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# **Connecting language change and non- language mechanisms: English and German speakers' use of existential constructions against the backdrop of cognitive grammaticalization theory**

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12<sup>th</sup> International Cognitive Linguistics Conference

University of Alberta, Edmonton

June 27, 2013



## Introduction and motivation

Grammaticalization is generally viewed as the creation of new constructions (and their further development).

(Bybee 2002, 2008; Diwald 2006; Fischer 2000, 2007; Heine, Claudi and Hünemeyer 1991, Hopper and Traugott 1993; Lehmann 1982)

Recent years have seen a particular increase in the study of grammaticalization as it derives from more fundamental principles of human cognition.

(Fischer 2008: 338)

External explanations are derived from independently motivated principles, which have to do with human preadaptations, dispositions and propensities.

(e.g. Baayen 1993; Beckner and Bybee 2009; Bybee 2002, 2003, 2008; Bybee and Beckner fc., Ellis 2002; Fischer 2000, 2007; Heine 1994; Johnson 2001; Lightfoot 1991, 1999)



## (Central) existential *there*-construction in Present Day English

(A) Bare existential *there*-construction (ETC)

(1) **There was** indeed a Miss Counihan (*Murphy*, 2003 [1959], 6)

(B) Locative ETC

(2) The nearest place he could think of was Lincoln's Inn Fields. [...] **There was** grass and **there were** plane trees. (*Murphy*, 2003 [1959], 79)

(C) Enumerative ETC

(3) **There's** barbarity, insurrection, internecine feud.  
(Pynchon's *V*, 2000 [1961], 170)



## Existential constructions in Present Day German

### A. *Es-gibt* construction

(4) dann **gab es** einen dumpfen Laut  
(*The Great Gatsby*, 1974 [1953], 16)  
‘then there was a boum’

### B. Existential *da*-construction (EDC)

(5) **da war** R., ein Engländer (*Down and Out in Paris and London*, 1978, 12)  
‘there was R., an Englishman’

### C. Posture verbs

(6) in der Nähe **befand** sich ein russisches Restaurant (*Down and Out in Paris and London*, 1978, 39)  
‘there was a Russian restaurant nearby’  
(7) auf der Anrichte **stand** ein Teller Würste (*Portrait of an Artist*, 2002 [1968], 409)  
‘on the dresser there was a plate of sausages’

### D. Motion verbs

(8) es **weht** ein Wind (*White Noise*, 2001 [1997], 158)  
‘there’s a wind’  
(9) Abordnungen **waren in Aktion getreten** (*A Passage to India*, 2001, 115)  
‘there had been deputations’

### E. Perception verbs

(10) aus meines Nachbarn Haus **hörte** man Musik (*The Great Gatsby*, 1974 [1953], 45)  
‘there was music from my neighbour’s house’  
(11) Es wird nichts von dem Kuddelmudel zu **sehen** sein (*A Passage to India*, 2001, 83)  
‘there’ll be no muddle’



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## Research question

How much of what seems to happen in the development of existentials is really grammaticalization or linguistics at all, and how much is domain-general?



## Extension of scope as emergent from (pragmatic) inferencing

### **Grammaticalization theory**

Extension refers to the rise of new meanings when linguistic expressions are extended to new contexts and pragmatic properties of the context become associated with the linguistic form. This still offers the potential for ambiguity that allows for the structure to continue to be analyzed as before, and at the same time for a new analysis to evolve, and then to coexist with the earlier analysis. (Bybee 2003; Fischer 2000; Heine, Claudi, and Hünemeyer 1991 Hopper and Traugott 2003: 52)



## Extension of scope as emergent from (pragmatic) inferencing

### Old English

(12) ...þæt hē dōgora gehwām  
drēam gehyrde  
hlūdne **in healle; þær wæs**  
hearpan swēg,  
swutol sang scopes. (*Beowulf* ed.  
Jack, 86–90)  
‘... that he each of the days  
heard loud joy  
**in the hall; there was** the  
sound of a harp, the clear song  
of a poet.’

### Old High German

(13) Therero árabeito thárbent io  
ginóto  
thie híar thes bigínnent, **zi**  
**hímilriche** thíngent. [...]  
**Thar ist** sáng sconaz joh mannon  
séltzanaz (*Otfrid* ed. Erdmann 308, 161–163)  
‘Against such entanglement only  
those are immune  
who make the effort to turn towards  
**Heaven.** [...]  
**There is** a wonderful, to humankind  
most miraculous chant’





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(14) **Ðær wæs þa sum eald man** in Hierusalem in þære byrig in þa ilcan tid se wæs haten Simeon. (Homiliy XVII *De Purificatione Sanctae Mariae* ed. Scragg 281, 12)

‘There was then a certain old man in the town of Jerusalem who was called Simeon’

### Old High German

(15) XV. DE OBVIATIONE ET|  
BENEDICTIONE SYMEONIS.

**Thar was ein mán alter**, zi sálidon gizálder;  
er was thíononti thár góte filu mánag jar. (*Otfrid* ed. Erdmann 34, 1–2)  
‘Once upon a time there was an old man...’



## Extension of scope as emergent from (pragmatic) inferencing

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Extension refers to the rise of new meanings when linguistic expressions are extended to new contexts and pragmatic properties of the context become associated with the linguistic form. This still offers the potential for ambiguity that allows for the structure to continue to be analyzed as before, and at the same time for a new analysis to evolve, and then to coexist with the earlier analysis. (Bybee 2003; Fischer 2000; Heine, Claudi, and Hünemeyer 1991 Hopper and Traugott 2003: 52)

### Cognitive science/Psycholing.

A pragmatic inference changes the meaning and function of the originally presented information, as hearers seem to automatically make elaborations, piecing together fragments of remembered events to arrive at a seemingly coherent and complete representation (Chan & McDermott 2006; McDermott & Chan 2006).

If the inferences from a particular construction are repeated, they become associated with that construction conventionally and thus become part of the meaning of that construction.



## Desemanticization as emergent from the influence of frequency

### Old English

(16) Ða þe he to þære byrig com,  
þa nolde se buruhwaru bugan, ac  
heoldon mid fullon wige ongear, for  
þan **þær wæs** inne se cyning  
Æpelred & Þurcyl mid him.

(*ASChronicle*, *MS D* ed. Cubbin 1013, 58)

‘When he came to the town the  
inhabitants would not surrender, but  
held out against him with great  
battle, because **there**  
**was** inside King Aethelred and with  
him Thurkil.’

### Old High German

(17) Draco iste quem formasti ad  
illedendum ei.

[Diz mére ist michel] [...] **Dâr ist**  
inne díser zâligo draco (*Psalter* ed.  
Tax 386, 2–4)

‘**There is** in there this dangerous  
dragon’



## Desemanticization as emergent from the influence of frequency

### Grammaticalization theory

Desemanticization occurs when a grammaticalizing construction gains in frequency, is used in redundant contexts, and spreads to new contexts. (Baayen 1993; Beckner & Bybee fc.; Bybee 2003; Fischer 2008; Hopper and Traugott 2003)

**Table 1.** Distribution of OE existential constructions between ETCs and existential constructions with BE (partly adopted from Pfenninger 2013) (total word count 321,286).

Texts*	Period	Word count	Exist. BE	ETCs	Total	Frequency of ETCs per 10,000 words
<i>Chronicles</i>	c.890–1050	40,641	37 (88.1%)	5 (11.9%)	42 (100%)	1.23
<i>Orosius</i>	c.900–950	51,020	86 (80.37%)	21 (19.63%)	107 (100%)	4.12
<i>Exeter Book</i>	c.965–975	46,543	37 (90.24%)	4 (9.76%)	41 (100%)	0.86
<i>Blickling</i>	c.990–1100	42,506	47 (78.33%)	13 (21.67%)	60 (100%)	3.06
<i>Ælfric</i>	c.1000	100,193	150 (79.37%)	39 (20.63%)	189 (100%)	3.87
<i>Bede</i>	c.1050–1099	40,383	111 (99.11%)	1 (0.89%)	112 (100%)	0.25

\* We used the online versions of these texts from the Labyrinth Library (Georgetown University).

**Table 2.** Distribution of OHG existential constructions between EDCs and existential constructions with SEIN ‘be’ (total word count 342,335).

Texts*	Period	Word count	Exist. SEIN	EDCs	Total	Frequency of EDCs per 10,000 words
<i>Isidor</i>		5,029	6 (85.71%)	1 (14.29%)	7 (100%)	1.99
<i>Tatian</i>		48,406	22 (88%)	3 (22%)	25 (100%)	0.62
<i>Otfrids Evangelienbuch</i>		72,012	52 (81.25%)	12 (18.75%)	64 (100%)	1.67
<i>Notker’s Psalter</i>		188,281	94 (89.52%)	11 (10.48%)	105 (100%)	0.58
Miscellaneous**		28,607	12 (85.71%)	2 (14.29%)	14 (100%)	1.05

\* We used the online versions of these texts from the TITUS (Thesaurus Indogermanischer Text- und Sprachmaterialien) corpus.

\*\* This refers to the text collection of minor OHG monuments that is available from the TITUS (Thesaurus Indogermanischer Text- und Sprachmaterialien) corpus.

( $\chi^2=19.0$ ,  $df=1$ ,  $p<0.001$ )



**Table 3.** The semantics of OE *pæ̃r* in [*there*–BE–subject-NP].

Period and text	Word count	locative	existential	Total
Ælfric	100,193	36 (48%)	39 (52%)	75 (100%)
Bede	40,383	4 (80%)	1 (20%)	5 (100%)
Blickling	42,506	11 (45.83%)	13 (54.17%)	24 (100%)
Chronicles	40,641	14 (73.68%)	5 (26.32%)	19 (100%)
Exeter Book	46,543	12 (75%)	4 (25%)	16 (100%)
Orosius	51,020	22 (51.16%)	21 (48.84%)	43 (100%)





**Table 4.** The semantics of OHG *thâr* in [*da*–SEIN–subject-NP].

Period and text	Word count	locative	existential	Total
Isidor	5,029	2 (66.67%)	1 (33.33%)	3 (100%)
Tatian	48,406	9 (75%)	3 (25%)	12 (100%)
Otfrids	72,012	21 (63.64%)	12 (36.36%)	33 (100%)
Evangelienbuch				
Notker's Psalter	188,281	28 (71.79%)	11 (28.21%)	39 (100%)
Miscellaneous	28,607	16 (88.89%)	2 (11.11%)	18 (100%)



## Desemanticization as emergent from the influence of frequency

### Grammaticalization theory

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### Cognitive science/Psycholing.

From a cognitive perspective, the main idea is that there is some “rapid devaluation through overuse” (Los 2000: 271).

Habituation is a decline in the tendency to respond to stimuli that have become familiar due to repeated or persistent exposure. (Haiman 1994, 1998; see also Bybee 1995, 2000, 2003; Ellis 2002).

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## Structural reanalysis (loss of constituent structure) as emergent from chunking

### Grammaticalization theory

Elements in constructions that are grammaticalizing become more tightly fused together and the internal constituent structure of the construction tends to reduce.

(Beckner & Bybee 2009; Bybee 2002; Bybee and Beckner submitted; Ellis 1996, 2002)

Due to the continued function of the sequence [*there*–BE–subject-NP] to introduce a new or surprising subject, the ETC has become a chunk.



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### Cognitive science/Psycholing.

Frequency of use plays an important role in chunking (see, e.g., Ellis 1996, 2002)

Process of automatization of frequently-occurring sequences of linguistic elements (Bybee 2002; Boyland 1996; Fischer 2007; Haiman 1994): each time the sequence is processed as a unit, its sequential cohesion increases: “[i]tems that are used together fuse together” (Bybee 2003: 112)

→ loss of compositionality (Ellis 2002)

→ loss of analyzability (Langacker 1987)

**Table 5.** Distribution of ME existential constructions between ETCs and existential constructions with BE (total word count 465,632).

Texts*	Period	Word count	Exist. BE without <i>there</i>	Exist. BE with <i>there</i>	ETCs [ <i>there</i> – BE-NP]	Total	Frequency of ETCs per 10,000 words
<i>Peterborough Chronicle</i>	c.1150	6,757	11 (42.31%)	13 (50.00%)	2 (7.69%)	26	2.96
<i>Vices and Virtues</i>	c.1200	27,677	19 (59.38%)	8 (25.00%)	5 (15.63%)	32	1.81
<i>Lambeth Homilies</i>	a.1225	27,211	53 (74.65%)	10 (14.08%)	8 (11.27%)	71	2.94
<i>Katherine Group</i>	c.1225	36,184	26 (47.27%)	15 (27.27%)	14 (25.45%)	55	3.87
<i>Ancrene Riwe</i>	c.1230	63,790	49 (51.04%)	29 (30.21%)	18 (18.75%)	96	2.82
<i>Ayenbite of Inwyte</i>	1340	45,944	32 (26.23%)	10 (8.20%)	80 (65.57%)	122	17.41
<i>Earliest Prose Psalter</i>	c.1350	44,521	2 (5.71%)	4 (11.43%)	29 (82.86%)	35	6.51
<i>Chaucer's Boethius</i>	c.1380	10,415	3 (10.34%)	0 (0.00%)	26 (89.66%)	29	24.96
<i>Chaucer's Parson's Tale</i>	c.1390	30,416	2 (3.33%)	9 (15.00%)	49 (81.67%)	60	16.11
<i>Wycliffite Sermons</i>	c.1400	56,402	4 (6.56%)	3 (4.92%)	54 (88.52%)	61	9.57
<i>Mandeville's Travels</i>	c.1400	49,690	1 (0.43%)	97 (41.63%)	135 (57.94%)	233	27.17
<i>Malory's Morte Darthur</i>	1470	57,775	5 (5.26%)	17 (17.89%)	73 (76.84%)	95	12.64
<i>Caxton's History of Reynard the Fox</i>	1481	8,850	1 (4.17%)	7 (29.17%)	16 (66.67%)	24	18.08

\* The texts under investigation were accessed through the 2<sup>nd</sup> edition of the *Penn Parsed Corpus of Middle English* (PPCME2), where ETCs are tagged 'EX'.



**Table 6.** Distribution of MHG existential constructions between EDCs and existential constructions with SEIN ‘be’ (total word count 468,734).

Texts*	Period	Word count	Exist. SEIN without <i>da</i>	Exist. SEIN with <i>da</i>	EDCs [ <i>da</i> –SEIN–NP]	Total	Frequency of EDCs per 10,000 words
<i>Erec</i> (Hartmann von Aue)	c.1190	50,301	6 (18.75%)	8 (22.86%)	21 (69.62%)	35 (100%)	2.39
<i>Tristan</i> (Ulrich v. Türheim)	c.1210	23,614	4 (22.22%)	5 (27.78%)	9 (50%)	18 (100%)	1.69
<i>Wolfram von Eschenbach</i> (Minnesangs Frühling)	c.1210 –1220	2,248	1 (50%)	1 (50%)	0	2 (100%)	0
<i>Der guote Gêrhart</i> (Rudolf von Ems)	c.1220 –1225	41,667	3 (15.79%)	5 (26.32%)	11 (57.89%)	19 (100%)	2.64
<i>Kudrun</i>	c.1230 –1240	71,621	5 (20.83%)	5 (20.83%)	14 (58.33%)	24 (100%)	1.95
<i>Engelhard</i> (Konrad von Würzburg)	c.1250	36,148	4 (40%)	1 (10%)	5 (50%)	10 (100%)	1.38
<i>Helmbrecht</i> (Wernher der Gartenaere)	c.1280	11,735	1 (25%)	0	3 (75%)	4 (100%)	2.56
<i>Nibelungenlied</i>	c.1180 –1210	81,985	5 (20.83%)	0	19 (79.17%)	24 (100%)	2.32
<i>Der Ritter von Staufenberg</i> (Egenolf v. Staufenberg)	c.1310	8,058	0	1 (50%)	1 (50%)	2 (100%)	1.24
<i>Oswald Lieder</i> (Oswald v. Wolkenstein)	c.1425 –1450	52,001	2 (33.33%)	1 (16.67%)	3 (50%)	6 (100%)	0.58
Miscellaneous prose (ABG, AC1-3, GSP, ECK, FAN, KDO, NST, VUA)	1350– 1490	89,356	21 (40.38%)	5 (9.62%)	26 (50%)	52 (100%)	2.91

\* The texts under investigation were accessed on the electronic Middle-High German Conceptual Database of the University of Salzburg (<http://www.mhdbdb.sbg.ac.at:8000/>)

( $\chi^2=3.88$ ,  $df=1$ ,  $p=0.049$ )



## Syntactic reanalysis (decategorialization) as emergent from analogical thinking

### Grammaticalization theory

Decategorialization = change from a more open categorical system to a closer one (Hopper 1991; Hopper & Traugott 2003)

adverb *there* > unstressed, non-deictic and non-referring element functioning as the syntactic (expletive) subject (first defined by Jespersen 1924: 155; Lakoff 1987)

adverb *da* > quasi-expletive (topic) (Lenerz 1992; see also Newman 1997)



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### Cognitive science/Psycholing.

In domain-general terms, analogy is the process of recognizing structural similarities in two domains, despite differences in the objects in those domains. (Bybee & Beckner fc.; Fischer 2000, 2007; Gentner 1983)

By analogy, *there* was gradually categorized as a syntactic subject when it was part of the ETC.





## Some concluding thoughts

- On the basis of the cognitive mechanisms and processes, it is possible to account for the fact that the English and German grammaticalization pathways ran different courses with regard to existential constructions with locative adverbs.
- Grammaticalization may follow its pre-ordained path by means of inferencing, chunking, and analogical thinking, or, in the presence of strong counterfactors, may be stopped at any way-station on its path.
- Each station in the series is dependent on synchronic circumstances and determines the direction of the change afresh (see Fischer 2000).



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**Thank you!**

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