragments.

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<sup>2</sup>(1) Locative + temporal PP / adverb, (2) direct + indirect object, (3) subject + adverb.

<sup>3</sup>(1) Extraction from different clauses, (2) subject + XP.

## Different syntax and common semantics of referentially vague indefinites

Makoto Kaneko (Okayama University)

### 1. Introduction

This study claims that *referentially vague indefinites*, while semantically defined in a uniform way, have rather different syntactic structures. According to Giannakidou & Quer (2013), these indefinites require, as in (1), that, in at least two alternative worlds in Modal Base compatible with Speaker's belief, their denotation should receive distinct values.

(1) A referentially vague indefinite  $\alpha$  is appropriately used iff  $\exists w_1, w_2 \in M_B(s): [[\alpha]]^{w_1} \neq [[\alpha]]^{w_2}$

Referential vagueness is detected by i) Speaker's ignorance in episodic contexts, and ii) a narrow scope existential reading with necessity modals or imperatives. It is illustrated by Spanish determiner *algún*, as in (2a), by Italian intersective modifier *qualche*, as in (2b), and by a pronominal *WH ka* (formed by a WH word, *nani* 'what', *dare* 'who', etc. + a particle *-ka*) in Japanese, as in (2c).

(2)a. Juan tiene que estar en **alguna** habitación de la casa. (Alonso-Ovalle & Menéndez-Benito 2010)

'There must be some room in the house where Juan is.'

b. La madre deve essere da **qualche** parte. (Zamparelli 1997: 301)

'There must be some place where the mother is.'

c. **dare ka** otoko-ga goei-no yaku-o hatasa-nakerebanaranai. (attested example)

**WHO KA** man-NOM guard-GEN service-ACC accomplish-must

'There must be some man (lit. WHO-KA man) that serves as guard.'

Kinuhata & Whitman (2011) observe that, although being originally a sluiced parenthetical ROOT question, as glossed by (3a), a pronominal *WH ka* is reanalyzed as an appositive indefinite pronoun, as in (3b): the particle *-ka* respectively marks a question or an existential quantification. According to these authors, the reanalysis is confirmed by the fact that a pronominal *WH ka* may occur in modal or imperative sentences where the referent's identity is not at issue, as in (2c).

(3) Taro-wa **nani ka** syoosetu-o yon-da.

Taro-TOP **WHAT KA** novel-ACC read-PST

a. 'Taro read- what is that ? - a novel.' [parenthetical ROOT question]

b. 'Taro read something, a novel.' [indefinite pronoun]

### 2. Hypothesis and its arguments

I however propose to analyze a pronominal *WH ka* as a sluiced parenthetical NON-ROOT question (*interrogative sentence radical* in Krifka's (2011) terms), conveying not a speech act QUESTION but only an *inquisitive potential* (in Inquisitive Semantics' terms). The syntax and semantics of *nani ka* 'what KA' in (3) are thus respectively represented by (4a) and (4b).

(4)a. syntax: TARO-wa [NP [CP [TP *pro* [VP **nani** (da)]]] **ka**] [NP syoosetu]-o yon-da

Taro-TOP WHAT (COP) Q novel-ACC read-PST

b. truth-conditional (at-issue) meaning:  $\exists x$  [READ (t,x) & NOVEL(x)]

conventional implicature :  $\lambda w \lambda y \in THING$  [BE<sub>ident</sub> (tX(READ (t,x) & NOVEL(x)), y)(w)]

In (4a), a *WH ka* is a CP left-adjoined to the host NP; a WH word is a complement of an implicit copular whose subject is a *pro* (cf. Fukaya 2012). In (4b), being parenthetical, *WH ka* conveys a conventional implicature. As regards the semantics of *pro*, I adopt the E-type analysis according to which it is interpreted as a definite description (ex. *the novel that Taro read*). The implicit copular is noted by an identificational BE which is a two-place predicate : one of its argument is the *pro* and the other, a variable *y* whose alternative domain is provided by the WH word. The conventional implicature in (4b) thus says that the novel that Taro read is identified at a world *w* with one member of the contextually provided set of things. I further argue that, for an expression to be an inquisitive potential (i.e. for Speaker to be able to potentially invoke an issue of selecting one member of the alternative domain), there should be at least two different alternatives for her / her. This condition

boils down to the requirement in (5) that, in at least two alternative worlds in Modal Base compatible with Speaker's belief, the *pro*'s denotation should receive distinct values.

(5)  $\lambda w \lambda y \in D$  [ $\text{BE}^{\text{idont}}(\text{pro}, y)(w)$ ] is appropriately used iff  $\exists w_1, w_2 \in M_B(s)$ :  $[[\text{pro}]]^{w_1} \neq [[\text{pro}]]^{w_2}$

(6)a. Bea hit someone - you will never guess **who** - in the face. (Kluck 2011: 293)

b. There must be a man - it doesn't matter **who** - that serves as guard.

According to this analysis, a prenominal *WH ka* is parallel to English sluiced parentheticals, as in (6a,b). A difference is that a sluiced non-root question may appear bare when used parenthetical in Japanese, which is not the case in English. At least three arguments support my hypothesis.

(I) The following two examples indicate that a non-root question may appear bare in Japanese: in (7a,b), either a copula *da* or a post-position *kara* ('from') intervenes between *WH* and *ka*. So the whole sequence should be analyzed not as an indefinite pronoun but as a question. Moreover, in (7a), a particular referent isn't at issue, and in (7b), a  $\langle \text{WH-from-Q} \rangle$  occurs in an imperative sentence. These sequences therefore cannot be analyzed as root questions, but as non-root ones.

(7)a. [**dare da ka**] *yuumei haiyuu-no deteiru bangumi-no sityooritu-ga*  
**WHO COP Q famous actor-GEN appear programm-GEN viewing rate-NOM**  
*huruwa-nai to, ninki-ni kageri, to kaku. (google)*  
 sluggish if, popularity-LOC decline, COMP write

'Suppose that some [*lit.* who that is] famous actor appears in a program. As soon as its viewing rate is sluggish, (the media) writes his popularity is in decline.'

b. [**dare-kara ka**] *okane-o kari-te, tototo kaesi-tyai-nasai. (google)*  
**WHO-from Q manny-ACC borrow-and quickly return-finish-HONOR.IMPER**

'Borrow money from someone [*lit.* from whom] and hurry up to return your debt.'

(II) If a prenominal *WH ka* were a root question, Speaker's ignorance should not be neutralized. This however is not the case. In (8), *nani ka* 'what KA' may take narrow scope. Crucially, this example may be followed by «Taro read *War and Peace*, and Ziro, *Dear Life*.» In this case, the alternative set includes at least two novels, but Speaker knows well what book each student read.

(8) *dono gakusee-mo nani ka syoosetu-o yon-da.*  
 each student-MO **WHAT KA novel-ACC read-PST** 'Every student read some (WHAT-KA) book.'

(III) Unlike a case-marked *WH-ka*, as in (9a,b), which is unanimously analyzed as an indefinite, a prenominal one cannot be preceded by a numeral, or accompanied by a plural *-tati*, as in (10a',b).

(9)a. *hito-tu-no nani-ka-ga owari-ni tikazui-teiru. (google)*  
*one-CL-GEN WHAT-KA NOM end-DAT approach-PROG* 'One thing is approaching the end.'

b. *tokutee-no dare-ka-tati-e-no message-o... (google)*  
 specific-GEN WHO-KA-PL-DAT-GEN message-ACC 'a message to some particular persons'

(10)a. **nani ka** *hito-tu-no waza-o moti [...]* (google)  
**WHAT KA one-CL-GEN skill-ACC possess [...]** '(if you) possess some one skill ...'

a'. \**hito-tu-no nani ka waza-o moti [...]*  
*one-CL-GEN WHAT KA skill-ACC possess [...]*

b. \***dare ka-tati** *gakusee-o suisensi-ta.*  
**WHO KA-PL student-ACC recommended** 'I recommended some (WHO-KA-PL) students.'

**Reference:** Alonso-Ovalle & Menéndez Benito 2010. Modal indefinites. *Natural Language Semantics* 18; Fukaya 2012. Island Insensitivity in Japanese and Some Implications. In *Sluicing*. Oxford Univ. Press; Giannakidou & Quer 2013. Exhaustive and non-exhaustive variation with free choice and referential vagueness. *Lingua* 126; Kinuhata & Whitman 2011. Genesis of Indefinite Pronouns in Japanese and Korean. *Japanese/Korean Linguistics* 18; Kluck 2011. *Sentence amalgamation*. PhD. Univ. of Groningen; Krifka 2011. Questions. In *Semantics vol. 2*. de Gruyter; Zamparelli 2007. On Single Existential Quantifiers in Italian. In *Existence*. Springer.

## Projection lines and functional domains: evidence from mixed projections

Phoevos Panagiotidis – University of Cyprus

The clausal-nominal parallelism is a popular assumption, one that is often made without much discussion. According to it the clause and the nominal phrase possess an identical architecture, and both are to be divided in corresponding domains (Horrocks and Stavrou 1987; Grimshaw 1991; Grohmann and Haegeman 2003; Wiltschko 2014, chap. 2). There is a number of arguments against the so-called CP-DP parallelism (Payne 1993; Bruening 2009 -- among others) but in this talk I will only present evidence from mixed projections against the version of this parallelism in Wiltschko (2014).

Wiltschko's (2014) *Universal Spine Hypothesis* posits that the architecture of clauses and nominal phrases is fully parallel: four functional domains make up both CP and DP (after Wiltschko 2014, 78):

(1)

	Clause	Nominal Phrase
<i>Linking</i>	CP	KP
<i>Anchoring</i>	IP	DP
<i>Point-of-view</i>	AspP	PhiP (e.g. NumP)
<i>Classification</i>	vP	nP

If CPs and nominal phrases have identical architecture, i.e. if each is divided identically in the four functional domains above, this should show clearly and unambiguously in the case of *Mixed Projections*: within mixed projections, some domains would be verbal/clausal, while some would be nominal. More precisely, Wiltschko's system accordingly predicts that we should have three *particular types* of mixed projections, especially if her system is combined with

- i. Phrasal Coherence, i.e. that the mixed projection “can be partitioned into two categorially uniform subtrees” (Bresnan 1997, 4; Borsley and Kornfilt 2000; after Malouf 2000), and
- ii. Nominal external behaviour: mixed projections externally behave as *nominal* constituents (Panagiotidis 2014, 139; after Malouf 2000; Borsley and Kornfilt 2000)

The table below summarises the expected types of mixed projections:

(2)

	Type 1	Type 2	Type 3
<i>Linking</i>	KP	KP	KP
<i>Anchoring</i>	IP	DP	DP
<i>Point-of-view</i>	AspP	AspP	NumP
<i>Classification</i>	vP	vP	vP

According to Wiltschko (2014, 76–77) *Type 2* above is “gerund nominalization” (*John's eating herring all the time*) and *Type 3* is “nominalization by derivation” (*John's / The*

*eating of herring*). In this talk we will first show that *Type 1* also exists: Spanish nominalized infinitives (Ackema and Neeleman 2004, 178):

- (3) [El cantar yo La Traviata] traerá        malas consecuencias  
The sing.INF I La Traviata bring.FUT    bad    consequences  
'My singing the Traviata will not end well.'

Still, not all mixed projections fit the schema. Two types of evidence from mixed projections will therefore be called upon to demonstrate that

1. The nominal subtree in mixed projections is not complete.
2. Article+CP nominalisations in Polish and Greek are of "Type 0" type and resist fitting into the schema.

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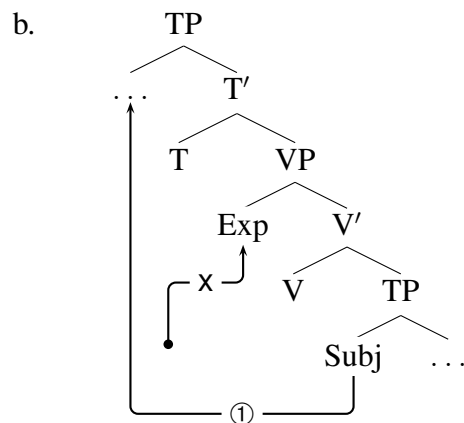
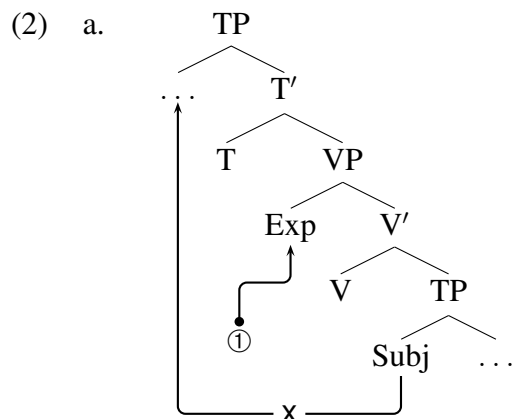
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## Non-monotonic raising-to-subject

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**The puzzle:** Rizzi (1986) observes that subject-raising across an experiencer leads to ungrammaticality in Italian (1-a). If no experiencer is present, subject-raising is fine (1-b). This suggests that the problem in (1-a) is caused by the fact that the experiencer is closer to the attracting T-head than the embedded subject. Attraction of the subject violates the Minimal Link Condition in (3) (Fanselow 1991, Ferguson 1993, Chomsky 1995), see (2-a). Since the experiencer itself cannot satisfy the needs of the T-head (1-c), this is called “defective intervention” by Chomsky (2000). A derivation that first raises the subject and merges the experiencer later violates the Strict Cycle Condition in (3) (Chomsky 1973), see (2-b).

- (1) a. *\*?Gianni sembra a Piero [ t fare il suo dovere ].*  
 Gianni seems to Piero to.do the his duty  
 “Gianni seems to Piero to do his duty.”
- b. Gianni sembra [ t fare il suo dovere ].  
 Gianni seems to.do the his duty  
 “Gianni seems to do his duty.”
- c. *\*A Piero sembra t [ Gianni fare il suo dovere ].*  
 to Piero seems Gianni to.do the his duty



- (3) a. *Minimal Link Condition (MLC):*  
 If in  $\alpha \dots [\dots \beta \dots [\dots \gamma \dots]] \dots$  both  $\beta$  and  $\gamma$  are of the right type to establish a relation R with  $\alpha$ , then  $\alpha$  can establish R only with  $\beta$  (but not with  $\gamma$ ).

- b. *Strict Cycle Condition (SCC):*  
 If  $\Sigma$  is the root of the current phrase marker, then no operation can take place exclusively within  $\Omega$ , where  $\Omega$  is dominated by  $\Sigma$ .

Similar intervention facts are known from French (Chomsky 1995), Icelandic (McGinnis 1998, Holmberg and Hróarsdóttir 2003), Spanish (Torrego 1998), and for Greek, Albanian or Georgian (McGinnis 1998). Crucially, it has been observed that this sharply contrasts with English, where raising across an experiencer is fine (4) (Chomsky 1995, McGinnis 1998).

- (4) John seems to Mary [ t to be happy ].

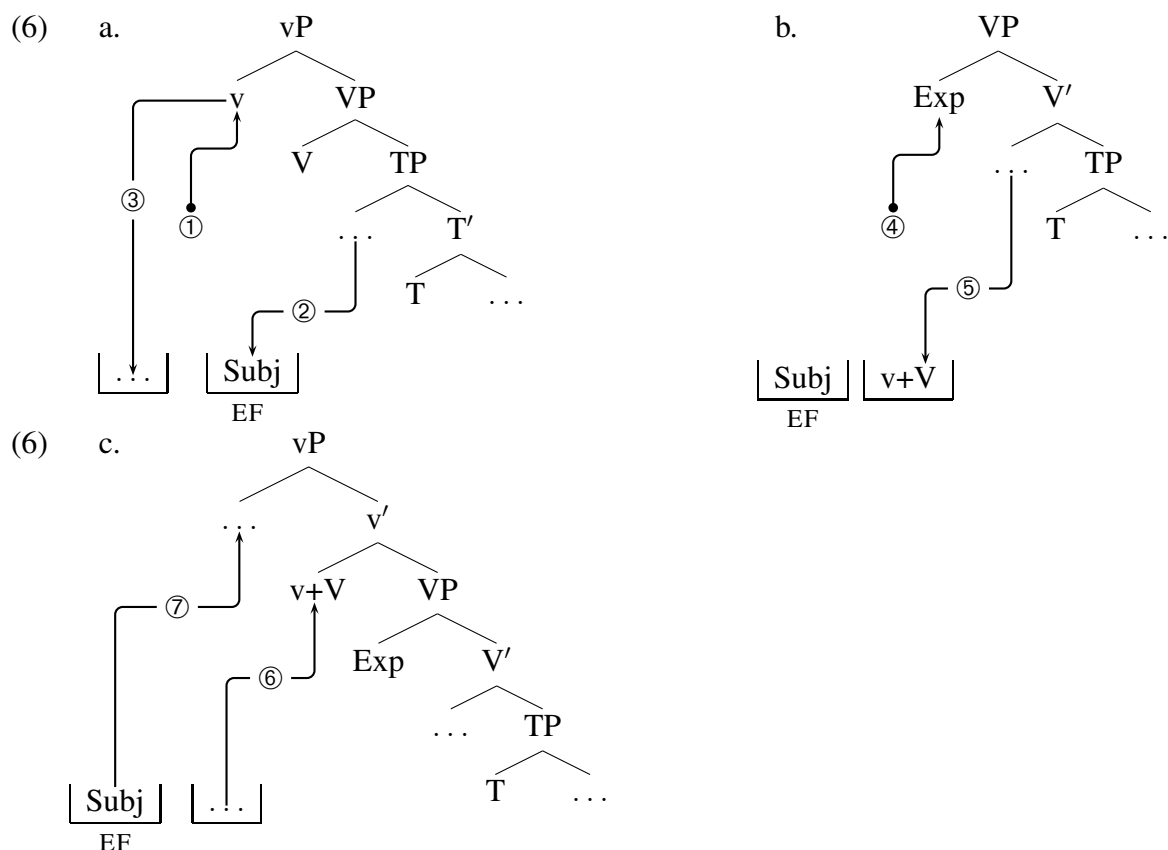
**A previous approach:** The experiencer in English is embedded in a PP while in Icelandic it is not (see Rizzi 1986, Kitahara 1997, McGinnis 1998, Boeckx 1999, 2000). From within PP, the experiencer does not c-command the embedded subject (4) and therefore does not qualify

as an intervener. However, this view faces the complication that the experiencer shows signs of c-commanding into the complement of the raising verb: It can trigger Principle C effects and is able to bind variables (Chomsky 1995, Pesetsky 1995, McGinnis 1998).

**New proposal:** The puzzle can be solved if the objects generated by syntactic derivations need not form sequences of monotonically growing trees. I thus suggest that syntactic trees may shrink temporarily. Material is removed from the tree, stored in a separate workspace (WSP), and then remerged at some later step. I call such derivations “non-monotonic,” and I show that they are restricted to contexts involving head-movement. In my talk, I not only illustrate that this proposal solves the raising puzzle for English (see the derivation in (6-a-c)) but at the same time that it offers an explanation for why raising across anaphors is ungrammatical in languages that cannot make use of non-monotonic derivations (as Italian, see (5-a) vs. (5-b)).

- (5) a. Gianni<sub>i</sub> le<sub>j</sub> sembra t<sub>j</sub> [ t<sub>i</sub> fare il suo dovere ].  
 Gianni her.DAT seems to.do the his duty  
 “Gianni seems to her to do his duty.”
- b. \*Gianni<sub>i</sub> si<sub>i</sub> sembra t<sub>j</sub> [ t<sub>i</sub> fare il suo dovere ].  
 Gianni SELF.DAT seems to.do the his duty  
 “Gianni seems to himself to do his duty.”

**Derivation:** The derivation in (6-a-c) respects both MLC and SCC. Merge of the experiencer is procrastinated. Instead, *v* is merged ①, attracts the subject (respecting the MLC), and stores it in the WSP associated with the attracting edge feature ②. Due to V-to-*v* movement, *v* is removed ③ and the *v*P-projection vanishes. Merge of the experiencer respects the SCC ④. *V* is also removed to the WSP ⑤, forming the *v*+*V* complex there (Bobaljik 1995). In the remaining steps, T+*v*+*V* is remerged ⑥, and the subject is remerged in SpecT ⑦.





## Asymmetries in complex sentence building in sign languages

Josep Quer (ICREA-Universitat Pompeu Fabra)

The syntactic, semantic and prosodic mechanisms at work in the integration of clauses into complex sentences constitutes a rather understudied domain in the field of Sign Linguistics. In this talk I address the open question of the proper characterization of brow raise, a core non-manual domain marker, as a flag of syntactic integration into the matrix by presenting a case study of in Catalan Sign Language (LSC). Like in several other sign languages, brow raise surfaces as domain-marker of conditional antecedents, temporal and reason clauses, relative clauses, pseudo-clefts and clausal arguments appearing in the left periphery of the sentence. In this talk we'll focus on adverbial adjuncts.

The robustness of the LSC data suggests that brow raise (br) is a portmanteau marker of syntactic (and prosodic) integration of a dependent clause into the left periphery of the matrix one, as illustrated in (1). At the same time, whenever the dependent clause can appear after the matrix one (cf. (2)), brow raise occurs only on the alleged complementizer sign (IF/EXAMPLE, BECAUSE/REASON, etc.), clearly pointing to a different syntactic structure.

- \_\_\_\_\_ br
- (1) REASON ALL GO-AWAY+++ , MEETING CANCELLED.  
'Since everyone had gone away, the meeting was cancelled.'
- \_\_\_\_\_ br
- (2) MEETING CANCELLED, REASON ALL GO-AWAY+++ .  
'The meeting was cancelled because everyone had gone away.'

Despite being the overt marker of the syntactic dependency in complex sentences like (1), brow raise can be layered with other non-manuals and be overridden by other grammatical or affective articulations, as long as the prosodic and syntactic constituency is preserved. For cases like (2), I show that they are instances of 'disintegrated' adjunct clauses, very similar to Antomo & Steinbach's (2010) analysis of *weil*-V2 clauses and Gärtner's (2001) analysis of V2-relatives in German. I will explore for LSC the pragmatic contrasts identified for German between the pre- vs. post-matrix clause structures.

For several cases of left-edge adjunct clauses, I further argue that preverbal cases are instances of complex NP constituents (DP+CP) that are recruited (and eventually grammaticalized) for the composition of complex sentences.

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## Co-nominal pointing: toward a formal semantic analysis

Amir Anvari, IJN (ENS / EHESS)

**Introduction.** In this piece, we investigate the inferential effects of co-speech pointing gestures that are temporally aligned with quantificational noun phrases. (1) provides a thumbnail sample of the type of construction we have in mind. In both (1a) and (1b) pointing (glossed ‘IX’ with overlines indicating the timeslot) triggers the inference that the pointing target (or simply, the target) is one of the relevant students being talked about. On top of this, (1a) triggers the inference that the target smokes and (1b) triggers the opposite inference that the target does not smoke.

- (1)
- a.  $\overline{\text{IX}}$  At least one student smokes  $\rightsquigarrow$  The pointing target is one of the students and smokes.
  - b.  $\overline{\text{IX}}$  Not every student smokes  $\rightsquigarrow$  The target is one of the students and does not smoke.

Empirically, pointing gestures have only been studied to the extent that they co-occur with deictic expressions, in which case they are claimed to rigidly fix the denotation of the relevant deictic expression [1, 2]. We expand the empirical domain by taking into consideration the interaction of pointing with quantified expressions. Crucially, while pointing with deictic expressions triggers the same interpretation/inference regardless of syntactic environment (perhaps by fixing the value of a context-dependent variable), pointing with quantified expressions is sensitive to the logical syntax of the modified expression. Thus (2a) and (2b) differ both in their use-conditions and the inferences they trigger: while (2a) is generally acceptable triggering an inference similar to (1b), (2b) is only marginally acceptable and, when acceptable, the inference it triggers seems to have to do with the likelihood of smoking behavior, unlike (1b).

- (2)
- a. The teacher did not see every student  $\overline{\text{IX}}$  smoke.  
 $\rightsquigarrow$  The target is one of the students and was not seen smoking by the teacher.
  - b. The teacher saw every student  $\overline{\text{IX}}$  smoke.  
 $\rightsquigarrow$  (Roughly) The target is the student that is least likely to be seen smoking.

Theoretically, we discuss two fairly conservative hypotheses based on independently motivated principles. We point out problems in each case, propose a novel hypothesis and evaluate it against the empirical facts.

**Two hypotheses considered.** The *domain restriction hypothesis* posits that pointing restricts the domain of the modified quantifier to the set of the individual(s) pointed toward. Thus the generalized quantifier in (3) is predicted to be paraphrasable as ‘not every student pointed to’. This hypothesis predicts that pointing directly manipulates the assertive content of the associated sentence; for example, it incorrectly predicts (3) to be truth-conditionally equivalent with ‘it is not the case that the person pointed to knows that he passed’. The predicted presupposition, therefore, is merely that the target passed the exam, while the construction in fact presupposes that every student (being talked about) passed and triggers the inference that the target in particular does not know whether he passed.

- (3)  $\overline{\text{IX}}$  Not every student knows that he passed the exam.

The *dynamic discourse anaphora hypothesis* takes its lead from recent work in plural anaphora [3–5] and posits that pointing manipulates the discourse referent introduced by the quantifier.

Specifically, this hypothesis predicts the inference that the target belongs to the MAXSET associated with the quantifier which, e.g., in the case of (1a) amounts to the set of students who smoke. Evidence against this account comes from (1b) above as in this case access to the COMPSET (= the set of students who do not smoke) seems to be needed. Evidence that the COMPSET is not available for (1b) in general comes from the fact that ‘not every student, including/namely John, smoke’ is unacceptable.

**Our proposal.** The intuition behind our proposal is that pointing signals that attention can be focused on the pointing target with no loss of information relative to the background assumptions. One way to implement this intuition is that pointing triggers the presupposition that the result of restricting the domain of the quantifier to the the set of individual(s) pointed toward is contextually equivalent with the original sentence with unmodified domain.

For example, note that if the domain of the quantifier in the sentence ‘at least one student smokes’ is restricted to a single individual, say John, the sentence is predicted to be true iff John smokes. (1a) is, therefore, predicted to presuppose that at least one student smokes iff John smokes and assert that at least one student smokes. Similarly, if the domain of the quantifier in the sentence ‘not every student smokes’ is restricted to John, the sentence is predicted to be true iff John does not smoke. (1b) is, therefore, predicted to presuppose that not every student smokes iff John does not smoke and assert that not every student smokes. In each case the predicted presupposition in conjunction with the assertion yields the observed inference. In the paper we work through several other examples in detail.

**Conclusion.** There has been a recent surge of interest in the formal semantics/pragmatics literature in the precise manner in which co-speech gestures enrich the verbally encoded message ([10], [1], [6], [11]). Pointing is a particularly interesting case study in this context as it is also grammaticalized in Sign Language and as a co-speech gesture it generates a rich pattern of inference. We finish the article by a short comparison between pointing in Sign Language and co-speech pointing, and tentatively suggest that co-nominal pointing is categorically distinct from pointing in Sign Language and that in fact our data can be replicated in Sign Language by use of eye-gaze and head tilt instead in place of pointing.

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A less discussed phenomenon in differential object marking (DOM) languages is the obligatoriness of differential morphology in (equality) comparatives of the type illustrated in (1) and (2). Although rather neglected in both formal and descriptive accounts, these constructions are robust across Romance (as well as elsewhere). For some remarks on Spanish see Romero Cambrón (1997), on Romanian - Pană Dindelegan (2003), Cornilescu (2010), etc., and on Sardinian – Floricic (2008), (2015), etc.

(1) Ama los libros/a los niños como *\*(a)* su vida. *Spanish*  
 loves the.PL book.PL/DOM the.PL children as DOM his life  
 LIT. ‘He loves the books/the children as his life’ [*\*ama a su vida*]

(2) L-a aruncat ca *\*(pe)* o minge. *Romanian*  
 CLT.3.ACC.SG.M-has thrown as DOM a.F.SG ball  
 LIT. ‘He has thrown it as a ball’ (as one throws a ball) [*\*/???a aruncat pe o minge*]

The puzzling requirement of DOM even on *inanimates* (which moreover could be interpreted non-specific, as the most prominent reading in 2, etc.) provides further support for recent accounts of DOM as the morphological expression of a syntactic configuration (Leonetti 2008, López 2012, etc.), as opposed to implementations in terms of scales (Aissen 2003, Lambrecht 1994, Bossong 1991, Comrie 1989, Næss 2004, 2006, etc.). The latter normally leave inanimate/non-specific DPs outside of the scope of DOM (3). Adding the ‘comparative’ to the scale would not amount to more than a simple stipulation.

(3) 1/2 > 3 > **proper name** > **human** > **animate** > || inanimate  
**pronoun** > **name** > **definite** > **specific indefinite** > || non-specific

The same type of problem is patent in functionalist approaches where DOM is seen as the reflex of information structure encoding at the VP level, as *topic/givenness* (Darlymple and Nikolaeva 2011, etc.). But assimilating the comparative pivot to the topic cannot explain why some comparatives do not allow DOM on the pivot, as seen in (4) from Romanian (and elsewhere):

(4) Au vopsit uși-le mai urât de-cât pereți-*\*/pe* pereți.  
 have.3.PL painted door.the.PL more ugly.ADV de-how much wall.the.PL/DOM walls  
 LIT. ‘They have painted the doors more ugly(ly) than the walls’ *Romanian*

A more careful investigation also shows that such constructions pose some challenges for current formal theories of DOM, as well as of comparatives, as seen below. They thus provide non-trivial hints into two very important processes in the grammar.

**Phrasal or clausal?** The absence of structures similar to (5) could indicate that DOM comparatives are of the phrasal type; however, a battery of diagnostics (Table 1) signal that they fail most of the relevant phrasal properties. For example, the pivot after *ca/como* must back-track the grammatical role in the matrix – this is unambiguously seen in Romanian where indirect objects are not homophonous with DOM objects (6). Moreover, DOM comparatives show a mixed behaviour under other tests as well.

(5) *\*Ama los libros como ama a su vida. Spanish*  
 loves the.PL book.PL as loves DOM his life

(6) *I-au dăruit cadouri ca unui rege/\*un rege/\*pe un rege. Romanian*  
 CLT.3.DAT.SG.M-have given gifts as a.DAT.SG king/a.NOM//ACC king/DOM a king

	<u>PHRASAL</u> ( <i>Napoli 1983, Hankamer 1973, Bhatt &amp; Takahashi 2008, etc.</i> )	<u>REDUCED CLAUSAL</u> ( <i>Merchant 2009, Lechner 2001, etc.</i> )	<u>SMALL CLAUSE</u> ( <i>Pancheva 2005, etc.</i> )	<u>DOM</u>
Only one pivot	YES	NO	YES	NO
Only DP pivot	YES	NO	YES	NO
Inherent Case	YES	NO	YES	NO
Pied-piping	YES	NO	YES	NO
Reflexive binding from matrix	YES	NO	YES	<b>YES</b>
Negative concord	YES	NO	YES	<b>YES</b>
Adjective head	NO	NO	YES	NO

TABLE 1. DOM VS. OTHER COMPARATIVES

Turning to the clausal construal, a no-starter is also an analysis in terms of *small clauses* (presumably similar to a depictive), along the lines in (7a, b) for (1). The problems are both

empirical, and theoretical. Following Pancheva's (2006) implementation of small clause comparatives, we would need in this case a *predicative partitive/similitive*, which is of type <dt, dt>, and hence requires a complement of type <dt>. But this would be two-fold problematic; first, DOM is systematically excluded on arguments of adjectives and participials in copular structures even with animates (8); second, the vast literature on the topic agrees that differential objects cannot be of type <et>; they are instead of type <e> (Farkas 1978, Dobrovie-Sorin 1994, 1997, Dobrovie Sorin et al. 2006, Dobrovie-Sorin and Cornilescu 2007, López 2012, Mardale 2010, de Hoop 1996, de Swart and de Hoop 2008, etc.). What is needed thus is *strong partitivity* (partitivity used as a cover class here; equatives don't probably use partitivity in this strict sense), as opposed to *weak partitivity*, as predicted by the small clause account.

(7) a. *as* [<sub>sc</sub> life Δ]; b. LF: [<sub>IP</sub> he d<sub>1</sub>-loves life] [<sub>DEGP</sub> - *equality*<sub>1</sub> [<sub>PP</sub> *as* [<sub>sc</sub> life d-loved]]]]

(8) \**Pe* Ion este iubit. (DOM John is loved) Romanian

Examining the structures in more detail, it turns out that *clausal* correspondents are indeed possible for (1) and (2), but the latter are more complex in that they must involve an *overt wh*-operator. This is seen in Romanian in (9). Crucially, once the *wh*-operator is made overt, the differential marker on the inanimate object is not well-formed anymore. This is exactly what is also seen in (4); *decât* 'than' contains the partitive *de* and the *wh-cât* 'how much/many', and again DOM becomes ungrammatical with inanimates. Thus the generalization that emerges (for Romanian, at least) is: *DOM is obligatory when the wh-operator is covert*. In Spanish, DOM appears to be used with the marker *que*; however, there is a debate about whether *que* is the actual *wh*-operator (see Ortega Santos 2013 for discussion).

(9) L-a aruncat ca și *cum* se aruncă (\**pe*) o minge. Romanian

CLT.3.ACC.SG.M-has thrown as and how<sub>wh</sub> SE<sub>GEN</sub> ball DOM a ball

LIT. 'He has thrown it as if/like one throws a ball'

This generalization can be formalized through a classical analysis of comparatives where the *wh*-operator in Spec, CP binds a degree variable in the gradable predicate (Heim 2000, etc.). Assuming further that we are dealing with *wh*-clauses as free relatives of degrees which are interpreted as definite descriptions (Partee 1987, Jacobson 1995, etc.), we are left with the representation in (10) for (1).

(10) *as* [<sub>CP</sub> wh<sub>1</sub> d<sub>1</sub>-love life] → LF: *as* [<sub>CP</sub> t<sub>d</sub> d<sub>1</sub>-love life]

We further assume that, as the relative must be 'typed' (with a degree interpretation, as opposed to non-degree in this case), if the *wh*-is marked as 'not pronounceable', the degree component 'activates' a telicity/delimitation feature which must be overtly checked (Tenny 1994, Kratzer 1996, etc.). Following Pesetsky and Torrego (2004) this can be seen as a [<sub>uCase</sub>] feature (strong Case in de Hoop's 1996 terms). This forces the overt raising of the object to a position above V, resulting in obligatory differential marking (López 2012). Therefore, the comparative in (2) would have the structure in (11):

(11) *as* [<sub>CP</sub> wh<sub>1</sub> d<sub>1</sub>-throw ball] → LF: *as* [<sub>CP</sub> t<sub>d</sub> d<sub>1</sub>-throw [<sub>uCase</sub>] ball [<sub>iCase</sub>]]

Thus, we obtain the correct result that differential objects must be above V. However, a further question arises. Which position above V do they use? López (2012) assumes that a *Short scrambling* operation which moves the object to an intermediate position above V but *v* is what characterizes DOM.

(12) López (2012) – [<sub>VP</sub> EA *v* [<sub>αP</sub> DOM α [<sub>VP</sub> V <DO>]]]

Romanian, on the other hand shows that such objects are higher. This can be easily seen in the equality comparative structures in (13), where the DMO appears to c-command the EA:

(13) I-au lăudat pe studenți ca părinții lor<sub>i</sub> pe copiii<sub>i</sub> de la grădiniță.

CLT. -have praised DOM students as parents.the their DOM children.the from kindergarten

'They have praised the students as their<sub>i</sub> own parents have praised the children<sub>i</sub> from ...'

In conclusion, the (reduced) clausal implementation as a definite description of degrees gives more accurate results for comparatives with DOM than the phrasal account. But (at least) two questions still need an answer: i) what about the generic readings (as in 2, see also Heim 1985, Rappaport 1983, etc.); ii) what about the phrasal diagnostics? As for (i), we would like to propose that we can see here a high Generic operator, probably merged in a modal projection (and thus IP ellipsis is what is at stake, see also Nicolae 2010). As SE is not possible with DOM in Romanian, we can further hypothesize that the covert *wh*- structure does not probably contain the generic SE (which is lower, see Dobrovie-Sorin 1998, etc.). (ii) indicates that these clausal structures are of the transparent type (similar to subjunctives).

## TAKING MEASURES IN SPACE

Our twin goals in this paper are to provide a compositional analysis of prepositional measures as in (1) and to advance a general hypothesis on the nature of measures (degrees) that would root them in the more familiar ontology of entities and spaces.

- (1) a. Don't touch the steering wheel if you have drunk **over five glasses of wine**.  
b. I ate **around a pound of jam**.  
c. She just got married for **under a hundred dollars**.  
d. The distance was somewhere **between a kilometer and a mile**.

**Syntax:** As the compatibility of spatial prepositions with indefinite measures (1b,d) shows, it is impossible to assume, as Corver and Zwarts 2006 did, that the preposition combines with the cardinal before merging with the rest of the pseudo-partitive. We assume with Klooster 1972, Selkirk 1977, Lehrer 1986, Vos 1999, Grimshaw 2007, Landman 2015, etc. (and contra Gawron 2002, Rothstein 2009a, b, 2011a, b, etc.), that the measure noun is the head of the pseudo-partitive (evidence for this will be provided from agreement and case-marking, but the issue of composing a pseudo-partitive with a spatial preposition arises for all approaches).

**Semantics:** It seems obvious that the compositional semantics of prepositional measures does not involve locating an entity in normal space (as in the slightly aberrant interpretation of (1b), where not jam is eaten, but something around it). The question therefore arises if it is the interpretation of the spatial prepositions that should change or that of the pseudo-partitive.

**Proposal:** We suggest a novel approach to measure nouns such as *pound* or *kilometer*, which allows the spatial prepositions in (1) to perform the same locating function that they usually perform (e.g., *over/around/under the table*). Specifically, we propose to treat measure nouns as **abstract containers**. This is conceptually driven by the role that the notion of a container plays in the cognitive foundation of our mathematical faculty (Lakoff and Núñez 2000), underlying our reasoning with sets and quantities, and empirically motivated by the centrality of container nouns (like *glass*) in the pseudo-partitive construction and by the simultaneous availability of container and content interpretations there (Selkirk 1977, Landman 2004, Grimshaw 2007, Rothstein 2009a, Partee and Borschev 2012, Duek and Brasoveanu 2015, etc.), as well as by the historical development of many measure terms out of container nouns (e.g., *cup, barrel*). We propose therefore that, like the interpretation of the NP *a glass of wine* involves a concrete container (glass) filled to a sufficient level with a substance (wine), the interpretation of *a pound of jam* involves an abstract container, corresponding to the pound unit, filled with jam substance. Just as glasses may be empty, so can pounds, yielding the intransitive use of measure nouns, as in *The engine weighs three hundred pounds*.

**Abstract containers:** While a glass is a three-dimensional container with a material enclosure of an interior, we propose that measure nouns denote one-dimensional containers located in a vertically oriented half-open one-dimensional space; the relative magnitude of the measure (*ounce* vs. *pound*) with respect to the relevant dimension (weight) is reflected by the height of the container. One immediate consequence of this approach is that the algebra of measures directly follows from the independently motivated properties of one-dimensional space. Indeed, in a one-dimensional space with a natural zero (ground), there are only two ways of relating abstract containers, as long as levitation is disallowed: **superposition** (the bottom of both containers is at zero) and **stacking** (the bottom of one container is on top of the other). Superposition gives us the indistinguishability of two instances of the same measure with respect to each other: there is no space to separate them and thus to distinguish. Conversely, stacking, i.e., the placement of two containers one on top of the other, gives us the operation of **concatenation**, naturally deriving addition for two distinct measures (e.g., *one pound one ounce*) and multiplication (*two pounds*) for two identical ones.

**Spatial prepositions:** Assuming that measure nouns denote one-dimensional containers located in one-dimensional space also permits prepositions to function in the usual way. We predict that any preposition that can describe a vertical relation between entities in real space would also work on a measure conceived in this way. This prediction seems to be correct:

while vertical prepositions like *above*, *below*, *under*, and *over*, and neutral prepositions like *around*, *about* and *between* are allowed, those that are restricted to the horizontal plane (*behind*, *beside*, *in front of*, *next to*, *left*, *right*) are not. The topological prepositions (*in*, *on*, *at*) are not expected, as they operate in three dimensions, while directional prepositions (*from*, *to*), which do not, are in fact attested (see also Nouwen 2008).

**Formalization:** To capture this, we will treat abstract containers as upward-pointing spatial vectors. The desired properties follow immediately, as two vectors are distinguished by their direction and length, but not the point of origin. Concatenation in this framework naturally corresponds to vector addition (**pound+ounce**), deriving scalar multiplication (=2**pound**) compositionally if the partition-based semantics of cardinals by Ionin and Matushansky 2006 (rather than the more common cardinality-based approaches) is assumed. As a further result, this gives us a scale (of weights, for *pound*), drawing on the underlying ontology of space.

Following now and somewhat simplifying Zwartz and Winter 2000, suppose that the relevant prepositions are defined as relations between vectors  $u$  and  $v$  (representing positions in one and the same space), where a vector  $w$  of a particular direction (**up**, **down**) or length (**short**) is added to vector  $u$  to give us vector  $v$ :

- (2) a.  $[[\text{over}]] = \lambda u. \lambda v. \exists w [ v = u + w \ \& \ \mathbf{up}(w) ]$   
 b.  $[[\text{around}]] = \lambda u. \lambda v. \exists w [ v = u + w \ \& \ \mathbf{short}(w) ]$   
 c.  $[[\text{under}]] = \lambda u. \lambda v. \exists w [ v = u + w \ \& \ \mathbf{down}(w) ]$   
 d.  $[[\text{between}]] = \lambda u_1 u_2. \lambda v. \exists w [ v = u_1 + w \ \& \ w \text{ points in the direction of } u_2 ]$

**Concrete containers:** Turning now to regular containers, such as *glass*, we observe that they can also combine with spatial prepositions (1a), but only if viewed as having more or less the same (not necessarily standard) measure (cf. Partee and Borschev 2012). As nothing prevents the re-conceptualization of concrete containers as abstract ones, we hypothesize that a two-way mapping between the two domains is available, permitting incidentally also the mapping of less standard containers, such as *a bag of books*; the English suffix *-ful* may be taken as an overt reflex of this mapping. An illustration of this mapping in the opposite direction, from standard measure nouns to containers of the relevant capacity, is given by Dutch (3), with the concrete container reading making available the plural marking on *liter* in (3b), which is otherwise impossible on standard measure nouns inside numeral NPs (Klooster 1972).

- (3) a. drie liter water  
 three liter water  
*three liters of water*  
 b. drie liter-s water  
 three liter-PL water  
*three liter-packs of water*

**What space is made of:** The representation of measures as abstract containers has one more welcome property: the only way a one-dimensional container can be filled with a substance is if the entire one-dimensional space is made of that substance. As a result, the denotation of *a pound of jam* in this framework is simultaneously a pound and jam, by virtue of the system itself, yielding the simultaneous accessibility of both denotations. Better still, the same is true for *a glass of wine* without the need to postulate two different structures (Rothstein 2009a, b, 2011a, b, a.o.) or a dot-object (Duek and Brasoveanu 2015). It furthermore follows that the prepositional measure in (1a) denotes wine, to the absence of the additional interpretation of 'wine and something else', available for *more than five glasses of wine* (see Matushansky and Ionin 2014).

**Additional points:** We will argue that measure phrases in APs (e.g., *around two miles long*) are also represented as one-dimensional containers, providing evidence from the fact that measure phrases are allowed primarily with temporal and unidimensional spatial adjectives (Murphy 1997); others are much rarer. The question therefore arises of whether it is desirable to recast standard approaches to scalarity in spatial terms, thereby eliminating degrees from the ontology. We will finally discuss the application of the framework to numerals.

## Revising beliefs: subtleties in the semantics of sentence final *le* in Mandarin

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In this paper, we propose to revise Soh's (2009) analysis of sentence final *le* (henceforth LE) in Mandarin Chinese. While we consider it intuitively correct, we will show it need to be amended.

**Two common grounds: Soh's proposal** Making use of notions from Stalnaker (1998, 2002), Soh proposes the semantic characterisation of LE presented in (1).

(1) The speaker using a sentence with LE (i) asserts a proposition *p* at speech time, (ii) presupposes [ $\neg p$  before speech time], and (iii) either accepts or rejects the inclusion of the presupposition in the subsequent common ground.

Soh's analysis in (1) does not make room for views of more than one epistemic agent and does not say how the two common grounds she evokes are related. This causes at least three problems. First, Soh claims that (2) has a reading according to which *they hadn't reached the top of the mountain before*.

(2) Tamen ganggang daoda shan-ding le.  
they just reach-ASP mountain-top LE  
'The just reached the top of the mountain (, which they hadn't done before).'

By point (1 ii), Soh suggests that the negation of the proposition *p* [They just reached the top of the mountain] is [They have not reached the top of the mountain]. This shows that she neglects the temporal information *ganggang* 'just' contained in the proposition when she negates it. In other words, what Soh ends up negating is the existence of the event of *reaching the top of the mountain* at all time intervals before speech time, not the existence of the event at a relevant time interval, which is reminiscent of a problem already pointed out by Partee (1973, 1984). Her proposal is problematic, because (2) can be continued by (3). Therefore, it is not true that the event must have never occurred before speech time.

(3) Tamen qu nian ye daoda-le tongyang de shan-ding.  
they last year also reach-ASP same of mountain-top  
'They reached the same top of the mountain last year.'

Second, Soh argues that LE in (2) indicates that the speaker believes that the proposition ( $\neg p$ ) that [They have not reached the top of the mountain] is part of the common ground before speech time. According to her, 'common ground' refers to 'what is accepted among the participants in the conversation'. But it is not always the case that the hearer also accepts  $\neg p$ , since he can reply to the speaker by (4). This shows that  $\neg p$  is not part of the common ground, but rather is part of what the speaker believes about the epistemic state of the hearer. In other words, the speaker believes that the hearer believes  $\neg p$ . Therefore, it is the information state of the speaker about the world and about other epistemic agents rather than the common ground shared by the conversation participants that is relevant for defining the semantics of LE.

(4) Zai ni shuo zhiqian, wo yijing zhidao-le.  
at you say before I already know-ASP  
'I knew that before you said it.'

Third, it is not always true that the speaker believes that the hearer believes  $\neg p$ , cf. (1 ii). It is also possible that the speaker admits that the hearer believes *p*, e.g. (5). In this case, by using LE, the speaker signals that in her view the addressee underestimates the relevance of proposition *p* with respect to what is the case.

(5) Tamen ganggang daoda shan-ding le. Ni yijing zhidao-le ba.  
They just reach mountain-top LE you already know-ASP PTCL  
'They just reached the top of the mountain. You already knew that. Am I right?'



**One epistemic state** First, our account of the semantics of LE is provided in (6).

(6) (i) Speaker A asserts proposition  $p$  at speech time  $t_s$ . (ii) By using LE, A signals that accepting  $p$  either has required her to revise her epistemic state relatively to her own beliefs prior to  $t_s$ ; Or, considering the beliefs A ascribes to B at  $t_s$ , it would require hearer B to revise his epistemic state. In either case, revision is defined with respect to A's epistemic state. (iii) Revision amounts to adding  $\neg p$  relatively to a time prior to  $t_s$ , and the 'contrary to expectation' reading arises; Or adding that  $p$  was associated with a degree of relevance lower than required.

In the second case of (6 iii), the contrasted expectation concerns the qualification of  $p$ , not its truth. The discursive effect triggered is that the speaker emphasizes the importance of the information conveyed by the proposition  $p$ , which could serve as the argument for what she is going to say in the following conversation. Thus, A's use of LE may be taken to invite B to revise his own epistemic state in line with A's modelling of the situation.

Second, we propose that reference time in sentences containing LE must be a temporal point rather than an interval. Evidence comes from the contrast between (7a) and (7b).

- (7) a. ?**Zuotian xiawu**, Zhangsan he Mali yijing taolun-le zhe ge wenti le.  
yesterday afternoon Zhangsan and Mary already discuss-PFV DEM CLF question LE  
Intended meaning: 'Yesterday afternoon, Zhangsan and Mary already discussed this question.'  
b. **Zuotian Lisi hui jia de shihou**, Zhangsan he Mali yijing taolun-le zhe ge wenti le.  
yesterday Lisi come home DE moment Zhangsan and Mary already discuss-PFV DEM CLF question LE  
'When Lisi came back home yesterday, Zhangsan and Mary had already discussed this question.'

The fact that LE requires a temporal point as reference time has led many linguists to analyse LE as a perfect marker. However, this cannot be correct since LE does not always trigger a "change of state" reading, cf. (8).

- (8) Zhe ge mugua hen tian le. (Li *et al.*, 1982)  
DEM CLF papaya very sweet LE  
'This papaya is very sweet (contrary to expectation).'

Third, we are going to argue that the so-called "change of state" reading triggered by LE arises only from stative predicates, and is a subcase of the "contrary to expectation" reading, where the source of information is qualified as stronger, contra Soh who claims that they are two independent interpretations. Consider (9).

- (9) Ta xiang baba le. (Soh, 2009)  
he resemble father LE

Change of state reading: 'He looks like his father. (He didn't look like his father before).'

Contrary to expectation reading: 'He looks like his father. (Contrary to the speaker's expectation).'

The "change of state" reading implies a "contrary to expectation" meaning. In both cases the speaker believed [he does not resemble his father] ( $\neg p$ ) before  $t_s$ , and there is a change from  $\neg p$  to [he resembles his father] ( $p$ ) in the information state of the epistemic agent, which is the "contrary to expectation" effect. The difference concerns how  $\neg p$  had entered the epistemic state of the agent, hence it has to do with evidentiality. The "change of state" reading is a case of revision of information that was based on a form of direct perception. Agent had seen the boy and knew he did not resemble his father at a moment in the past. Thus,  $\neg p$  followed from her personal assessment of the situation in  $w_0$  before  $t_s$ . The "contrary to expectation" is a sort of weaker case of revision that is imputed to a form of misrepresentation due to wrong indirect input. The agent had come to accept  $\neg p$  in  $w_0$  before  $t_s$  based on indirect evidence, such as guessing about the boy or somebody telling her about him, and such information was wrong or no longer valid.

**Selected references:** Soh H.L. 2009, Speaker presupposition and Mandarin Chinese sentence-final-*le*, *NLLT* 27 \* Li C. N., Thompson S. A. and Thompson R. M. 1982, The discourse motivation for the perfect aspect: The Mandarin particle *le*. *Tense-Aspect: Between Semantics & Pragmatics* \* Stalnaker R. 2002, Common ground, *L&P* 25

## On the interpretation of bare indefinites in Russian

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1. It is generally assumed in the literature that bare nominals (BNs) in Russian can get both a definite and an indefinite interpretation (although see Dayal 2004 for a different view). This observation is empirically supported by the data, but what is also known is that indefinite nominals do not freely appear in all syntactic positions. In particular, indefinite BN subjects in Russian are rarely found in preverbal subject position in declarative sentences, where they are interpreted as sentential topics. They appear much more naturally in postverbal subject position. The constraint is illustrated in (1), where (1a) provides the context for (1b) and (1c):

- (1) a. V komnate bylo neskol'ko malen'kix detej.  
in room were several small children.  
'There were several small children in the room.'
- b. Devočka podnjala ruku i sprosila...  
girl.NOM. raised hand and asked...  
'The/#A girl raised her hand and asked...'
- c. Ko mne podošla devočka i sprosila...  
to me walked.up girl.NOM. and asked...  
'The/A girl came up to me and and asked...'

Geist (2010) argues that the constraint on BSG indefinites illustrated in (1) is due to the fact that these nominals cannot have a specific reference. Following Reinhart (1981), she assumes that only strongly referential (specific) indefinites can function as topics, and since singular BNs cannot be specific, they do not appear as topics (where topic is understood as an information structure notion, independent of any possible syntactic, morphological or intonational marking).

2. I follow the assumption that a specific interpretation is associated with a wide scope reading of indefinites (cf. Fodor & Sag 1982). I will first present evidence that bare singular indefinites in Russian can be associated with a specific interpretation. For this, we will need to look at BSG nominals in object position, as in (2) and (3):

- (2) Vasja xočet zhenit'sja na kinozvezde.  
Vasja wants marry to movie-star  
'Vasja wants to marry a movie star.'
- (3) Vasja segodnja ne sdal ekzamen.  
Vasja today not passed exam  
'Vasja did not pass an exam today.'

In both sentences, a BSG in object position exhibits regular scope ambiguities. What matters for the argument developed here is the availability of a specific, or wide scope reading, which can be made prominent by continuing (2) with a sentence like "*It's a sister of John*" and (3) with a sentence "*It was chemistry*".

Despite the fact that a specific (i.e., a wide scope) interpretation is available for the object BSGs in both (2) and (3), the (informally) consulted native speakers clearly have a preference for a non-specific (i.e., a narrow scope) interpretation for most other BSG objects. Thus, in (4) a specific interpretation of 'book' is very difficult (for some speakers even impossible) to obtain:

- (4) Vasja xočet kupit knigu.  
Vasja want buy book  
'Vasja wants to buy a book.'

Even though the precise factors that favor or disfavor a particular indefinite interpretation still need to be established, it is clear that the availability of a specific interpretation for a bare

singular nominal is a matter of (sometimes strong) preference, and I will propose an explanation for it below. Crucially, we cannot adopt Geist's (2010) proposal which attributes the absence of a specific reading to the bare form itself: if it was the case, we would not be able to get a specific reading in (2) or (3) at all. However, this reading is available, although dispreferred for some speakers.

3. In this talk I will argue that there are two factors that play a role in the distribution and interpretation of BSG indefinites in Russian. One factor is information structure and its role has already been established in, for instance, Geist 2010. I adopt Geist's generalization that indefinite BSGs cannot appear in topic position, although I do not think that her explanation based on the absence of a specific interpretation of BSGs is correct, as examples in (2) and (3) illustrate. Another factor, which (to my knowledge) has not been proposed before is a preference to mark a specific interpretation in accordance with Grice's Maxim of Quantity: specificity in Russian is a functional nominal category that can be marked (cf. Ionin 2013, Yanovich 2005, Geist 2008), hence it should be marked whenever possible. But since specificity markers are not grammatically obligatory (hence crucially different from 'proper' articles), their presence can only be forced pragmatically, leaving room for variation in their use among the native speakers. Below I elaborate on the proposed explanation.

4. As is well-known, Russian does not have an article system, but it has various means of indicating a referential status of a nominal expressions (cf. Padučeva's 1985 actualizers, various specificity markers as described in Ionin 2013, Geist 2008, etc.). Even though a specific interpretation of a BSG object is available in (2) and (3), it is almost always 'pushed away' by a non-specific (narrow scope) one in many other cases, as illustrated by (4). However, a specific interpretation of the object in (4) becomes prominent if a specificity marker *odin* (cf. Ionin) is added to the object, as illustrated in (5):

(5) Vasja xočet kupit odnu knigu.  
Vasja want buy one book  
'Vasja wants to buy one/a certain book.'

Thus, descriptively, we seem to observe that there is a preference to use specificity markers for specific indefinites whenever you can. This preference becomes especially strong for preverbal subject position, where only specific indefinites can appear. Grice's Maxim of Quantity offers an independent explanation for this phenomenon, stating that every contribution should be made as informative as is required. Thus, in relation to specific indefinites, the principle is interpreted as, roughly, 'mark whenever you can', and it is not an obligatory type of grammatical marking.

To sum up, BSGs in preverbal subject position can be interpreted as definite or specific indefinite. The first type of interpretation is highly preferred by the information structure: topics tend to be definite. For the second type, the maxim of quantity enforces specificity marking. BSGs that appear as either postverbal subjects or objects are not topics, so the information structure does not enforce any interpretational preferences for BSGs found in these position. However, the maxim of quantity still encourages speakers to mark the only interpretation that can be overtly marked in Russian, namely, the one of a specific indefinite. Thus, I argue that the restrictions on the interpretation of BSG indefinites in Russian can only be formulated in terms of 'preference', not in terms of the presence/absence of a certain type of interpretation in a certain (in this case a bare) form. The empirical data that I have provided support this type of approach in contrast to a more radical approach by Geist (2010).

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## Negative Concord in Gallo

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The goal of this study is to contribute to the literature on Negative Concord (NC) and semi-negations (or *n*-words) in Romance languages by exploring Gallo, an endangered Regional language of the Oïl family, spoken in Eastern Brittany. Building on existing data and new data collection<sup>1</sup>, we argue that: (i) sentential negation *pâs/pouin* in Gallo participates in NC because it is itself a semi-negation; (ii) the great variability in the behavior of semi-negations in Romance languages follows from a scale akin to the one developed for Negative Polarity Items (NPI), based on semantic properties such as anti-additivity and anti-morphicity (Swarts (1993)).

### 1. Gallo versus Standard European French (SF)

The major striking difference between negation in SF and in Gallo is related to the co-occurrence of the sentential negation with semi-negations<sup>2</sup>, as it gives rise to a Double Negation (DN) reading in SF, and an NC reading in Gallo, as the following contrast illustrates:

- (1) *Tu (n')as pas vu personne.* (SF)  
You NEG.CL-have NEG seen n-body  
DN reading: “it’s not the case that you saw nobody” = “you saw someone”
- (2) *J’ae pâs/pouin veuz persone.* (Gallo)  
I-have NEG seen n-body  
NC reading: “I didn’t see anybody.”

### 2. Negative Concord, and sentential negation *pâs/pouin* as a semi-negation

Most accounts of NC can be divided as to whether semi-negations carry negation or not. On one side, some scholars argue that they are inherently negative. In such view, NC readings follow from resumptive quantification, whereby two negative quantifiers can be resumed to one polyadic object quantifying over pairs (de Swart & Sag (2002), Déprez (2003)). The example below gives a sketch of the process, in which the polyadic quantifier contributes one negation:

- (3) *Personne (n')a rien dit.*  
n-body NEG.CL-has n-thing said  
Polyadic reading:  $\text{NO}_{x,y} \langle x \text{ human}, y \text{ thing} \rangle \text{ said } (x,y) \rightarrow$  “nobody said anything.”

In the case of NC with *pâs* in Gallo (cf. (2)), the only option would be to argue that resumptive quantification is also possible, and that sentential negation would be quantificational as well. But we are still left with the problem of accounting for the fact that it is not an option for SF.

On the other side, some others claim that semi-negations are not inherently negative. In such case, NC results either from semi-negations being analyzed as NPIs (Laka (1990)), or from a case of syntactic agreement in which semantic negation [iNEG] comes from an (abstract) operator licensing dependent elements bearing [uNEG] (Zeijlstra (2004)). The following illustrates the latter, in which semi-negations bear a [uNEG] feature that has to be checked:

- (4) *Op<sub>¬[iNEG]</sub> Personne<sub>[uNEG]</sub> (n')a rien<sub>[uNEG]</sub> dit.*  
NC reading: “nobody said anything.”

As already noticed in the literature, both analyses are problematic. Treating semi-negations as NPIs suggests a very productive use of such items in other negative polarity contexts, which is not the case in Gallo (see (5) below). It also raises the question as to how negation pops up in fragmentary answers. The other approach based on syntactic agreement is also problematic as

<sup>1</sup> This research is supported by the ANR project SyMiLa n°ANR-12-CORP-0014 (*MicroSyntactic Variation in Romance languages*) and the EU project ATHEME n° SSH.20 13.5.2-1 (*Advancing The Multilingual Experience*).

<sup>2</sup> All the negative indefinites exposed here qualify as semi-negations, as they (i) are legitimate in fragmentary answers and (ii) participate in NC readings (following Laka (1990)’s definition).

it predicts that sentential negation *pas* in SF, bearing semantic negation ([iNEG]), should license semi-negations ([uNEG]) to get an NC reading, contrary to fact (cf (1) repeated in (6)):

- (5) \**Eyt-i venu persone?* (Gallo)  
 is-it come n-body  
 “Did anyone come?”
- (6) *Tu (n’)as pas<sub>[iNEG]</sub> vu personne<sub>[uNEG]</sub>.* (French, DN reading only)

To account for the contrast between SF and Gallo, we thus propose another approach inspired by Muller (1991, 2010), who claims that a semi-negation is basically formed of a “floating” NEG and an indefinite. In other words, it is inherently negative, but the NEG feature can be dissociated from the (stranded) indefinite, which we reanalyze as an NPI. As sketched below, an NC reading follows if two “floating” NEGs end up having the same scope, and the more embedded one can be reanalyzed as resumptive:

- (7) [NEG Scope NEG<sub>floating</sub> + NPI<sub>Indef</sub> ... NEG<sub>floating</sub> + NPI<sub>Indef</sub> ]

NC reading of (3) is then expected, as *personne* and *rien* are semi-negations, and can dissociate their NEG feature. DN reading with sentential negation *pas* in SF (cf (1)) also follows as *pas* is not a semi-negation (its NEG feature cannot be dissociated). At this point, the fact that *pâs/pouin* in Gallo does participate in NC suggests that it is a semi-negation. Very interestingly, Muller (1991) defines another diagnostic for semi-negation, the ability to occur in *without*-clauses (a very restrictive context for negative polarity). And *pâs/pouin* in Gallo, contrary to *pas* in French, can indeed occur in such context:

- (8) *Qhi q’arae pû m’fere ene esplique [...] sans pa ecandae?* (Gallo)  
 who that-have could me-do an explanation without NEG spread-the-news  
 “Who could have provided an explanation to me without spreading the news?”

Homer (2013) makes a similar observation about Haitian Creole (HC), whose sentential negation participates in NC, but resorts to an agreement account with an abstract NEG operator. We depart from his account in claiming that semi-negations are indeed inherently negative.

### 3. Strict versus non-strict NC languages: towards a scale of semi-negation

Existing data from Gallo suggest that it is a non-strict NC language, as we found no example of sentential negation *pâs/pouin* with preverbal semi-negations. It thus seems to differ from strict NC languages such as HC, for which sentential negation always occur. Building on the fact that all negative words from these varieties originate from minimizers (Herburger (2001)) and may be at different stages of evolution, we argue that microparametric variation in NC across languages may lie in the contexts in which semi-negations can still dissociate their NEG feature from the (NPI) indefinite. Building on Swarts (1993), we claim that *pas* in SF is no longer a semi-negation (cannot participate in NC), *pâs/pouin* in Gallo requires an anti-morphic context such as *without*-clauses to license NEG “floating”, and *pa* in HC only requires an anti-additive context such as the scope of a semi-negation in subject position: the upper semi-negation provides a “floating” NEG and a context in which further semi-negation may concord.

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## A morphosyntactic analysis of German *außer* “except”

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**Background:** In the literature, the German word *außer* “except” has been labelled as preposition, subjunction, conjunction (Duden 2009, Eisenberg 2006, Helbig and Buscha 1996), as particle (Abraham 1979), or as non-classifiable and, therefore, as a syntactic loner (Pasch et al. 2003).

*außer* “except” can show up with NPs in all four cases of German, in the dative case (1-a) as well as in accusative (1-b), genitive (1-c) or nominative (1-d) case.

- (1) a. Alle gehen ins Kino *außer* ihm  
all go to.the cinema except him.dat  
b. Wir haben alle getroffen *außer* ihren Freund.  
we have all met except her.acc friend.acc  
c. Er wurde aller Verbrechen überführt *außer* des Mordes an seiner Frau.  
he was all crimes convicted except the.gen murder.gen at his wife  
d. Alle gehen ins Kino *außer* ich.  
all go to.the cinema except I.nom

Moreover, *außer* appears not only with NPs as in (1) but also with other categories like PPs (2-a) and CPs: with verb second (V2) (2-b), with finite V-final (2-c), with infinite V-final (2-d).

- (2) a. Wo kann ich bleiben *außer* [PP bei dir? ]  
where may I stay except with you  
b. Es gibt nichts Gutes *außer* [CP/V2 man tut es ].  
there is nothing good except one does it  
c. Er spricht nie *außer* [CP/V-final.finite wenn er gefragt wird.]  
He talks never except when he asked is  
d. Sie ist kaum zu Hause *außer* [CP/V-final.inf um zu schlafen].  
she is barely at home except to sleep

In my talk, I argue that, despite superficial appearance, the categorial identity of *außer* is actually not as heterogeneous as it seems to be.

**Proposal:** Instead of assuming that *außer* is four times categorially ambiguous, I propose that an analysis is possible where *außer* is ambiguous between a preposition and a conjunction. An analysis of (1-a) with *außer* = P is unproblematic since Ps in German often assign dative case. Constructions where *außer* is followed by an NP bearing another case, a PP, or a clause, must then receive another analysis. I propose that in all these constructions *außer* is a conjunction. In some cases, *außer* overtly conjoins clause-like elements, see (2-b,c,d). Moreover, there is evidence that *außer* also combines clause-like conjuncts in (1-b,c,d) and (2-a). While the nominative case in (1-d) may be analysed as default case in German, accusative and genitive case in (1-b,c), respectively, suggest that there is a hidden case assigner that has been deleted: a verb. Thus, the analysis is based on the assumption that the conjuncts of *außer* are underlyingly clausal. This suggests an approach in terms of ellipsis. Independent evidence for an approach in terms of clausal conjunction comes from sentence adverbials. Sentence adverbials in German such as *vermutlich* “presumably”, *wahrscheinlich* “probably” and the like suggest the presence of a speech act. Standardly, speech acts are assumed to be syntactically associated with CPs, see, e.g., Ross (1970). If so, then the conjuncts of *außer* in (3) should be clausal.

- (3) Alle gehen ins Kino *außer* [<sub>CP</sub> (wahrscheinlich) ich (wahrscheinlich)].  
 all go to.the cinema except (probably) I.NOM (probably)

The mechanism of the analysis involves movement to SpecC of the material to be spelled out plus subsequent deletion of C'. Thus, the approach assimilates *außer* to other phenomena analysed by ellipsis, such as sluicing (Ross 1969, Merchant 2001), fragment answers (Merchant 2004), parentheticals (Döring 2014), and left and right dislocation (Ott 2014, Ott and de Vries 2016).

The accusative case and genitive case in (1-b) and (1-c), respectively, thus receive an explanation: there is a deleted verb which assigns accusative in (4) (*treffen* “meet”) and genitive in (5) (*überführen* “convict”).

- (4) a. Wir haben alle getroffen *außer* ihren Freund.  
 we have all met except her.ACC friend.ACC  
 b. Wir haben alle getroffen *außer* [<sub>CP</sub> [<sub>NP</sub> ihren Freund ] ~~wir t<sub>i</sub> getroffen haben~~].
- (5) a. Er ist aller Verbrechen überführt *außer* des Mordes an seiner Frau.  
 He is all crimes convicted except the.GEN murder.GEN on his wife  
 b. Er ist aller Verbrechen überführt *außer* [<sub>CP</sub> [<sub>NP</sub> des Mordes an s. Frau ] ~~er t<sub>i</sub> überführt w. ist~~].

Finally, examples where the surviving category is an NP in the nominative case (1-d) or a PP (2-a) can equally be analyzed in terms of movement and deletion, see (6-a,b) and (7-a,b), respectively.

- (6) a. Alle gehen ins Kino *außer* [<sub>CP</sub> ich ins Kino gehe ].  
 all go to.the cinema except I to.the cinema go  
 b. Alle gehen ins Kino *außer* [<sub>CP</sub> [<sub>NP</sub> ich ] ~~t<sub>i</sub> ins Kino gehe~~].
- (7) a. Wo kann ich bleiben *außer* [<sub>PP</sub> bei dir? ]  
 where may I stay except with you  
 b. Wo kann ich bleiben *außer* [<sub>CP</sub> [<sub>PP</sub> bei dir ] ~~ich t<sub>i</sub> bleiben kann~~].

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## **Since since again**

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(collaborative work with Kai von Stechow)

We examine the behavior of temporal intervals in certain morphosyntactic constructions. In other words, this project falls within the investigation of the expression of time in natural language.

The paper will lay out a certain semantics for the Perfect, and in that light will examine a particularly problematic case. Conclusions from this discussion affect the meaning of the definite article, and also reveal certain impossible Wh-questions.