# snippets

Issue 35 - February 2019

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ISSN 1590-1807

Published in Led on Line - Electronic Archive by LED - Edizioni Universitarie di Lettere Economia Diritto - Milano - Italy https://www.ledonline.it

February 2019

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## **Editorial Statement**

#### 1. Purpose

The aim of *Snippets* is to publish specific remarks that motivate research or that make theoretical points germane to current work. The ideal contribution is brief, self-contained and explicit. One encounters short comments of this kind in earlier literature in linguistics. We feel that there no longer is a forum for them. We want *Snippets* to help fill that gap.

#### 2. Content

We will publish notes that contribute to the study of syntax and semantics in generative grammar. The notes are to be brief, self-contained and explicit. They may do any of the following things:

- point out an empirical phenomenon that challenges accepted generalizations or influential theoretical proposals;
- point out unnoticed minimal pairs that fall outside the scope of any existing theory;
- point out an empirical phenomenon that confirms the predictions of a theory in an area where the theory has not been tested;
- explicitly describe technical inconsistencies in a theory or in a set of frequently adopted assumptions;
- explicitly describe unnoticed assumptions that underlie a theory or assumptions that a theory needs to be supplemented with in order to make desired predictions;
- call attention to little-known or forgotten literature in which issues of immediate relevance are discussed.

We also encourage submissions that connect psycholinguistic data to theoretical issues. A proposal for a pilot experiment in language acquisition or language processing could make for an excellent snippet.

The earliest *Linguistic Inquiry* squibs exemplify the kind of remark we would like to publish. Some of them posed unobserved puzzles. For instance, a squib by Postal and Ross in *Linguistic Inquiry* 1:1 ("A Problem of Adverb Preposing") noted that whether or not we can construe a sentence-initial temporal adverb with an embedded verb depends on the tense of the matrix verb. A squib by Perlmutter and Ross in *LI* 1:3 ("Relative Clauses with Split Antecedents"), challenging the prevailing analyses of coordination and extraposition, noted that conjoined clauses, neither of which contains a plural noun phrase, can appear next to an "extraposed" relative that can only describe groups. Other squibs drew attention to particular theoretical assumptions. For instance, a squib by Bresnan in *LI* 1:2 ("A Grammatical Fiction") outlined an alternative account of the derivation of sentences containing *believe* and *force*, and asked whether there were principled reasons for dismissing any of the underlying assumptions (among them that semantic interpretation is sensitive to details of a syntactic derivation). A squib by Zwicky in *LI* 1:2 ("Class Complements in Phonology") asked to what extent phonological rules refer to complements of classes. None of these squibs was more than a couple of paragraphs; all of them limited themselves to a precise question or observation.

#### 3. Submission details

*Snippets* is an electronic journal. We will solicit submissions twice a year. The submissions that we accept will be posted on the journal website approximately 3 months after each deadline, and all accepted submissions will remain permanently on the website. *Snippets* is intended as a service to the linguistics community. Consequently, authors are advised that, when they submit to *Snippets*, we understand them as allowing their submission to be reproduced if published. At the same time, the rights for the published snippets themselves will remain with the authors. As a result, citation of *Snippets* material will have to indicate the author's name and the specific source of the material.

We will accept electronic submissions at the address <u>snippetsjournal@gmail.com</u>. Electronic submissions may take the form of (a) the text of an e-mail message, or (b) an attached file. The attached file should be a simple text file, a Word file (Mac or Windows), a Rich Text Format (RTF) file, or a PDF. The files must be anonymous, but must be accompanied with information about the authors: name, affiliation, and (postal or electronic) address. Submissions can be of any length below 500 words (including examples), with an additional half page allowed for diagrams, tables, and references. The submissions may not contain footnotes or general acknowledgments, except acknowledgements of funding sources, which must be credited in a line following the references. Authors who wish to acknowledge language consultants are allowed but not required to do so. We will not consider abstracts.

#### 4. Editorial policy

Submissions will be reviewed by our editorial board and review board, and review will be nameblind both ways. While we guarantee a response within 3 months of the submission deadline, we will not necessarily provide more than a yes/no response to the submitter. We allow resubmission (once) of the same piece.

This statement reproduces with minor modifications the editorial statement in Issue 1 of Snippets (January 2000), edited by Carlo Cecchetto, Caterina Donati and Orin Percus.

## *#Only zero*

## Patrick D. Elliott · Leibniz-Zentrum Allgemeine Sprachwissenschaft

DOI: http://dx.doi.org/10.7358/snip-2019-035-elli

In a recent paper, Bylinina and Nouwen (2018) claim that sentences involving the numeral *zero* are subject to obligatory exhaustification. This claim falls out as a result of two assumptions. First, that the pluralization operator  $\times$  yields a full lattice structure, crucially including the bottom element  $\bot$ , which has cardinality 0. This falls out from the definition of  $\times$  given in (1).

(1)  $\times Z = \{ \sqcup X \mid X \subseteq Z \}$  (Bylinina and Nouwen 2018:8)

Second, that numerals give rise to an *at least* reading basically; the *exactly* reading is derived via exhaustification relative to excludable alternatives where the numeral varies. The sentence *Three philosophers attended the talk* is therefore mapped to the Logical Form in (2a). When subject to strengthening via exhaustification, the resulting Logical Form is as in (2b).

- (2) a.  $\exists x (\#x=3 \& \\ \\ philosopher(x) \& \\ \\ attended-the-talk(x))$ b.  $\exists x (\#x=3 \& \\ \\ philosopher(x) \& \\ \\ attended-the-talk(x)) \& \\ \end{tabular}$
- $\neg \exists y (\#y > 3 \& \land philosopher(y) \& \land attended-the-talk(y))$ A consequence of these assumptions is that, prior to exhaustification, sentences involving the nu-

meral zero, such as Zero philosophers attended the talk will always be tautological, as in (3a). This is because every pluralized predicate contains the bottom element  $\perp$ . In order to express a contingent statement, the sentence must be exhaustified, as in (3b).

- (3) a.  $\exists x (\#x=0 \& \\ \\ ) philosopher(x) \& \\ \\ \\ attended-the-talk(x))$ 
  - b.  $\exists x (\#x=0 \& \\ \forall philosopher(x) \& \\ \forall attended-the-talk(x)) \& \\ \neg \exists y (\#y>0 \& \\ \forall philosopher(y) \& \\ \forall attended-the-talk(y))$

In the literature on grammatical exhaustification (see, e.g., Chierchia 2004, Fox 2007, Magri 2009), it is something of a mantra to claim that the exhaustivity operator exh is the covert counterpart of the focus-sensitive operator *only*. Both exh and *only* compose with a prejacent  $\alpha$  and negate the <u>excludable</u> alternatives to  $\phi$  based on the focus-structure of  $\phi$  For our purposes, we can take the excludable alternatives to  $\phi$  to be those sentences  $\psi$  such that  $\psi$  is logically non-weaker than  $\phi$ .

Here we make the novel observation that the numeral *zero* cannot associate with *only*, as illustrated by the infelicity of (4a). Other numerals can, however, associate with *only*, obligatorily giving rise to an *exactly* reading, as illustrated as in (4b). This is exactly what we expect if *only* and exh negate excludable alternatives. There are two possible ways to interpret this result. Most straightforwardly, it casts serious doubt on Bylinina and Nouwen's claim that sentences with *zero* involve obligatory exhaustification. Alternatively, we could interpret this as yet more evidence that the putative parallel between *only* and exh breaks down upon further investigation (see, e.g., Alxatib 2013 and Buccola 2018 for related observations), although for Bylinina and Nouwen this would still leave open the question of why *only* gives rise to an *exactly* reading with other numerals but apparently not *zero*.

- (4) a. #Only zero<sub>F</sub> philosophers attended the talk.
  - b. Only three<sub>F</sub> philosophers attended the talk.

Furthermore, we observe that there is not an absolute ban on *only* associating with *zero*. This seems to be possible when *zero* doesn't pick out a scalar endpoint, such as with the scale of degrees of temperature (thanks to an anonymous reviewer for suggesting this characterization of the data). (5a) entails that there is no n > 0 such that the temperature has risen to n degrees. When *zero* does pick out a scalar endpoint, however, as in (5b), the sentence is again infelicitous.

- (5) a. The water here has only ever risen to  $zero_F$  degrees.
  - b. #The water here has only ever risen by zero<sub>F</sub> centimetres.

It seems natural to assume that the infelicity of *only* in (4a) is a special case of the generalization that, when *zero* picks out a scalar endpoint, it may not associate with *only*; here *zero* picks out the minimum of the cardinality scale. This does not fall out straightforwardly from Bylinina and Nouwen's analysis.

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# Unconditional sluicing: An ellipsis identity puzzle

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DOI: http://dx.doi.org/10.7358/snip-2019-035-elmu

Sluices can be embedded under what Rawlins (2008, 2013) calls 'unconditional' predicates such as no(t) matter, a construction we refer to as unconditional sluicing (1). (Merchant 2001 refers to them as 'concessive sluices'.) An interesting property of such sluices is that they do not have the same distribution as ordinary (merger) sluices. For example, unconditional sluices are licensed by NPI correlates (1a), unlike ordinary sluices (1b). This difference follows if unconditional sluices actually involve a predicational copula structure in the ellipsis site, rather than full isomorphic structure (Barros et al. 2014; Barros 2014), as per the continuations in (1).

- (1) a. She won't talk to anyone it doesn't matter who ( $\checkmark$  they are / \*she won't talk to)!
  - b. \*She won't talk to anyone but I don't know who (they are / she won't talk to)!

It is noteworthy that the putative elided copular structure from (1a) is not structurally isomorphic to any of the overt material that appears elsewhere in the sentence (see Barros et al. 2014 for related discussion). Moreover, it is not trivial to show that predicational sources fulfill a semantic identity condition either, such as Merchant's (2001) e-GIVENness. We abstract away from this issue here.

We focus on another challenge to the view that unconditional sluicing involves a copula source. The challenge comes from languages with richer morphological case-marking. In German, unconditional sluices under *egal* ('no matter') show case matching with the correlate (2a), which is typically assumed to diagnose isomorphic structure in the ellipsis site (Ross 1969; Merchant 2001). However, an overt continuation is unacceptable, as indicated by the parenthesized material in (2a). This unacceptability mirrors that seen in (1a), and suggests that we actually have an underlying copula structure, as in (2b). But as the example shows, the overt copular continuation requires nominative marking on the wh-item, differing in this respect from the sluiced example in (2a). Finally, note that ordinary sluicing is not licensed in the same context (2c).

- (2) a. Er würde wirklich jed-em vertrauen, egal {wem /\*wer} (\*er vertrauen he would really everyone-DAT trust, EGAL {who.DAT /\*who.NOM} he trust würde).
   would 'He would really trust anyone, it doesn't matter who (\*he would trust)!'
  - b. Er würde wirklich jed-em vertrauen, egal {\*wem / wer} es ist he would really everyone-DAT trust, EGAL {\*who.DAT / who.NOM} it is. 'He would really trust anyone, it doesn't matter who they are!'
  - c. \*Er würde wirklich jed-em vertrauen, aber ich weiß nicht wem (er vertrauen he would really everyone-DAT trust, but I know not who.DAT he would

würde). trust 'He would really trust anyone, but I don't know who.'

A further connectivity diagnostic comes from P-stranding. It is well-known that German does not allow P-stranding under sluicing (Merchant 2001:94), and unconditional sluicing obeys this same restriction (3).

(3) Ich muss mit jemand-em reden, egal \*(mit) wem (\*es ist)! I must with someone-DAT talk EGAL with who (\*it is) 'I have to talk to someone, it doesn't matter who.'

Thus, unconditional sluicing constitutes an interesting challenge, as it seems that conflicting requirements are imposed on the ellipsis site. The range of available continuations in (2) suggests that a copula structure is required. However, the remnant clearly shows connectivity effects (viz. case and P-stranding), which are typically attributed to isomorphic structure in the ellipsis site. A similar problem is discussed in Saab 2015 and Messick et al. 2016, although in these studies the data points that parallel (1a) and (2a) are arguably different, in having grammatical but contradictory overt (clausal) continuations, rather than the ill-formed ones like in (1a) and (2a). The nature of this unacceptability, and what it tells us about the content of the ellipsis site in unconditional sluicing, remains to be seen.

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# A Distinctness Effect in the German Noun Phrase

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DOI: http://dx.doi.org/10.7358/snip-2019-035-murp

In standard German, there are two ways to express possession: with a nominal genitive modifier (1a) or with a *von*-PP (1b).

- (1) a. ein Freund [mein-es Vater-s]
  - a friend [my-GEN father-GEN]
  - b. ein Freund [von mein-em Vater] a friend [of my-DAT father] 'a friend of my father'

A long-standing puzzle is why bare mass nouns such as *Wasser* ('water') and *Holz* ('wood') are not possible as genitive attributes (2a, 3a), but only as possessive PP complements (2b, 3b) (see Gallmann 1998; Müller 2002; Sternefeld 2004). Such genitive complements become possible if the noun is no longer bare, i.e. with a determiner or demonstrative (2c, 3c). A further complication to this picture is that bare nouns can be used as genitive attributes if they are modified by an adjective (2d, 3d).

- (2) a. \*der Konsum [Wasser-s] (Kunkel-Razum and Münzberg 2009:980) the consumption water-GEN
  - b. der Konsum [von Wasser] the consumption of water
  - c. der Konsum [d-es / dies-es Wasser-s] the consumption the-GEN / this-GEN water-GEN
  - d. der Konsum [frisch-en Wasser-s] the consumption fresh-GEN water-GEN
- (3) a. \*die Verarbeitung [Holz-es] the treatment wood-GEN
  - b. die Verarbeitung [von Holz] the treatment of wood
  - c. die Verarbeitung [d-es / dies-es Holz-es] the treatment the-GEN / this-GEN wood-GEN
  - d. die Verarbeitung [tropisch-en Holz-s] the treatment tropical-GEN wood-GEN

The puzzle is therefore why a bare mass noun can only be the complement to a noun if it is accompanied by a preposition, determiner or adjective. I argue that this can be explained by what Richards (2010) calls *Distinctness*, as defined in (4).

(Gallmann 1998:155)

(4) **Distinctness** (Richards 2010:5): If a linearization statement  $\langle \alpha, \alpha \rangle$  is generated, the derivation crashes.

As Richards (2010:5) explains, "this condition rejects trees in which two nodes that are both of the type  $\alpha$  are to be linearized in the same Spell-Out domain". This can now account for the ungrammaticality of (2a, 3a). Assuming that D is a phase head and that bare nouns are simply NPs (Paul 2004), then the presence of two NP nodes in the Spell-Out domain of the same D head results in the illicit linearization statement  $\langle NP, NP \rangle$  (5).



It should be noted here that Richards (2010:6) assumes that lexical material (such as nouns) is "very generally immune to Distinctness" (although this is not entirely unproblematic, see Richards 2010:210, fn. 34). This follows in Distributed Morphology if functional material is inserted late, whereas lexical material is not. However, there are numerous arguments for Late Insertion of roots as well (Haugen and Siddiqi 2013; Harley 2014; de Belder and van Craenenbroeck 2015), and I adopt this position here. Perhaps one could assume variation in the timing of insertion and Distinctness evaluation, and thus derive flexibility regarding when lexical material counts for Distinctness. The details of such a view must be left to future research, however.

Richards (2010) shows that many Distinctness violations can be repaired by the addition of another phase head into the structure. This leads to the relevant XPs occurring in different Spell-Out domains. Under this view, what makes the other examples in (2) and (3) possible is the introduction of another Spell-Out domain by a phase head. This can either be a P, D, or A head. As (6) shows, this means that the non-distinct NP nodes are consigned to different Spell-Out domains and therefore no longer violate *Distinctness*.



Furthermore, the following contrast supports the assumption that proper names differ from bare nouns in having a silent D head, thus avoiding a *Distinctness* violation (7a).

(7)	a.	[ <sub>DP</sub> die [ <sub>N</sub>	NP Verschmützu	ng [ <sub>DP</sub> ∅ [ <sub>NP</sub> Rom-s	]]]]]
		the	pollution	Rome-GEN	ſ
		'the pollu			

b. \*[<sub>DP</sub> die [<sub>NP</sub> Verschmützung [<sub>NP</sub> Wasser-s ]]] the pollution water-GEN 'the pollution of water'

The fact that adjectives pattern alike with prepositions and determiners provides an argument for their status as (phase) heads outside the NP, i.e. for an AP-over-NP structure (Abney 1987; Sadler and Arnold 1994; Bošković 2005). If adjectives were otherwise, they would not form a natural class with P and D heads. That said, the status of adjectives is still controversial (see e.g. Svenonius 1994) and faces some challenges of its own, e.g. regarding distributional facts (Abney 1987).

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# Extraction of R-pronouns via an intermediate position within the prepositional domain

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DOI: http://dx.doi.org/10.7358/snip-2019-035-nguy

In this snippet, I argue that extraction of R-pronouns proceeds via an intermediate position within the prepositional domain in Danish. An R-pronoun, a term coined by van Riemsdijk (1978), is a locative element that precedes a preposition or leaves it stranded (but see Noonan 2017). In Danish, such R-pronouns are *her* 'here', *der* 'there', and *hvor* 'where'.

In Danish, there is a class of (near-)synonymous prepositions. These prepositions can be divided into *i*-prepositions (because they contain an *i*) and non-*i*-prepositions. The *i*-prepositions take R-pronouns; the non-*i*-prepositions do not:

(1)	der- <b>i</b> -mellem there-in-between	*der-mellem there-between
(2)	der- <b>i</b> -gennem there-in-through	*der-gennem there-through
(3)	der- <b>i</b> -mod there-in-towards	*der-mod there-towards
(4)	der- <b>i</b> -blandt there-in-among	*der-blandt there-among

It remains unclear whether *i*-prepositions are segmentable into *i* 'in' + another preposition. Both *i*-prepositions and non-*i*-prepositions can be introduced by a directional element, little p, which I assume is a functional head above the lexical PP (e.g. Koopman 2000 and van Riemsdijk 1990). p *ned* 'down', for instance, can introduce a PP (5), but not a nominal (6):

(5)	Vi kørte ned	mellem / i-mellem træer-ne. between / in-between trees-the
		gennem / i-gennem skov-en. through / in-through forest-the
	we drove down	mod / i-mod træer-ne. toward / in-toward trees-the
		blandt / i-blandt træer-ne. among / in-among trees-the

(6) \*Vi kørte ned gade-n / træer-ne. we drove down street-the / trees-the

If p does not introduce a PP, it may independently take an R-pronoun, see (7). If p does introduce

a PP, an R-pronoun can only appear if selected by the preposition, see (8) versus (9):

- (7) der-ned/ud/op ... there-down/out/up
- (8) \*Vi kørte der-ned mod / gennem / blandt / mellem. we drove there-down toward / through / among / between 'We drove down toward/through it/there.'
  'We drove down among/between them.'
- (9) Vi kørte der-ned i-mod / i-gennem / i-blandt / i-mellem. we drove there-down in-toward / in-through / in-among / in-between 'We drove down toward/through it/there.'
  'We drove down among/between them.'

Since non-*i*-prepositions do not take R-pronouns, see (1-4), and since p (for some reason) does not take an R-pronoun, no R-pronoun can appear in (8). The examples in (8) are thus ungrammatical.

Crucially, *i*-prepositions do take R-pronouns—see (1-4)—and an R-pronoun can in fact be generated and appear to the left of p, see (9).

It is therefore plausible that the R-pronoun is generated as the sister of the *i*-preposition *igennem* — we need not decide on linear ordering here — and subsequently moves to the left of p *ned*, as illustrated in (10).

(10)  $\det_{i}^{\downarrow}$  ned  $[t_{i}^{\downarrow} i-gennem]$ there down in-through

Since the R-pronoun can be topicalized with *ned* and *igennem*, they form a constituent, which is most likely a prepositional constituent:

(11) [Der-ned-i-gennem]<sub>i</sub> kørte vi  $t_i$ . there-down-in-through drove we

Thus, the R-pronoun undergoes movement within the prepositional domain. Furthermore, the R-pronoun can leave the prepositional domain altogether:

(12) [Der] kørte vi ned i-gennem. there drove we down in-between

The facts above suggest that R-pronouns move via a position within the prepositional domain in a bona fide P-stranding language like Danish. This is important since it is conceivable that extraction in such languages does not proceed via an intermediate position (cf. Abels 2003).

Note that Koopman (2000) makes a similar argument for intermediate movement of R-pronouns in Dutch, which, however, is not a bona fide P-stranding language. Under the null hypothesis that P-stranding patterns alike cross-linguistically, we can predict more generally that P-stranding does involve such movement. Given the data here from Danish, we now have some support for this prediction. That this would be the case, though, is not necessarily evident at first glance. To see this, first consider an alternative view, according to which anti-locality blocks such movement of the complement of a P-head (cf. Abels 2003). Under such a view, P-stranding languages result

from the possibility of (perhaps non-successive-cyclic) extraction from the prepositional domain (i.e. without movement via this intermediate position). Non-P-stranding languages, then, would be those that do not allow for this type of extraction. When it comes to Dutch, then, which does not generally allow P-stranding, but does allow it with R-pronouns, we might suppose that the intermediate movement discussed in Koopman is some exceptional property of R-pronouns, but that it does not extend more generally to all cases of P-stranding (cf. Abels). Returning now to Danish, which does generally allow P-stranding, under the null hypothesis that all P-stranding in a language behaves similarly, we have evidence against this alternative view. That is, on the basis of the R-pronoun movement documented here in Danish, we have some support for P-stranding resulting in general via movement internal to the prepositional domain. It should be noted, however, that an alternative hypothesis still exists, namely that all R-pronouns are exceptional in undergoing such intermediate movement, such that Dutch and Danish (and perhaps all P-stranding languages) behave similarly in not generally allowing such movement.

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