

EXPLETIVES WORKSHOP, BOCHUM, JUNE 2022

# THE DIVERSITY OF EXPLETIVES

AN LFG APPROACH

Hannah Booth



# EXPLETIVES FROM A CROSSLINGUISTIC PERSPECTIVE

- **Expletive elements** have been central in the development of many theories of grammar
- But by no means do all languages/language stages have expletives; in fact they are relatively rare crosslinguistically
  - "used systematically in a tiny minority of the world's languages, viz. in the Germanic languages and in certain Romance languages" (Breivik 1984)
  - an "exotic" feature of West European languages (Dahl 1990)
  - "English is actually rather unusual crosslinguistically in using expletive subjects. This is fairly unusual outside of Europe" (Dryer 2007)
  - "a characteristic and typologically rare feature of Standard Average European" (Wälchli 2011)
  - "a rarity among the world's languages" (Camacho 2013)

# **EXPLETIVES FROM A CROSSLINGUISTIC PERSPECTIVE**

- Various proposals to account for the typological distribution of expletives
- In early work on (non-)configurationality (Hale 1982, 1983), an absence of expletives was said to be characteristic of non-configurationality
  - Diachronic work; rise of expletives subjects in line with rise of configurational clause structure with an obligatory subject position (e.g. von Seefranz-Montag 1983; Faarlund 1990; Bauer 2000)

## EXPLETIVES FROM A CROSSLINGUISTIC PERSPECTIVE

- However, the connection between expletives and configurationality has been largely set aside with the general consensus within (transformational) generative syntax that all languages are underlyingly configurational (e.g. Jelinek 1984; Speas 1990; Baker 2001)
- Alternative accounts for the distribution of expletives have been put forward in relation to:
  - licensing of null subjects and presence/absence of rich verbal agreement (Rizzi 1982, 1986;
     Falk 1993; Richards & Biberauer 2005; Biberauer 2010)
  - verb position: V1 languages are expected to lack expletives (Woolford 1991; Polinsky 2016);
     V2 as key motivation for expletives in some Germanic languages (e.g. Haiman 1971)

### THIS TALK

- Re-examine the relation between configurationality and expletives from the perspective of Lexical Functional Grammar (Bresnan & Kaplan 1982; Bresnan et al. 2015; Dalrymple et al. 2019), which enforces a strict separation between position and function and thus allows for languages where:
  - subjects are positionally licensed
  - subjects are morphologically licensed
  - subjects are licensed via some combination of the two
- I will outline an approach to expletives which:
  - allows for a straightforward account for why (different types of) expletives occur in configurational languages
  - can also account for the relation between expletives and verbal agreement
  - offers interesting opportunities for understanding the diachrony of expletives
  - can be extended to account for (different types of) discourse-related expletives

# CONFIGURATIONALITY IN LFG



- LFG is a "declarative" approach to grammar; it does not commit to any procedural mechanism for deriving linguistic representations (Levine & Meurers 2006; Sells 2021)
- All information is simultaneously present in parallel
- Different types of linguistic information are represented at independent dimensions which are related to each other within an overall projection architecture
- Core components of syntactic representation:
  - **c-structure** (category and constituency)
  - **f-structure** (abstract functional information)
- Also relevant (later) today: i(nformation)-structure

#### A quick look at f-structure:

- Information about argument functions, e.g. SUBJ(ect), OBJ(ect) and non-argument functions, e.g. ADJ(unct)
  - ⇒ subject and object are thus f-structure primitives
- Information about grammatical features e.g. TENSE, CASE, DEF(initeness)
- PRED, which is a pointer into the semantics of a predicate and captures any arguments a predicate requires.
- Represented in terms of attributes and their values in an AVM (attribute-value matrix)

(1) Mary kicked the ball.

(2)

- Constraints on f-structure:
  - (3) Completeness
     Every function designated by a PRED must be present in the f-structure of that PRED.
  - (4) Coherence
     Every argument function in an f-structure must be designated by a PRED.
  - (5) Subject Condition
    Every verbal predicate must have a SUBJ.

- Any f-structure can be formally described via a f(unctional)-description, which consists of at least one functional application (i.e. a constraint)
  - (6) (f TENSE) = PST  $\Rightarrow$  specifies that an f-structure f has an attribute TENSE, whose value is PST
- f-structures are the minimal solution which satisfies all the constraints in an f-description
  - (7) f [TENSE PST]
- The full f-description of an utterance is given by functional applications associated with phrase-structure rules and lexical items

#### A quick look at c-structure:

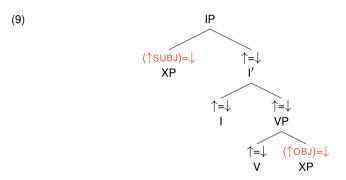
- Information about argument functions (and thematic roles) is handled at other dimensions
- Consequence for c-structure: purely information about categories of constituents and constituent structure
- Represented in terms of a syntactic tree diagram
- Determined solely on the basis of constituency tests and word order
  - ⇒ "What You See Is What You Get" approach
  - ⇒ No transformations/movement assumed

- Built into the LFG architecture is the assumption that f-structures will be broadly similar across languages while c-structures will vary
- Language-specific c-structure rules determine the set of permissable c-structures
- But they are not rewrite rules which serve as procedures to build trees; rather they are "node admissability conditions" (McCawley 1968) which determine which structures are maximally allowed
- (Additional) constraint on c-structure:
  - (8) Economy of Expression All syntactic phrase structure nodes are optional and are not used unless required by independent principles (completeness, coherence, semantic expressivity).

- Work on non-configurational languages has been central within LFG (e.g. Simpson 1991;
   Kroeger 1993; Austin & Bresnan 1996; Nordlinger 1998; Snijders 2015)
- In this talk, I will assume two distinct types of configurationality:
  - **Argument configurationality (AC)**: the extent to which argument functions are structurally licensed (Nordlinger 1998; Snijders 2015)
  - Discourse configurationality (DC): the extent to which discourse functions are structurally licensed (Vilkuna 1989; Kiss 1995, 2001; Butt & King 1996)
    - ⇒ relevant later

- Within LFG, argument configurationality concerns the correspondence between c-structure and f-structure
- The distinction between an AC language and a non-AC language can be modelled in terms of how SUBJ and OBJ at f-structure are specified

■ AC language: SUBJ and OBJ specified via functional applications associated with specific c-structure positions ⇒ structural specification



- ↓ and ↑ are metavariables over f-structure variables and serve to relate every node in the c-structure to its corresponding f-structure
  - ↓ denotes the f-structure corresponding to that node itself
  - ↑ denotes the f-structure corresponding to that node's mother node

■ non-AC language: SUBJ and OBJ specified via functional applications associated with morphologically marked lexical items ⇒ morphological specification

#### Head-marking language:

 Morphological marking on the verb provides information about the features of its subject in terms of the noun class it belongs to (cf. Börjars et al. 2019 on Mbuun, Bantu)

```
(10) V (↑ PRED) = '...< SUBJ,OBJ>'
(↑ SUBJ NCLASS) = 1

(11) N (↑ PRED) = '...'
(↑ NCLASS) = 1

(12) N (↑ PRED) = '...'
(↑ NCLASS) = 2
```

■ Verb specifies that its SUBJ is of noun class 1, ensuring the correct nominal is identified as SUBJ

#### Depdendent-marking language

- "Constructive case" approach (cf. Nordlinger 1998 on Australian languages);
  - ⇒ case-marking on dependents specifies SUBJ and OBJ

```
(13) V \qquad (\uparrow \text{ PRED}) = '... < \text{SUBJ, OBJ>'} 
(\uparrow \text{ SUBJ CASE}) =_{c} \text{ NOM} 
(\uparrow \text{ OBJ CASE}) =_{c} \text{ ACC} 
(14) V \qquad (\uparrow \text{ PRED}) = '...' 
(\uparrow \text{ CASE}) = \text{ NOM} 
(\text{SUBJ} \uparrow) 
(15) V \qquad (\uparrow \text{ PRED}) = '...' 
(\uparrow \text{ CASE}) = \text{ ACC} 
(\text{OBJ} \uparrow)
```

■ (SUBJ ↑) and (OBJ ↑) are "inside-out" functional applications; they specify the f-structure to which the nominal belongs (as value of the SUBJ or the OBJ function)

# **ECONOMY AND EXPLETIVES**



## **ECONOMY OF EXPRESSION**

Recall: c-structure is assumed to be constrained by Economy of Expression

#### (16) **Economy of Expression**

All syntactic phrase structure nodes are optional and are not used unless required by independent principles (completeness, coherence, semantic expressivity).

- This ensures that each c-structure node contributes to the overall f-structure; a c-structure node which provides only redundant information will be omitted
  - ⇒ "principle of functionality of c-structure" (Bresnan et al. 2015)

# CONSEQUENCE FOR EXPLETIVES

- A consequence of Economy of Expression is that c-structure alone cannot in principle make a node obligatory
- In order to override Economy of Expression, an expletive must contribute something at f-structure (or at some other level of representation...)
- In other words, an expletive cannot be exclusively licensed at c-structure

# CONSEQUENCE FOR EXPLETIVES

- On this view, expletives are more than exclusively structurally-motivated fillers
  - they are structural in that they have representation at c-structure despite a lack of semantics
  - but they must be licensed via the interaction of c-structure with other dimensions of representation (e.g. f-structure, and/or perhaps i(nformation)-structure)
- Proposal: expletives contribute functional information in a specific (and indirect) way
  - ⇒ via occupying a specific c-structure position which is associated with a particular argument function at f-structure
- **Consequence**: expletives will be restricted to configurational languages/language stages
  - only in these languages are the relevant mapping correspondences between c-structure and f-structure such that expletives can contribute functional information purely by occupying a particular c-structure position

# SUBJECT EXPLETIVES



# PRESENTATIONAL AND IMPERSONALS

- Two main environments crosslinguistically in which subject expletives appear:
  - presentationals
  - impersonals
- They differ in terms of the subcategorisation frames imposed by their verbal predicates:

#### **PRESENTATIONALS**

- (17) a. **There** appeared a man.
  - b.  $(\uparrow PRED)='APPEAR < SUBJ>' \Rightarrow SUBJ requires a PRED feature to satisfy Completeness$

#### **IMPERSONALS**

- (18) a. It rained
  - b.  $(\uparrow PRED)='RAIN<>SUBJ'$   $\Rightarrow$  SUBJ cannot have a PRED feature

\*Note that the subject of a weather verb is standardly analysed within LFG as non-thematic; not a quasi-argument with a special thematic role

- Example: (modern) Swedish (drawing on data from Börjars & Vincent 2005; Zaenen et al. 2017)
- Assumption: Swedish does not systematically specify argument functions via case-marking on nominals or agreement marking on verbs
  - ⇒ relies on positional specification of argument functions

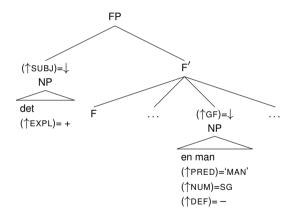
- Swedish presentationals: both the expletive (det) and the postverbal noun phrase ("pivot", cf. Beaver et al. 2005) show subject properties
  - Expletive inverts which the finite verb:
    - (19) Hade **det** alltid varit några katter i köket?
      had EXPL always been some cats in kitchen.DEF
      'Had there always been some cats in the kitchen?' (Zaenen et al. 2017: 267)
  - Pivot obligatorily requires reflexive *sin* when pronominalised:
    - (20) Det hade kommit **en man** med **sin**/\*hans fru

      EXPL had come a man with his-REFL/his-NONREFL wife

      'There had come a man with his (own) wife' (Zaenen et al. 2017: 268)

- Börjars & Vincent (2005) model this observation by assuming that both the expletive and the pivot contribute to the SUBJ function at f-structure
- Usually, a single c-structure constituent straightforwardly maps to a grammatical function (e.g. SUBJ) at f-structure
- But by separating position from function, LFG in principle allows for one-to-many and many-to-one correspondences between c-structure and f-structure
  - Two different c-structure constituents can map to SUBJ; the functional information specified by the two constituents unifies at f-structure – provided there is no clash of values

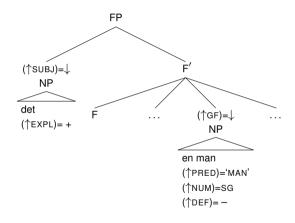




SUBJ PRED NUM DEF EXPL	'MAN' SG - +
------------------------	-----------------------

- Pivot contributes a PRED value (in the normal way)
- Expletive does not contribute a PRED value (semantically vacuous)
  - ⇒ the SUBJ has a single PRED value, satisfying Completeness and Coherence





```
SUBJ PRED 'MAN' NUM SG DEF - EXPL +
```

- Pivot does not occur in the position in which subjects are licensed (likely due to pragmatic reasons)
- As Swedish subjects can only be positionally specified, the expletive is required to occupy the subject position, in order to specify the SUBJ function at f-structure

- The Swedish expletive famously contrasts with the Icelandic expletive pao (e.g. Platzack 1983; Maling 1988)
- Unlike the Swedish expletive, the Icelandic expletives does not behave positionally like a subject; restricted to the clause-initial prefinite position
  - (23) a. Það hafði einhver köttur alltaf verið í eldhúsinu
    EXPL had.3SG some-NOM cat-NOM always been in kitchen.DEF
    'There had always been some cat in the kitchen' (Thráinsson 2007: 314)
    - Hafði (\*það) einhver köttur alltaf verið í eldhúsinu?
       had.3sg expl some-nom cat-nom always been in kitchen.def
       'Had there always been some cat in the kitchen?' (Zaenen et al. 2017: 263)
- Zaenen et al. (2017) confirm that the Icelandic expletive shows no subject properties at all

- Account: the Icelandic expletive does not contribute to the SUBJ function at f-structure (contra Sells 2005)
  - Icelandic has retained rich verbal agreement and case morphology
  - So possibilities for morphological specification of argument functions are available; though they
    are assumed to combine with position in a complex way (Zaenen et al. 1985, 2017; Booth 2021)
  - Thus no motivation for an expletive to serve as a "positional" subject
- Instead: paö contributes information relating to discourse functions at i-structure (in line with Zaenen 1983; Rögnvaldsson & Thráinsson 1990; Sells 2005; Sigurðsson 2007; Booth et al. 2017)

## **IMPERSONALS**

■ Recall: the SUBJ of an impersonal construction cannot have a PRED feature

- Thus, a subject expletive in an impersonal construction cannot be motivated in order to positionally license a referential, thematic subject
- Instead: it is required to contribute a (defective) SUBJ function in order to satisfy the Subject Condition at f-structure

- The impersonal expletive still specifies the SUBJ function in the same way as a presentational expletive
  - ⇒ simply via occupying the position in which the SUBJ is positionally licensed

# **IMPERSONALS**

- Impersonal expletive subjects will be similarly restricted to languages where SUBJ is (exclusively) positionally specified (e.g. Swedish, English)
- By contrast, in a language where SUBJ is morphologically specified via verbal agreement, the Subject Condition can be satisfied without the need for a subject expletive (cf. Berman 1999, following the theory of pronoun incorporation of Bresnan & Mchombo 1987)
  - Verbal agreement morphology can introduce a SUBJ at f-structure which has person, number, and case features but no PRED feature (satisfying Completeness and Coherence)

(26)

rignir V (
$$\uparrow$$
 PRED)=RAIN'<>SUBJ' ( $\uparrow$  SUBJ CASE) = NOM ( $\uparrow$  SUBJ PERS) = 3 ( $\uparrow$  SUBJ NUM) = SG PRED 'RAIN <> SUBJ' (CASE NOM PERS 3 NUM SG)

- SUBJ is present at f-structure but not at c-structure
  - ⇒ This is as close as one can get within LFG to a "null expletive" (but note that it's only licensed under very specific circumstances)

# SUMMARY

- Both presentational (subject) expletives and impersonal (subject) expletives serve to positionally specify a SUBJ at f-structure via occurring in the relevant c-structure position in an argument-configurational language
- But there is a subtle difference:
  - Presentational subject expletives license a thematic SUBJ outside of its canonical position, via f-structure unification
  - Impersonal subject expletives license a non-thematic SUBJ solely in order to satisfy the Subject Condition at f-structure

# CONSEQUENCES FOR DIACHRONY

- Since both presentational and impersonal (subject) expletives are assumed to be licensed by argument configurationality, they are predicted to appear with the rise of argument configurationality, in line with previous observations (e.g von Seefranz-Montag 1983; Faarlund 1990; Bauer 2000)
- But only the impersonal subject expletive requires the Subject Condition to be licensed, which is generally understood within LFG to be language-specific rather than universal (Bresnan & Kanerva 1989; Bresnan & Zaenen 1990; Mohanan 1994; Alsina 1996; Kibort 2007)

# CONSEQUENCES FOR DIACHRONY

- One scenario: argument configurationality develops in a language before the Subject Condition is formally established
- Expectation: presentational subject expletives appear before impersonal expletives, as in e.g. Swedish
  - expletive det prior to 1600 is restricted to existentials/presentationals (Falk 1993)
  - in impersonal constructions the expletive develops only later, with the main increase during the 17th century (Platzack 1987)
- Note that the alternative scenario (Subject Condition before AC) is NOT expected to yield impersonal subject expletives before presentational subject expletives
  - subject expletives (in any context) are only predicted when subjects are positionally rather than morphologically specified

# CONSEQUENCES FOR DIACHRONY

- Another possibility: an expletive which is initially licensed as a positional subject in a presentational construction attracts more subject properties over time
- In line with the "attraction hypothesis" of Gast & Haas (2011):
  - Latin presentationals: the pivot shows subject properties
  - modern French presentationals: expletives shows subject properties
- Once a language specifies the subject positionally and thus requires an expletive in presentational constructions, the expletive will go on to acquire further subject properties, in turn further reinforcing the association of the relevant position with subjecthood

# **DISCOURSE EXPLETIVES**



## DISCOURSE EXPLETIVES

- Work on various languages has highlighted the fact that not all expletives are subjects
- In particular, "pragmatic expletives", have attracted a good deal of attention in recent years, across Romance varieties (Hinzelin 2009; Corr 2017), in Finnish (Kaiser 2019) and Icelandic (Rögnvaldsson 1983; Sells 2005) and elsewhere (Haegeman et al. 2017)
- The most commonly discussed example of a pragmatic expletive is the "expletive topic" (Faarlund 1990)
  - though often treated in pure syntactic terms, as fillers to satisfy V2 ("Vorfeld/prefield expletive")
     (Haiman 1971; Breckenridge 1975; Thráinsson 1979; Lenerz 1985; Abraham 1993)
- Despite the increased attention on pragmatic expletives, their potential connection with discourse configurationality has not been particularly researched

# EXTENDING THE ACCOUNT TO DISCOURSE CONFIGURATIONALITY

- Although Economy of Expression is mainly discussed in the context of c-structure nodes contributing functional information, Bresnan et al. (2015) acknowledge that this can extend to other dimensions of linguistic information, though they do not develop this any further
- One obvious possibility is to extend this to information structure, especially considering the fact that, in discourse-configurational languages, discourse functions (rather than argument functions) are positionally licensed
  - ⇒ just as functional requirements play a role in constraining c-structure, information structural requirements can too...

# LFG'S I-STRUCTURE

- LFG represents information about discourse functions (e.g. TOPIC, FOCUS) at an independent i-structure (Butt & King 1996; King 1997)
- Like f-structure, i-structure is represented as an attribute-value-matrix

```
Q: What did Maria buy?

A: Maria bought a cactus

FOCUS

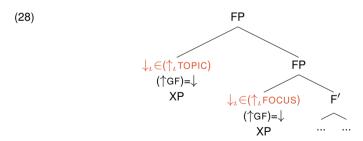
TOPIC {[PRED-FN 'MARIA']}

FOCUS {[PRED-FN 'CACTUS']}
```

- PRED-FN indicates that the predicate value is picked up from the value of PRED in the f-structure
- Thus discourse functions (TOPIC,FOCUS) are generally assumed to be i-structure primitives, just as SUBJ and OBJ are f-structure primitives

## DISCOURSE CONFIGURATIONALITY IN LFG

- Thus discourse configurationality in LFG concerns the correspondence between c-structure and i-structure, and specifically whether discourse functions are positionally licensed or otherwise (e.g. via prosody and/or discourse markers)
- In a discourse-configurational language, discourse functions are positionally specified (see e.g. Butt & King 1996, 1997; Gazdik & Komlósy 2011; Booth 2021)



## DISCOURSE CONFIGURATIONALITY IN LFG

- In a non-discourse-configurational language, discourse functions are not licensed via c-structure positions; instead discourse markers and/or prosody do the work
- The formal machinery for this remains largely to be developed within LFG
  - Sharma (2003) proposes for discourse clitics in Hindi that they bear an inside-out equation in the lexical entry which specifies the discourse function that it's f-structure belongs to:

```
(29) hī (FOCUS↑)
```

 On the interface between prosody and information structure, see e.g. Dalrymple et al. (2011) and Butt et al. (2016)

## A FOCUS EXPLETIVE IN SOMALI

- On this view of discourse configurationality, one expects to find topic/focus expletives in those languages which positionally license these discourse functions
- Somali has been argued to be discourse-configurational (Svolacchia et al. 1995)
  - there is obligatory focus of one element in every main declarative clause
  - foci occur in a specific position the pre-verbal position (Svolacchia et al. 1995; Saeed 2004; Mereu 2009)

## A FOCUS EXPLETIVE IN SOMALI

- Somali also exhibits a special type of focus construction, the so-called "waxa construction" (Svolacchia et al. 1995; Lecarme 1999; Saeed 2004; Mereu 2009; Frascarelli 2010)
  - "heavy" foci are obligatorily postverbal, i.e. outside the canonical focus position
  - an expletive-like element waxa occurs in the canonical (preverbal) focus position
  - (30) a. [What would you like?]
    - b. **Waxa**an doonayaa shaah, caano iyo sonkor EXPL-I want cup tea milk and sugar 'I want TEA, MILK AND SUGAR' (Svolacchia et al. 1995)
- Possibility: waxa occurs in the focus position in order to positionally specify a Focus at
  i-structure, which allows the postverbal constituent to receive a focus interpretation

## DISCOURSE CONFIGURATIONALITY AND EXPLETIVES

- A (quick!) survey of some of the poster children of discourse configurationality
- Basque (Ortiz de Urbina 1995)
  - Focus must be pre-verbal (Fiorini 2021)
  - An expletive ba- which occurs in preverbally in certain contexts in order to bear mean stress (Ortiz de Urbina 1994; Szendri 2004) ⇒ interaction with prosody
- Finnish (Vilkuna 1989, 1995)
  - In "zero person sentences" (impersonals which imply a generic human subject), the preverbal position is often occupied by a topic (Kaiser 2019)
  - If there is no topic to occupy this position, it must be occupied by an expletive (sitä)
  - Analysed as an expletive topic by Holmberg & Nikanne (2002) but it also interacts with other pragmatic features (incl. speaker-affected meaning) (Kaiser 2019)
- Hungarian (Kiss 1995)
  - A pronominal element that co-occurs with a clausal argument, but positionally free (Kiss 2002)
  - Also a wh-expletive (Horvath 1997; Mycock 2004)

## GERMANIC "TOPIC" EXPLETIVES

- Recall: Icelandic expletive pað
  - (31) a. Pað hafði einhver köttur alltaf verið í eldhúsinu
    EXPL had.3SG some-NOM cat-NOM always been in kitchen.DEF
    'There had always been some cat in the kitchen' (Thráinsson 2007: 314)
    - Hafði (\*það) einhver köttur alltaf verið í eldhúsinu?
       had.3sg expl some-nom cat-nom always been in kitchen.def
       'Had there always been some cat in the kitchen?' (Zaenen et al. 2017: 263)
- On the basis that the expletive occurs in clauses which lack a topic ("thetic") it has been claimed that the expletive signals a topicless clause (Zaenen 1983; Rögnvaldsson & Thráinsson 1990; Sells 2005)
  - ⇒ But the exact motivation and mechanism for this remains unclear

# GERMANIC "TOPIC" EXPLETIVES

Icelandic allows topic-drop of various types (Sigurðsson 2019)

```
(32) Kemur hún? Veit ég ekki
comes she know I NEG
'Will she come? (That), I don't know' (Sigurðsson 2019)
```

- Clearly Icelandic in principle permits a sentence which lacks a topic at c-structure, so why do we need an expletive in thetic sentences?
- Need to take into account the complex interaction of position, grammatical relations and information structure which is at play in a language where neither argument functions nor discourse functions are exclusively positionally licensed...

# CONCLUSIONS



## CONCLUSIONS

- LFG's separation of position and function, and the particular status of c-structure positions which follows from this, allows one to:
  - account for the connection between expletives and configurationality, as well as the relation with verbal agreement morphology
  - model the various ways in which different types of expletive are motivated (and, if desired, how they arise over time)

#### Outstanding issues:

- On the assumption that configurationality is gradient rather than binary (Nordlinger 1998; Snijders 2015; Booth 2021), how configurational does a language need to be in order to require expletives?
- How does one account for expletives in a language where neither argument or discourse functions are exclusively structurally licensed (e.g. Icelandic)
- For discourse expletives: where is the boundary between discourse marker and expletive (see e.g. work on Romance, Hinzelin 2009; Corr 2017)?

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## References I

- Abraham, Werner. 1993. Null subjects in the history of German: From IP to CP. Lingua 89(2-3). 117-142.
- Alsina, Alex. 1996. The role of argument structure in grammar: Evidence from Romance. Stanford, CA: CSLI publications.
- Austin, Peter & Joan Bresnan. 1996. Non-configurationality in Australian Aboriginal languages. *Natural Language & Linguistic Theory* 14(2). 215–268.
- Baker, Mark. 2001. The natures of nonconfigurationality. In Mark Baltin & Chris Collins (eds.), *Handbook of contemporary syntactic theory*, 407–438. Oxford: Blackwell.
- Bauer, Brigitte. 2000. Archaic syntax in Indo-European: the spread of transitivity in Latin and French. Berlin: de Gruyter.
- Beaver, David, Itamar Francez & Dmitry Levinson. 2005. Bad subject: (Non-) canonicality and NP distribution in existentials. In Efthymia Georgala & Jonathan Howell (eds.), *Proceedings of Semantics and Linguistic Theory XV*, 19–43. Ithaca, NY.
- Berman, Judith. 1999. Does German satisfy the Subject Condition? In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'99 Conference*, 1–19. Stanford, CA: CSLI Publications.
- Biberauer, Theresa. 2010. Semi null-subject languages, expletives and expletive *pro* reconsidered. In Theresa Biberauer, Anders Holmberg, Ian Roberts & Michelle Sheehan (eds.), *Parametric variation: Null subjects in minimalist theory*, 153–199. Cambridge: Cambridge University Press.
- Booth, Hannah. 2021. Revisiting the configurationality issue in Old Icelandic. Glossa: a journal of general linguistics 6(1).
- Booth, Hannah, Christin Schätzle, Kersti Börjars & Miriam Butt. 2017. Dative subjects and the rise of positional licensing in Icelandic. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'17 Conference*, 104–124. Stanford, CA: CSLI Publications.
- Börjars, Kersti, Rachel Nordlinger & Louisa Sadler. 2019. Lexical-functional grammar: An introduction. Cambridge: Cambridge University Press.

## REFERENCES II

- Börjars, Kersti & Nigel Vincent. 2005. Position vs. function in Scandinavian presentational constructions. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'05 Conference, University of Bergen*, 54–72. Standford, CA: CSLI Publications.
- Breckenridge, Janet. 1975. The post-cyclicity of es-insertion in German. In R. E. Grossman, L. J. San & T. Vance (eds.), Papers from the 11th Meeting of the Chicago Linguistic Society, 81–91. Chicago, Illinois: University of Chicago.
- Breivik, Leiv Egil. 1984. On the typological distinction between subject-prominence and topic-prominence. *Folia Linguistica Historica* 5(1). 3–24.
- Bresnan, Joan, Ash Asudeh, Ida Toivonen & Stephen Wechsler. 2015. Lexical-Functional Syntax, 2nd Edition. Oxford: Blackwell.
- Bresnan, Joan & Jonni M. Kanerva. 1989. Locative inversion in Chicheŵa: A case study of factorization in grammar. *Linguistic Inquiry* 1–50.
- Bresnan, Joan & Ron Kaplan. 1982. Lexical-Functional Grammar: A formal theory for grammatical representation. In Joan Bresnan (ed.), *The mental representation of grammatical relations*, 173–281. Cambridge, MA: The MIT Press.
- Bresnan, Joan & Sam A. Mchombo. 1987. Topic, pronoun, and agreement in Chicheŵa. Language 63(4). 741-782.
- Bresnan, Joan & Annie Zaenen. 1990. Deep unaccusativity in LFG. In Katarzyna Dziwirek, Patrick Farrell & Errapel Meijas-Bikandi (eds.), *Grammatical relations: A cross-theoretical perspective*, 45–57. Stanford, CA: CSLI Publications.
- Butt, Miriam, Farhat Jabeen & Tina Bögel. 2016. Verb cluster internal Wh-Phrases in Urdu: Prosody, syntax and semantics/pragmatics. *Linguistic Analysis* 40(3–4). 445–487.
- Butt, Miriam & Tracy Holloway King. 1996. Structural topic and focus without movement. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the 1st Annual LFG Conference*, Stanford, CA: CSLI Publications.

## REFERENCES III

- Butt, Miriam & Tracy Holloway King. 1997. Null elements in discourse structure. In Karumuri V. Subbarao (ed.), *Papers from the NULLS seminar*, 1–23. Delhi: Motilal Banarsidass.
- Camacho, José. 2013. Null subjects. Cambridge: Cambridge University Press.
- Corr, Alice. 2017. The grammaticalization of epistemicity in Ibero-Romance: alike processes, unlike outcomes. *Journal of Historical Linguistics* 7(1). 48–76.
- Dahl, Östen. 1990. Standard Average European as an exotic language. In Johannes Bechert, Giuliano Bernini & Claude Buridant (eds.), *Toward a typology of European languages*, 3–8. Berlin: de Gruyter.
- Dalrymple, Mary, John J. Lowe & Louise Mycock. 2019. The Oxford reference guide to Lexical Functional Grammar. Oxford: Oxford University Press.
- Dalrymple, Mary, Louise Mycock, Miriam Butt & Tracy Holloway King. 2011. The prosody-semantics interface. In *Proceedings of the lfg11 conference*, 173–193. CSLI Publications Stanford, CA.
- Dryer, Matthew S. 2007. Clause types, 224–275. Cambridge: Cambridge University Press 2nd edn.
- Faarlund, Jan Terje. 1990. Syntactic change: Toward a theory of historical syntax. Berlin: de Gruyter.
- Falk, Cecilia. 1993. Non-referential subjects and agreement in the history of Swedish. Lingua 89(2-3). 143–180.
- Fiorini, Matteo. 2021. Anchoring and word order in Basque: speaker-oriented and discourse-oriented foci. *Paper presented at the 50th Poznan Linguistic Meeting*.
- Frascarelli, Mara. 2010. Scope marking and focus in Somali. Linguistic Variation Yearbook 10(1). 78-116.

# REFERENCES IV

- Gast, Volker & Florian Haas. 2011. On the distribution of subject properties in formulaic presentationals of Germanic and Romance. In Andrej Malchukov & Anna Siewierska (eds.), *Impersonal constructions: a cross-linguistic perspective*, Amsterdam: John Benjamins.
- Gazdik, Anna & András Komlósy. 2011. On the syntax-discourse interface in Hungarian. In Miriam Butt & Tracy Holloway King (eds.), Proceedings of the LFG'11 Conference, Hong Kong University, 215–235. Stanford, CA: CSLI Publications. http://web.stanford.edu/group/cslipublications/cslipublications/LFG/16/papers/lfg11gazdikkomlosy.pdf.
- Haegeman, Liliane, Ciro Greco & Trang Phan. 2017. Expletives and speaker-related meaning. In Michelle Sheehan & Laura R. Bailey (eds.), Order and structure in syntax II: subjecthood and argument structure, 69–93. Berlin: Language Science Press.
- Haiman, John. 1971. Targets and syntactic change. The Hague: Mouton.
- Hale, Ken. 1982. Preliminary remarks on configurationality. In James Pustejovsky & Peter Sells (eds.), *Proceedings of the North Eastern Linguistics Society 12*, 86–96.
- Hale, Ken. 1983. Warlpiri and the grammar of non-configurational languages. Natural Language and Linguistic Theory 1. 5–47.
- Hinzelin, Marc-Olivier. 2009. Neuter pronouns in Ibero-Romance: Discourse reference, expletives and beyond. In G.A. Kaiser & E.-M. Remberger (eds.), *Proceedings of the workshop "Null-subjects, expletives, and locatives in Romance"*, 1–25.
- Holmberg, Anders & Urpo Nikanne. 2002. Expletives, subjects, and topics in Finnish. In Peter Svenonius (ed.), *Subjects, expletives, and the epp*, 71–106. Oxford: Oxford University Press.
- Horvath, Julia. 1997. The status of 'wh-expletives' and the partial wh-movement construction of Hungarian. *Natural Language & Linguistic Theory* 15(3). 509–572.

## REFERENCES V

- Jelinek, Eloise. 1984. Empty categories, case, and configurationality. Natural Language & Linguistic Theory 2(1). 39-76.
- Kaiser, Elsi. 2019. Word order patterns in generic 'zero person' constructions in Finnish: Insights from speech-act participants. Proceedings of the Linguistic Society of America 4(1), 53–1.
- Kibort, Anna. 2007. Extending the applicability of Lexical Mapping Theory. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'07 Conference, Standford University*, 250–270. Stanford, CA: CSLI Publications.
- King, Tracy Holloway. 1997. Focus domains and information-structure. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'97 Conference*. Stanford. CA: CSLI Publications.
- Kiss, Katalin É (ed.). 1995. Discourse configurational languages. Oxford: Oxford University Press.
- Kiss, Katalin É. 2001. Discourse configurationality. In M. Haspelmath, E. Koenig, W. Oesterreicher & W. Raible (eds.), *Language typology and language universals*, vol. 2, 1442–1455. Berlin: de Gruyter.
- Kiss, Katalin É. 2002. The EPP in a topic-prominent language. In Peter Svenonius (ed.), *Subjects, expletives, and the epp*, 107–124. Oxford: Oxford University Press.
- Kroeger, Paul. 1993. Phrase structure and grammatical relations in Tagalog. Stanford, CA: Stanford University dissertation.
- Lecarme, Jacqueline. 1999. Focus in Somali. In Georges Rebuschi & Laurice Tuller (eds.), *The grammar of focus*, 275–310. Amsterdam: John Benjamins.
- Lenerz, Jürgen. 1985. Zur Theorie syntaktischen Wandels: das expletive es in der Geschichte des Deutschen. In Werner Abraham (ed.), Erklärende Syntax des Deutschen, 99–136. Tübingen: Gunter Narr.

# REFERENCES VI

Levine, Robert & Detmar Meurers. 2006. Declarative models of syntax. In Keith Brown (ed.), *Encyclopedia of language and linguistics*,, vol. 3, 377–384. Oxford: Elsevier 2nd edn.

Maling, Joan. 1988. Variations on a theme: existential sentences in Swedish and Icelandic. *McGill Working Papers in Linguistics:* Special Issue on Comparative Germanic Syntax 6(1). 168–191.

McCawley, James D. 1968. Concerning the base component of a transformational grammar. Foundations of Language 4(3). 243–269.

Mereu, Lunella. 2009. Universals of information structure. *Information structure and its interfaces* 75–101.

Mohanan, Tara. 1994. Argument structure in Hindi. Stanford, CA: CSLI Publications.

Mycock, Louise. 2004. The wh-expletive construction. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the Ifg'04 conference*, 370–390. Stanford, CA: CSLI Publications.

Nordlinger, Rachel. 1998. Constructive case: Evidence from Australian languages. Stanford, CA: CSLI Publications.

Platzack, Christer. 1983. Existential sentences in English, German, Icelandic and Swedish. In F. Karlsson (ed.), *Papers from the 7th Scandinavian Conference of Linguistics*, 80–100. Department of General Linguistics, University of Helsinki.

Platzack, Christer. 1987. The Scandinavian languages and the null-subject parameter. *Natural Language & Linguistic Theory* 5(3). 377–401.

Polinsky, Maria. 2016. Deconstructing ergativity: Two types of ergative languages and their features. Oxford: Oxford University Press. Richards, Marc & Theresa Biberauer. 2005. Explaining Expl. In Marcel den Dikken & Christina Tortora (eds.), The Function of Function

Words and Functional Categories, 115–153. Amsterdam: John Benjamins.

Rizzi, Luigi. 1982. Issues in Italian syntax. The Hague: Mouton.

# REFERENCES VII

- Rizzi, Luigi. 1986. Null objects in Italian and the theory of pro. Linguistic Inquiry 17(3). 501-557.
- Rögnvaldsson, Eiríkur. 1983. Icelandic word order and bað-insertion. Working Papers in Scandinavian Syntax 8. 1–21.
- Rögnvaldsson, Eiríkur & Höskuldur Thráinsson. 1990. On Icelandic word order once more. In Joan Maling & Annie Zaenen (eds.), Syntax and Semantics: Modern Icelandic Syntax, 3–40. San Diego, CA: Academic Press.
- Saeed, John. 2004. The focus structure of Somali. RRG'2004 Book of Proceedings .
- von Seefranz-Montag, Ariane. 1983. Syntaktische Funktion und Wortstellungsveränderung: Die Entwicklung "subjektloser" Konstruktionen in einigen Sprachen. Leiden: Brill.
- Sells, Peter. 2005. The peripherality of the Icelandic expletive. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'05 Conference*, 408–428. Standford, CA: CSLI Publications.
- Sells, Peter. 2021. The view from declarative syntax. In Nicholas Allott, Terje Lohndal & Georges Rey (eds.), *A companion to Chomsky*, 243–266. Oxford: Wiley Blackwell.
- Sharma, Devyani. 2003. Discourse clitics and constructive morphology in Hindi. In Miriam Butt & Tracy Holloway King (eds.), Nominals inside and out, 59–85. Stanford, CA: CSLI Publications.
- Sigurðsson, Halldór Ármann. 2019. Topicality in Icelandic: Null arguments and narrative inversion. In Valéria Molnár, Verner Egerland & Susanne Winkler (eds.), *Architecture of topic*, 249–272. Berlin: de Gruyter.
- Sigurðsson, Halldór Ármann. 2007. Argument features, clausal structure and the computation. In Tammoy Bhattachayra, Eric Reuland & Giorgos Spathas (eds.), *Argument Structure*, 121–158. Amsterdam: John Benjamins.
- Simpson, Jane. 1991. Warlpiri morpho-syntax: A lexicalist approach. Dordrecht: Kluwer.

# REFERENCES VIII

Snijders, Liselotte. 2015. The nature of configurationality in LFG. Oxford: University of Oxford dissertation.

Speas, Margaret. 1990. Phrase structure in natural language. Dordrecht: Kluwer.

Svolacchia, Marco, Lunella Mereu & Annarita Puglielli. 1995. Aspects of discourse configurationality in Somali. In Katalin É Kiss (ed.), Discourse configurational languages, 65–98. Oxford: Oxford University Press.

Szendri, Kriszta. 2004. A stress-based approach to climbing. Verb clusters. A study of Hungarian, German and Dutch, edited by Katalin É. Kiss & Henk van Riemsdijk 205–233.

Thráinsson, Höskuldur. 1979. On Complementation in Icelandic. New York: Garland.

Thráinsson, Höskuldur. 2007. The Syntax of Icelandic. Cambridge: Cambridge University Press.

Ortiz de Urbina, Jon. 1994. Verb-initial patterns in basque and breton. *Lingua* 94(2-3). 125–153.

Ortiz de Urbina, Jon. 1995. Residual verb second and verb first in Basque. In Katalin É Kiss (ed.), *Discourse configurational languages*, 99–121. Oxford: Oxford University Press.

Vilkuna, Maria. 1989. Free word order in Finnish: Its syntax and discourse functions. Helsinki: Suomalaisen Kirjallisuuden Seura [Finnish Literature Society].

Vilkuna, Maria. 1995. Discourse configurationality in Finnish. In Katalin É Kiss (ed.), *Discourse configurational languages*, 244–268. Oxford: Oxford University Press.

Wälchli, Bernhard. 2011. The Circum-Baltic languages. In Bernd Kortmann & Johan van der Auwera (eds.), *The languages and linguistics of Europe: A comprehensive guide*, vol. 1, 325–340. Berlin: de Gruyter.

Woolford, Ellen. 1991. VP-internal subjects in VSO and nonconfigurational languages. Linguistic Inquiry 22(3). 503-540.

## REFERENCES IX

Zaenen, Annie. 1983. On syntactic binding. Linguistic Inquiry 14(3). 469-504.

Zaenen, Annie, Elisabet Engdahl & Joan Maling. 2017. Subject properties in presentational sentences in Icelandic and Swedish. In Victoria Rosén & Koenraad de Smedt (eds.), *The very model of a modern linguist — in honor of Helge Dyvik*, 260–281. Bergen: University of Bergen.

Zaenen, Annie, Joan Maling & Höskurdur Thráinsson. 1985. Case and grammatical functions: The Icelandic passive. *Natural Language and Linguistic Theory* 3(4). 441–483.