On the history of permissive *get* in American English: New quantitative evidence

Florent Perek (University of Birmingham) Martin Hilpert (Université de Neuchâtel)

English get – a linguistic Swiss Army knife

- lexical meaning of 'receiving'
 - Look what I got for my birthday!
- the *get*-passive
 - Nobody move, nobody get hurt.
- the *get*-causative
 - Can I get you to deliver a message?
- inchoative get
 - It gets worse and worse.
- idiomatic uses
 - I get up at seven, I don't get it.

Permissive get

- (1) In the movies the prisoners always get to make one phone call.
- (2) This is a big day for the guards. They get to remind us who's boss.
- (3) I want to be a Marine. They get to wear swords, right?
- modal use of *get* that expresses permission (*may, can*)
 - a permitted action
 - They get to make one phone call. = 'They are allowed to make one phone call.'
 - an opportunity
 - They get to remind us. = 'They have the opportunity to remind us.'
 - a privilege
 - They get to wear swords. = 'They have the privilege of wearing swords.'

Questions

- When and how did permissive *get* emerge?
- What has been said about permissive get in earlier work?
- Can we use corpus data and distributional semantics to better understand how the construction developed?

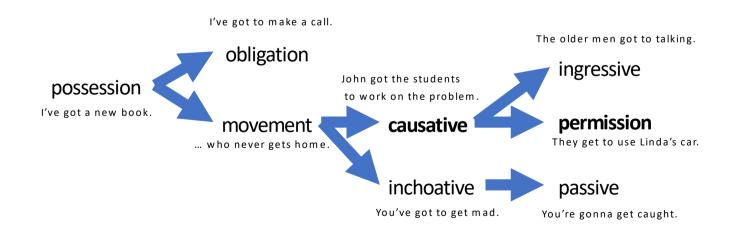
Overview

- Two conflicting accounts of permissive *get*:
 - The causative-to-permissive pathway (Gronemeyer 1999)
 - The acquisitive-to-permissive pathway (Van der Auwera et al. 2009)
- An alternative hypothesis:
 - The inchoative-to-permissive pathway
- Data
 - Permissive get in the COHA
- Distributional evidence
 - Developments in the semantic spaces of inchoative *get* and permissive *get*
- Conclusions

Two conflicting accounts

The causative-to-permissive pathway

- Gronemeyer (1999: 1):
 - «Using diachronic data, I show that possession leads to movement as well as stative uses (possession and obligation), movement develops into the causative and inchoative, from which the passive develops, and the infinitival causative gives rise to permission and ingressive aspect.»



The causative-to-permissive pathway

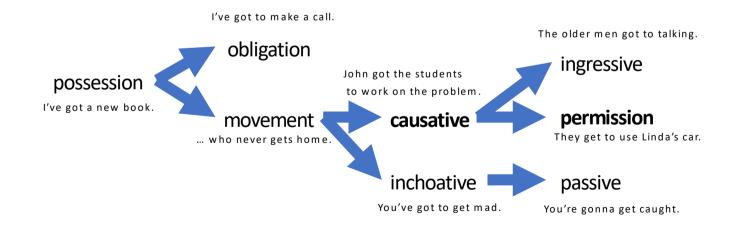
4.7.1 get to be

The precursor to both the permission and ingressive constructions is first found around 1600, as in (86) and (87):

- (86) By what meanes got's(t) thou to be releas'd. (Shakespeare, Henry VI. 1591. (OED get 32a))
 'by what means you got released'
- (87) He was once presented for perjury, but he got to be a chaplain in one of the king's ships (Burnet, Burnet's History of my own Time. Part I: The reign of Charles the Second. 1703)

Gronemeyer (1999: 30):

causative: *I got him to be a chaplain.* permissive: *He got to be a chaplain.*



The acquisitive-to-permissive pathway

• Van der Auwera et al. (2009: 284):

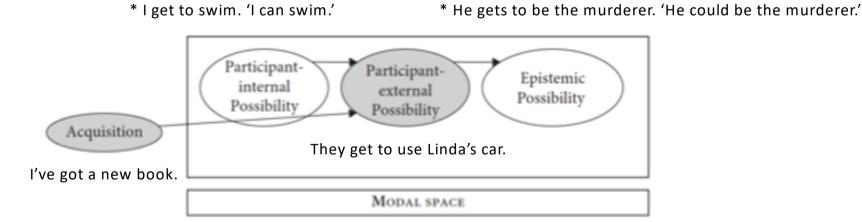
«Gronemeyer (1999: 30-32, 35) actually claims that what she calls 'permissive' get derives from 'causative' get, illustrated in (23), a use which definitely refers to a participant-internal, causative force.

(23) John got me to clean his car.

This is not very plausible though.»

The acquisitive-to-permissive pathway

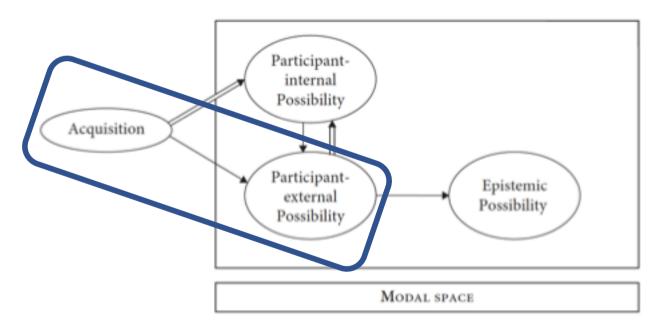
- Van der Auwera et al. (2009: 272):
 - «get lends itself easily to to the expression of [...] permission, and [...] it is
 plausible to relate this usage diachronically to a lexical verb meaning
 'acquire'.»



Map 7. From acquisition to participant-external possibility

The acquisitive-to-permissive pathway

Cross-linguistic data shows robust evidence for acquisition >> permission.



Map 10. The bidirectionality between participant-internal and participant-external possibility

An alternative hypothesis

The inchoative-to-permissive pathway

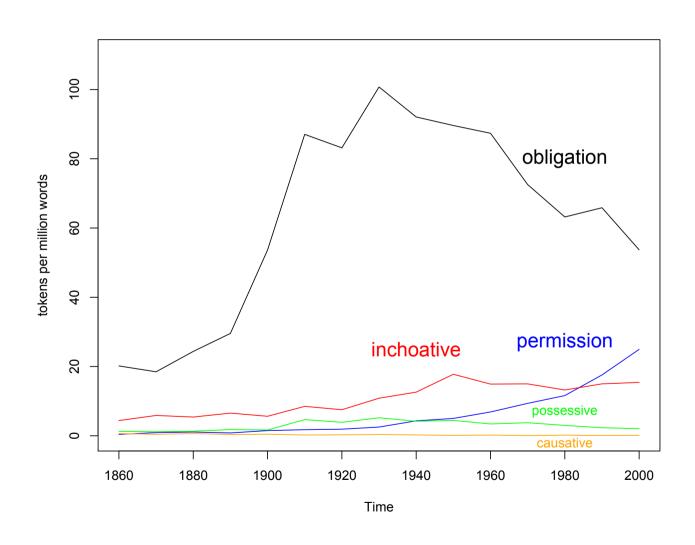
- A central meaning of get: change of state, onset of a new activity or state of affairs
 - It gets worse and worse.
 - I got into the habit.
 - You're getting to be a big girl now.
- «Privileged» inchoatives
 - I guess we won't get to see Colonel Morrison after all. (1910s)
 - Some day she'd get to be an editor herself. (1930s)
 - Oh thank you and you'll get to meet our new minister then sure! (1900s)
- Bridging contexts between change of state and permission:
 - verbalized message: a change of state occurs
 - implicature: the change of state was granted by some authority

Data from the COHA

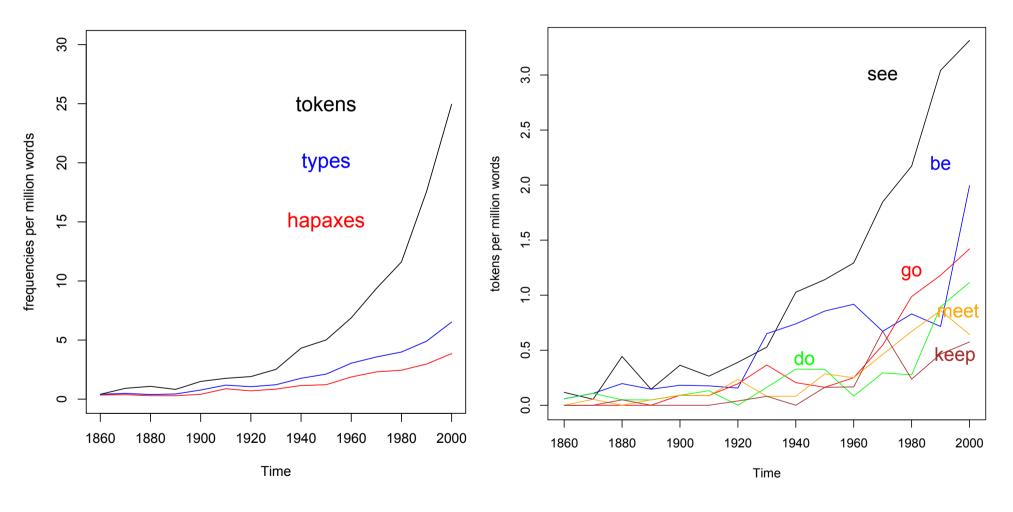
data

- Exhaustive retrieval of [get] + to + Vinf (n = 31'316)
- Annotation in terms of five semantic categories
 - permission
 - Prisoners get to make one phone call.
 - obligation
 - I got to leave.
 - causative
 - Who did you get to confess?
 - possession
 - What have I got to be ashamed of?
 - inchoative
 - You're getting to be a big girl now.
- Identification of the verb in the infinitive

frequency developments



permissive get



Distributional evidence

Distributional evidence

- Hypothesis: permissive "get to V" derives from secondary grammaticalization of inchoative "get to V"
- Two predictions from the literature:
 - Lexical persistence (Hopper 1991): grammaticalized constructions retain traces of their lexical history (especially initially)
 - Host-class expansion (Himmelmann 2004): grammaticalized constructions gradually expand the range of their lexical fillers
- Do the two constructions collocate with similar verb meanings?
- To what extent does permissive get emancipate itself from inchoative get (if ever)?

Distributional semantic plots

- Can be examined with distributional semantic plots (Perek 2014; 2016; 2018, Hilpert & Perek 2015)
- Visual representation of the semantic areas occupied by the lexical distribution of a construction
- Based on distributional semantics to capture similarity between word meanings

Distributional semantics

"You shall know a word by the company it keeps" Firth (1957: 11)

- Words that occur in similar contexts tend to have related meanings (Miller & Charles 1991)
- Therefore, a way to characterize the meaning of words is through their distribution in large corpora
- Semantic similarity is quantified by similarity in distribution
- In particular, the frequent collocates of words in a large corpus

Sentences from the COCA corpus:

```
the pizzeria for a while, drinking a beer at a table
hell, I'd meet you, drink a glass of beer or
books. She changed her dress, drank a glass of cold water
Willie picks up his cup, drinks some coffee, and leaves with

men picked up their beers, sipped them, and put them back
to trust his intuition. She sipped from the champagne glass and
food itself. Even when he sipped his cold beer, it was
Emily was no different. Kate sipped from her water bottle, then
```

```
the pizzeria for a while, drinking a beer at a table
hell, I'd meet you, drink a glass of beer or
books. She changed her dress, drank a glass of cold water
Willie picks up his cup, drinks some coffee, and leaves with
men picked up their beers, sipped them, and put them back
to trust his intuition. She sipped from the champagne glass and
food itself. Even when he sipped his cold beer, it was
Emily was no different. Kate sipped from her water bottle, then
```

Beverages

```
the pizzeria for a while, drinking a beer at a table
hell, I'd meet you, drink a glass of beer or
books. She changed her dress, drank a glass of cold water
Willie picks up his cup, drinks some coffee, and leaves with
men picked up their beers, sipped them, and put them back
to trust his intuition. She sipped from the champagne glass and
food itself. Even when he sipped his cold beer, it was
Emily was no different. Kate sipped from her water bottle, then
```

Beverages

Containers for beverages

```
the pizzeria for a while, drinking a beer at a table
hell, I'd meet you, drink a glass of beer or
books. She changed her dress, drank a glass of cold water
Willie picks up his cup, drinks some coffee, and leaves with
men picked up their beers, sipped them, and put them back
to trust his intuition. She sipped from the champagne glass and
food itself. Even when he sipped his cold beer, it was
Emily was no different. Kate sipped from her water bottle, then
```

Beverages

Containers for beverages

Drinking and dining

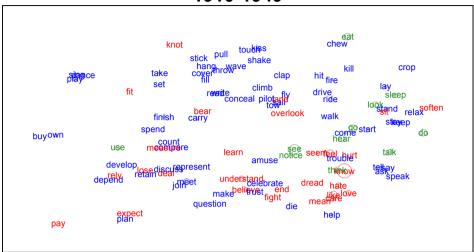
Distributional semantics

- Co-occurrence data for all verbs extracted from COHA (+/-2 words window)
- Semantic distance between words is measured by the distance between their set of collocates (cosine distance)
- Pairwise distances between words are used to position them in a 2dimensional plot (MDS, t-SNE)

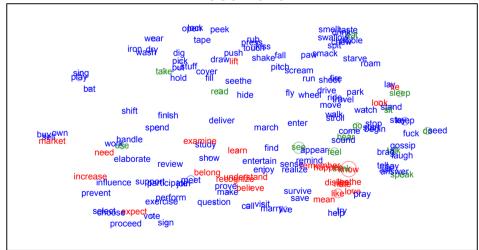
1860-1909

eagarnish dress shrink touch roll take plance drive look finish hear usesupply trace speak depend lice love swear care wish help accept

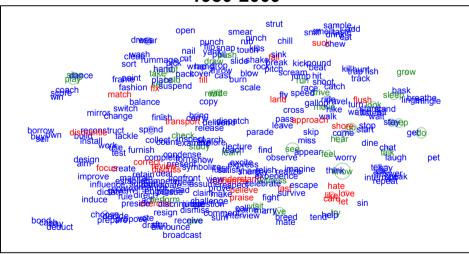
1910-1949



1950-1979



1980-2009



permissive-only inchoative-only both

Distributional semantic plots

- The two uses occupy the same semantic areas in early periods
 => Lexical persistence
- The semantic domain of permissive get expands into different areas over time
 - => Host-class expansion
- But: mere casual observation; how can we measure this?
- Idea: quantifying how similarly the same semantic areas are populated

Partitioning the semantic space

- How to partition the distributional semantic space into areas?
- Hierarchical clustering: the 389 verbs found in inchoative and/or permissive get are sorted according to semantic similarity
- 12 clusters identified as the "best" clustering solution (elbow method); correspond to 12 semantic areas
- NB: similar results with different numbers of clusters around 12

Examples of verb clusters

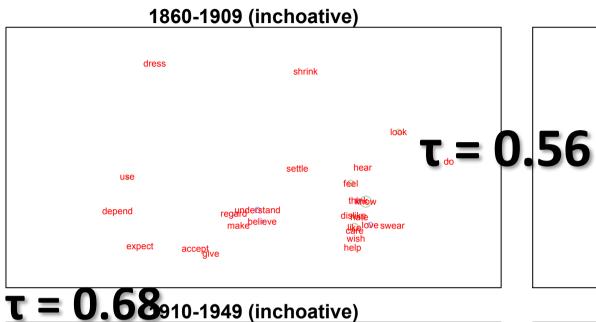
- Cluster 1: speech and sound say, tell, ask, hear, speak, play, answer, laugh, sing, sound, repeat, etc.
- Cluster 3: emotions and cognition know, think, love, remember, prove, enjoy, express, hate, hurt, trouble, entertain, excite, amuse, dread, dislike, sin, relish, loathe, etc.
- Cluster 5: food eat, drink, swallow, taste, suck, chew, sniff, nibble, sample, garnish, smell, etc.
- Cluster 9: manipulation and force turn, open, throw, wear, shake, pull, drop, pick, touch, lift, push, hit, beat, etc.

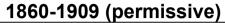
Similarity between distributions

- Are the same areas populated in the same way by the two constructions?
- Verbs in each group are counted in each period and construction E.g., permissive *get* in period 1 (1860-1909):

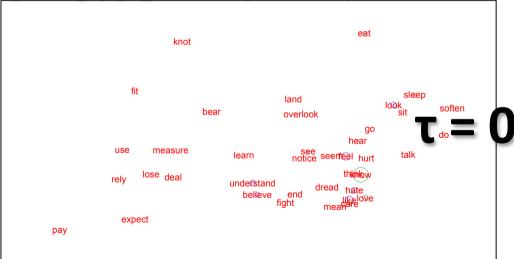
Group 1	Group 2	Group 3	•••	Group 12
4	3	2		0

- Correlations (Kendall's tau) can be calculated between sets of counts
 - To measure similarity between the distribution of two constructions at different points in time
 - To quantify change in one construction at different points in time

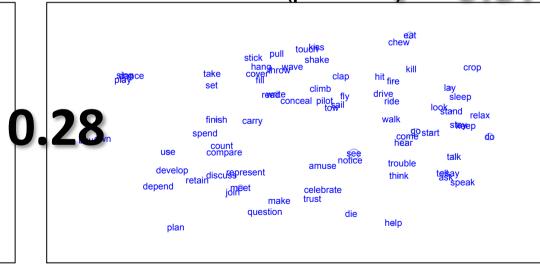


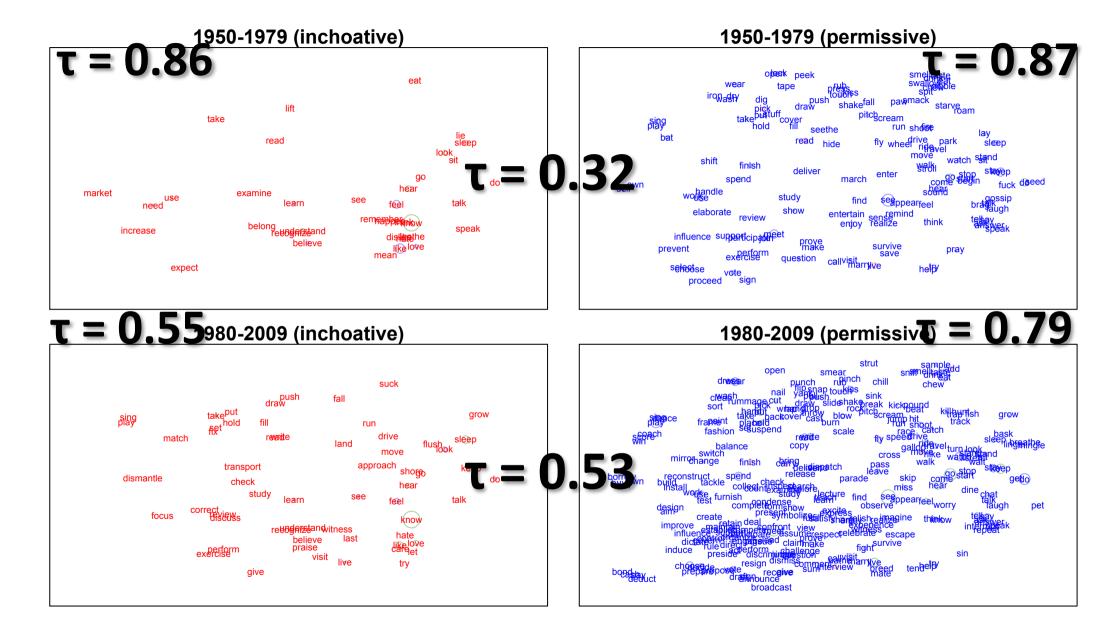






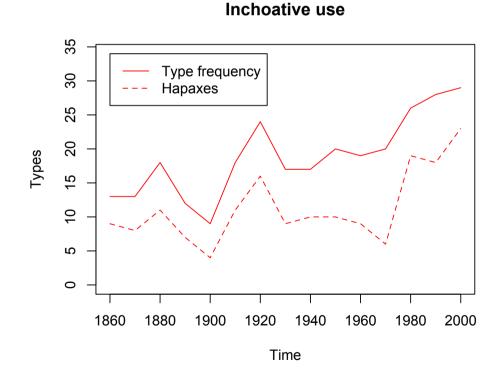
1910-1949 (permissiv**a = 0.57**





Summary

- Decrease in similarity between inchoative and permissive get
- Less change in inchoative get than permissive get
- Inchoative get regains more type in the last period and becomes more similar to permissive get



Conclusions

Conclusions

- Inchoative get is a plausible source for the grammaticalization of permissive get
- Bridging contexts are attested between the two uses
- Distributional evidence portrays a typical trajectory of grammaticalization
- New method to compare the semantic spread of constructions, both between constructions and in the same construction over time

References

Firth, J.R. (1957). A synopsis of linguistic theory 1930-1955. In *Studies in linguistic analysis (Special volume of the Philological Society)*, 1–32. Oxford: Blackwell.

Gronemeyer, C. (1999). On deriving complex polysemy: The grammaticalization of get. English Language and Linguistics 3. 1–39.

Hilpert, M. & Perek, F. (2015). Meaning change in a petri dish: Constructions, semantic vector spaces, and motion charts. *Linguistics Vanquard* 1(1).

Himmelmann, N. (2004). Lexicalization and grammaticization: Opposite or orthogonal? In Bisang, W., Himmelmann, N. P., & Wiemer, B. (eds.), What Makes Grammaticalization: A look from its components and its fringes (pp. 21–42). Berlin: Mouton de Gruyter.

Hopper, P. (1991). On some principles of grammaticalization. In E. C. Traugott & B. Heine (eds.), *Approaches to Grammaticalization*, Vol. 1, 17–35. Amsterdam: John Benjamins.

Miller, G. & Charles, W. (1991). Contextual correlates of semantic similarity. Language and Cognitive Processes 6(1), 1-28.

Perek, F. (2014). Vector spaces for historical linguistics: Using distributional semantics to study syntactic productivity in diachrony. In Proceedings of the 52nd Annual Meeting of the Association for Computational Linguistics, Baltimore, Maryland USA, June 23-25 2014 (pp. 309-314).

Perek, F. (2016). Using distributional semantics to study syntactic productivity in diachrony: A case study. *Linguistics* 54(1): 149–188. Perek, F. (2018). Recent change in the productivity and schematicity of the *way*-construction: a distributional semantic analysis. *Corpus Linguistic and Linguistic Theory* 14(1).

Van der Auwera, J., Kehayov, P. & Vittrant, A. (2009). Acquisitive modals. In Hogeweg, L., de Hoop, H. and Malchukov, A. (eds.), Cross-linguistic Semantics of Tense, Aspect and Modality. Amsterdam. John Benjamins, 271–302.

Many thanks!