

Analytic causatives in European languages:

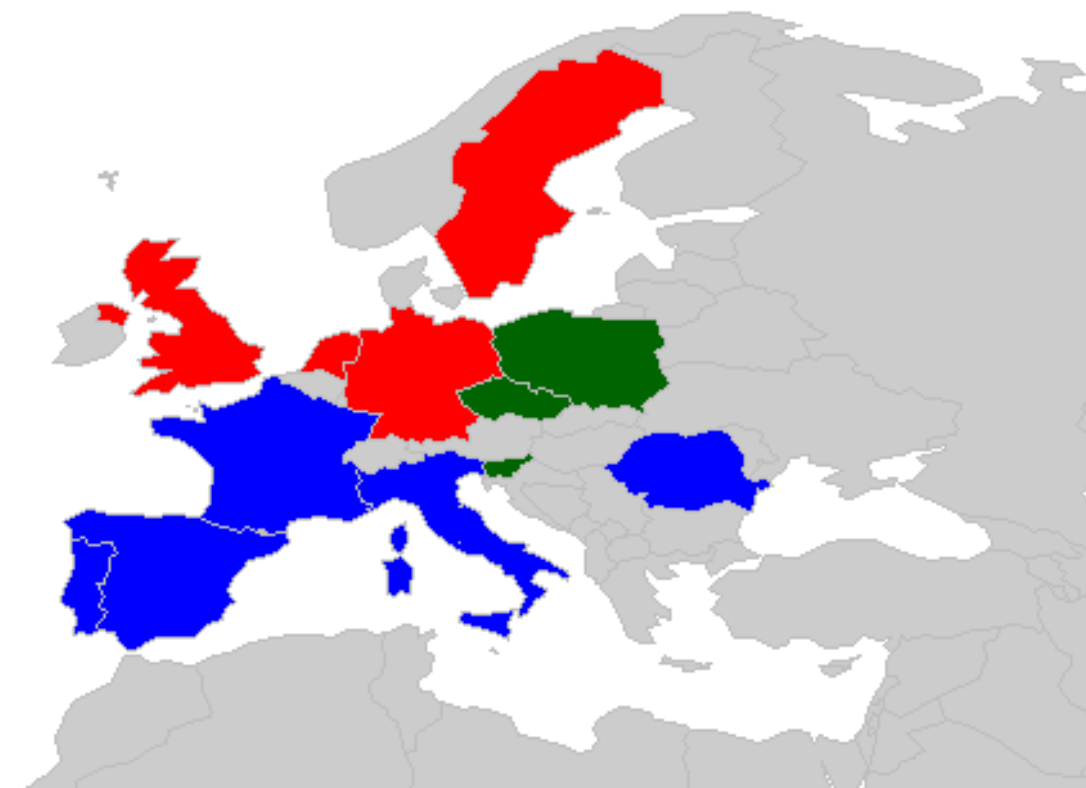
A quantitative study based on a multilingual parallel corpus

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Aims of this study

- create a probabilistic semantic map of analytic causatives (ACs) in 12 European languages
- compare the form-function mappings of language-specific ACs with the help of the map and identify genealogical and geographic patterns

Languages



Outline

1. Analytic causatives as a comparative concept
2. Data and method
3. Probabilistic semantic space of European ACs
4. Geographic and genealogical variation in form-meaning mapping
5. Conclusions

Linguistic categories and language comparison

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- Universal cross-linguistic categories (generative typology)
 - theoretically problematic (Croft 2001) and practically unsuccessful (e.g. Evans & Levinson 2009) (at least, so far...)
- Solution: comparative concepts (cf. Haspelmath 2010)...

Comparative concepts

- “concepts created by comparative linguists for the specific purpose of language comparison. Unlike descriptive categories, they are not part of particular language systems and are not needed by descriptive linguists or by speakers. They are not psychologically real, and they cannot be right or wrong. They can only be more or less well-suited to the task of permitting cross-linguistic comparison” (Haspelmath 2010)

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- Contain form and function (except phonology) and tend to include other comparative concepts, e.g. WORD, VERB or CLAUSE (Haspelmath 2010).

Comparative concepts

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Comparative concepts are constructions, which **may but do not have to** correspond to constructions in any specific language.

- Concepts such as NOUN, VERB or CLAUSE (Haspelmath 2010).

Analytic causatives as Comparative Concepts

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 - the other VERB (V2) represents the caused event
 - V2 is grammatically dependent on V1
 - The semantic subject of V2 (the Causee) is an OBJECT of V1, expressed in the surface structure or implied.

Illustrations

- EN: *make* + V

Don't make me cry, babe.

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The general ordered the troops to shoot.



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mar kete ni-wat mu tsöv

3PL.PST make stone 3SG.PST fall

“They made the stone fall“.

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- RU: *(s)delat' tak, čtoby ...* “make so that”

Ja sdelal tak, čtoby on byl postojanno rjodom.

“I made it so that he was always near.”

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Methods in constructional typology

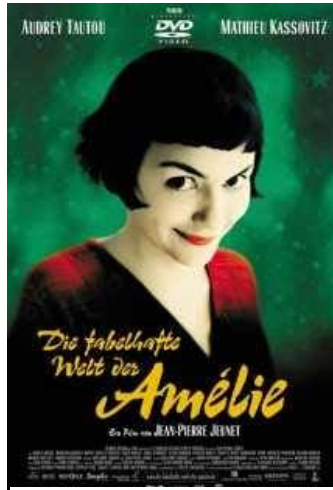
Method	Example	Context	Linguist-independent 'senses'
Decompositional method	Wierzbicka's NSM	-	-
Questionnaires and wordlists	CLICS database (List et al. 2014)	-	-
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DATA & QUANTITATIVE METHODS

Multilingual corpus of film subtitles

Movie poster for *Avatar*. It features a close-up of a blue-skinned Na'vi face. Text includes "FROM THE DIRECTOR OF TERMINATOR 2 AND TITANIC", "AVATAR", and "EXPERIENCE IT IN IMAX 3D".

An example of .srt format

...

646

00:51:27,880 --> 00:51:32,920

*For always evil will look to
find a foothold in this world.*

647

00:51:39,440 --> 00:51:42,603

Not good. Not good at all.

648

00:51:50,040 --> 00:51:51,326

Eww.

649

00:52:06,760 --> 00:52:09,081

Oh, no. Sebastian.

650

00:52:12,800 --> 00:52:13,847

Good gracious.

651

00:52:34,720 --> 00:52:35,767

Come on.

...

Data set

- All instances of ACs in 12 languages
- 362 multilingual contexts, in which at least one doculect contains an AC
- Alignment: Jörg Tiedemann's software subalign

Constructional types

- ACs with various auxiliaries (e.g. *lassen* + V, *fazer* + V)
- Transitives and ditransitives
- Causative verb + Clause (e.g. *dejar* + *que*)
- Causal prepositions (*because of*)
- Causal and resultative subordinate clauses
- Resultative cxs, e.g. *make* + Adj
- Modals
- Particles (*niech* in Polish)
- Reflexives
- Insubordination (*que* + Subj)
- ...

Matrix

	FR	EN	DE	ES	NL	SV	IT
1	faire_V	Trans	Trans	Trans	Trans	Trans	fare_V
2	faire_V	Trans	NA	Trans	Trans	Trans	fare_V
3	faire_V	have_Ved	lassen_V	Trans	Trans_Pass	Trans	fare_V
4	faire_V	Trans	lassen_V	hacer_V	Trans	Trans	fare_V
5	laisser_V	let_V	lassen_V	dejar_V	laten_V	lata_V	fare_V
6	faire_V	ResClause	NA	CausClause	ResClause	ResClause	fare_V
7	faire_V	NA	NA	NA	NA	NA	fare_V
8	faire_V	Trans_Pass	NA	Trans	Trans_Pass	Trans_Pass	fare_V
9	empêcher_de_V	make_V	lassen_V	NA	doen_V	fa_att_V	NA
10	faire_V	have_Ved	lassen_V	Refl	laten_V	NA	NA
11	faire_V	NA	Trans_Pass	TransPass	NA	NA	fare_V
12	NA	Trans	lassen_V	hacer_V	Trans	Trans	fare_V
13	faire_V	NA	Trans	Trans	NA	Trans	fare_V
14	NA	Trans	NA	NA	Trans	fa_att_V	NA
15	faire_V	Trans_Pass	Trans_Pass	NA	Trans_Pass	NA	fare_V
16	laisser_V	Trans	NA	dejar_V	Intrans	Intrans	fare_V
17	faire_V	NA	lassen_V	NA	NA	NA	fare_V
18	faire_V	Trans_Pass	lassen_V	TransPass	Trans_Pass	Refl	fare_V
19	laisser_V	let_V	lassen_V	dejar_V	laten_V	lata_V	lasciare_V
20	laisser_V	let_V	lassen_V	dejar_V	laten_V	lata_V	lasciare_V
21	Trans	Trans	lassen_V	Trans	laten_V	NA	Trans
22	Trans	Trans	lassen_V	Trans	laten_V	NA	Trans

Gower's Distances

Situation (row) A

EN: And we make them do it... ..or we kill them. **make_V**

IT: E glielo facciamo fare ... o lo uccidiamo. **fare_V**

CZ: Donutíme je to udělat, nebo je zabijeme. **donutit_V**

Situation (row) B

EN: Pick up someone my height and build and make them believe it is me. **make_V**

IT: Individua una della mia corporatura e fa credere loro che sia io. **fare_V**

CZ: Vyber někoho, kdo je mi podobný a přesvědč je, že jsem to já. **Trans**

$$\text{Distance (A, B)} = 1 - 2/3 \approx 0.33$$

Statistical methods

- Multidimensional Scaling of the distance matrix.

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- The main principle: the closer two points on the map, the more overlapping constructions they share across the languages. From the isomorphism principle it follows that the corresponding situations are more semantically similar (on average), since more authors of the doculects chose identical constructions to represent these causative situations.

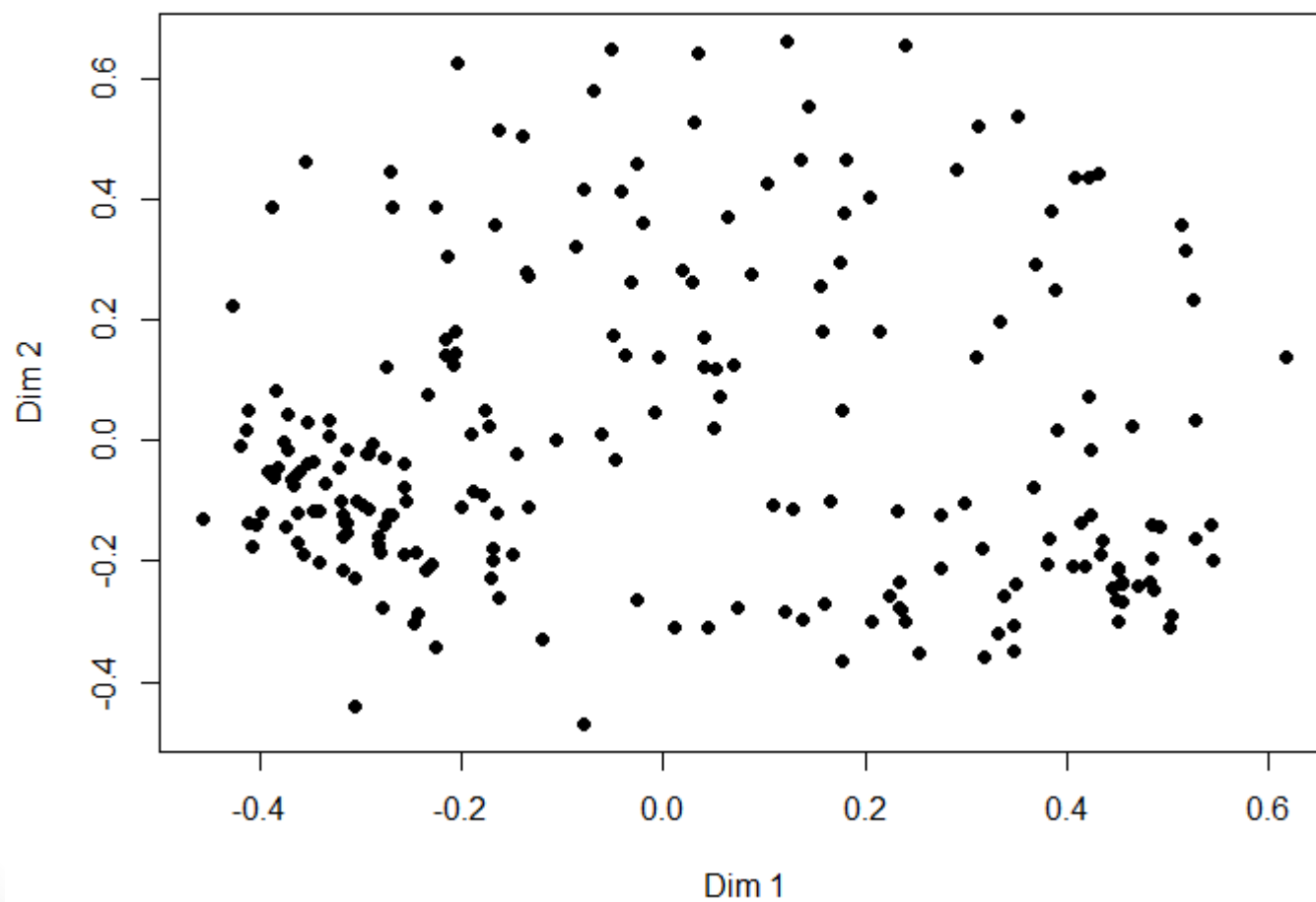
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- The main principle: the closer two points on the map, the more overlapping constructions they share across the languages. From the isomorphism principle it follows that the corresponding situations are more semantically similar (on average), since more authors of the doculects chose identical constructions to represent these causative situations.
- Therefore, the result is a **probabilistic semantic map** (Wälchli & Cysouw 2012).

PROBABILISTIC SEMANTIC MAP OF AC_s

MDS-based semantic map

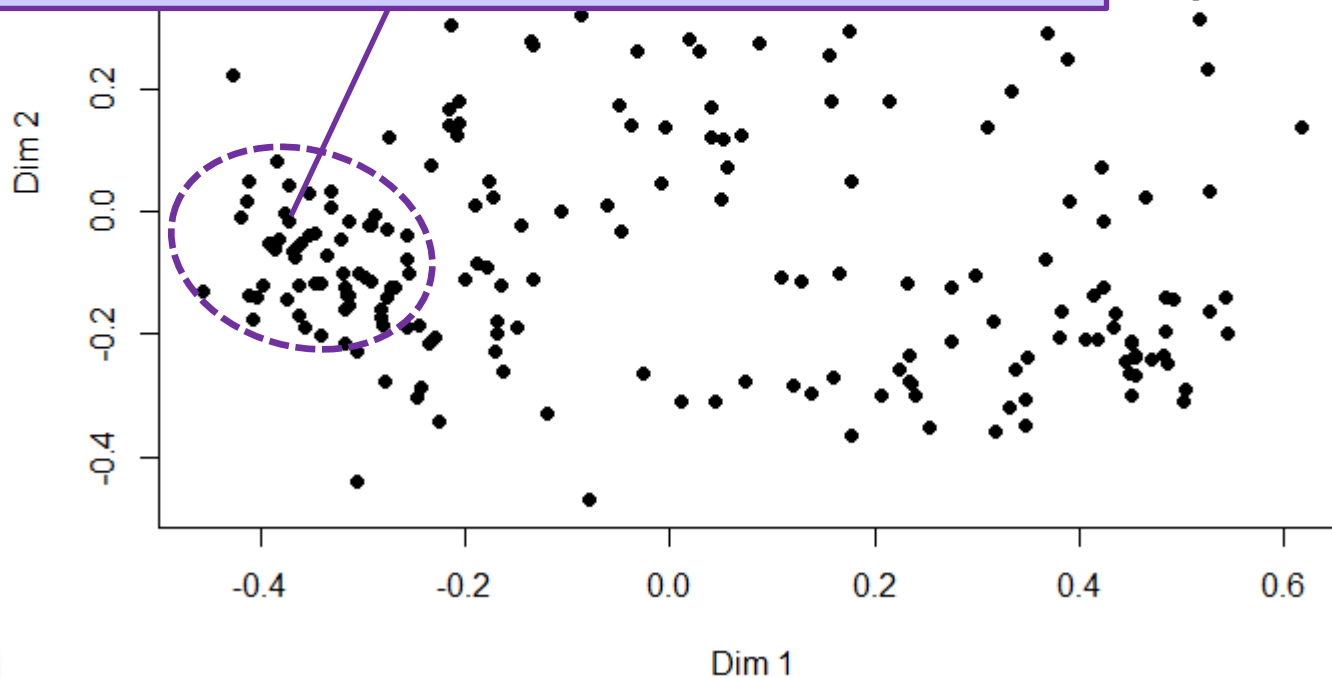
Probabilistic semantic map of ACs



Direct Causation (Patient Ce)

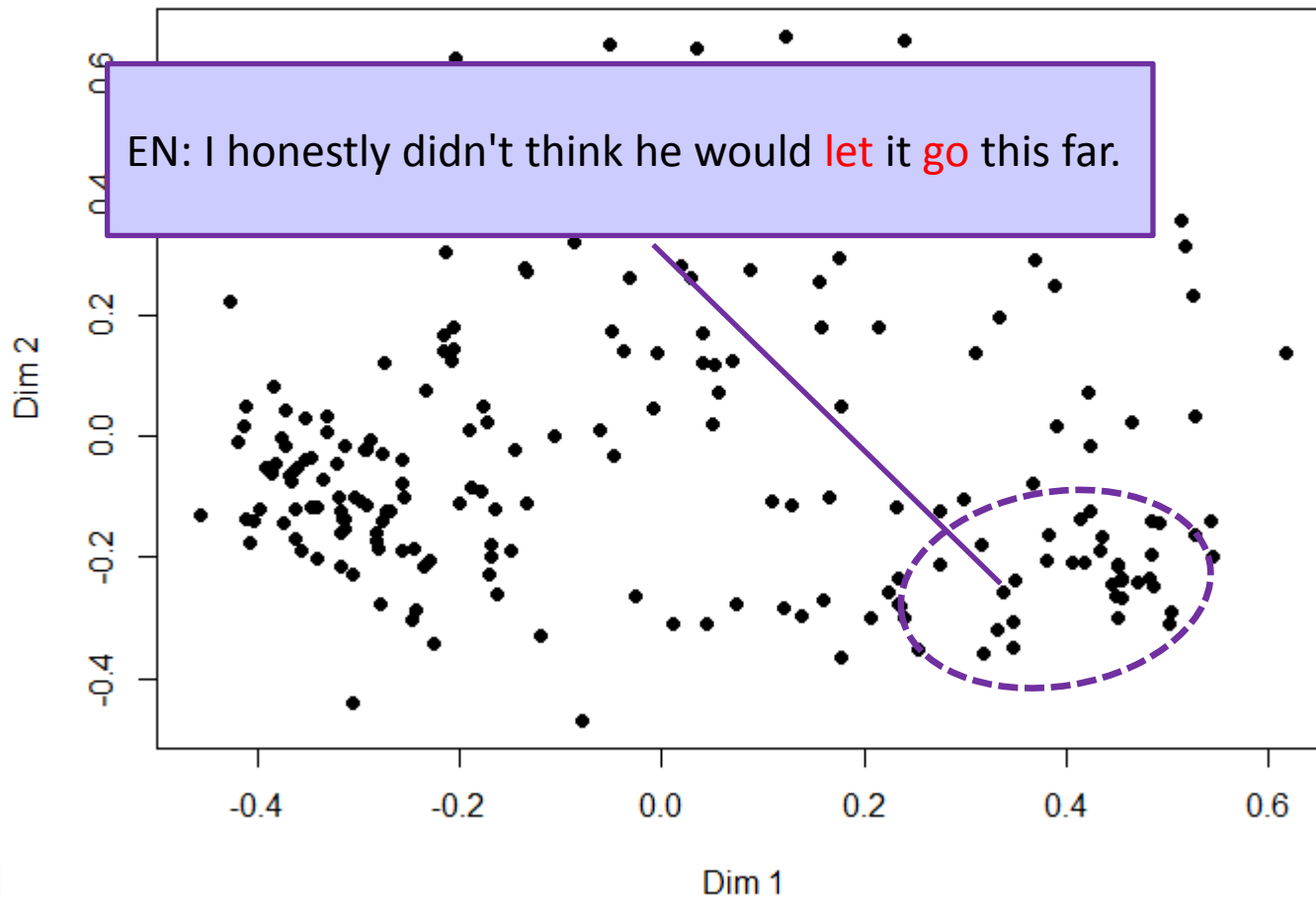
FR: Alors après avoir tué ce clébard à la botte des allemands...on ira les **faire taire** une bonne fois pour toutes.

EN: Then after we kill this dog for the Germans ... we'll go and **silence** them.



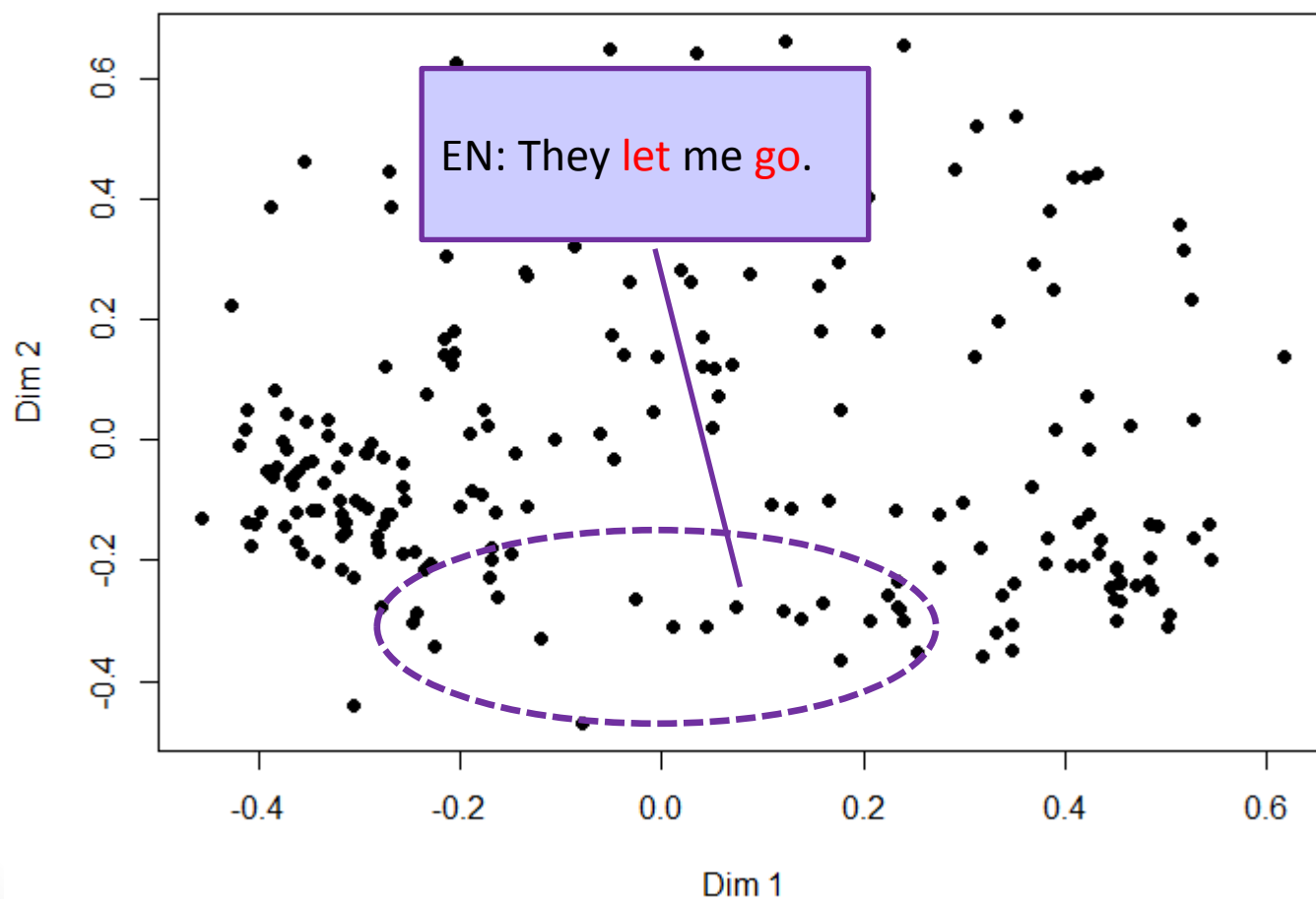
Letting (non-interference)

Probabilistic semantic map of ACs



Letting (removal of blockage)

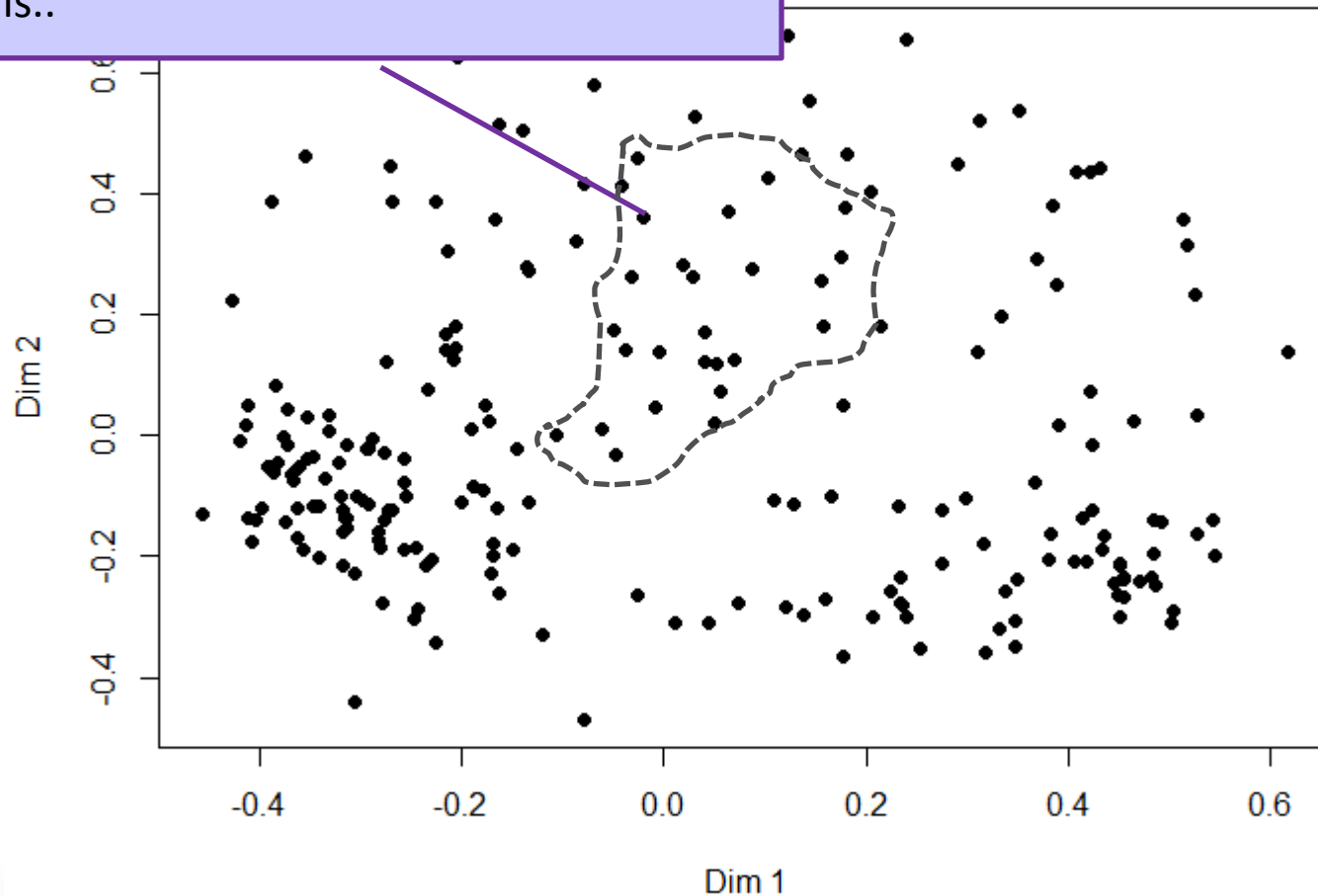
Probabilistic semantic map of ACs



Indirect causation (distance or agentive Ce)

EN: I can't believe you're making me do this..

ntic map of ACs

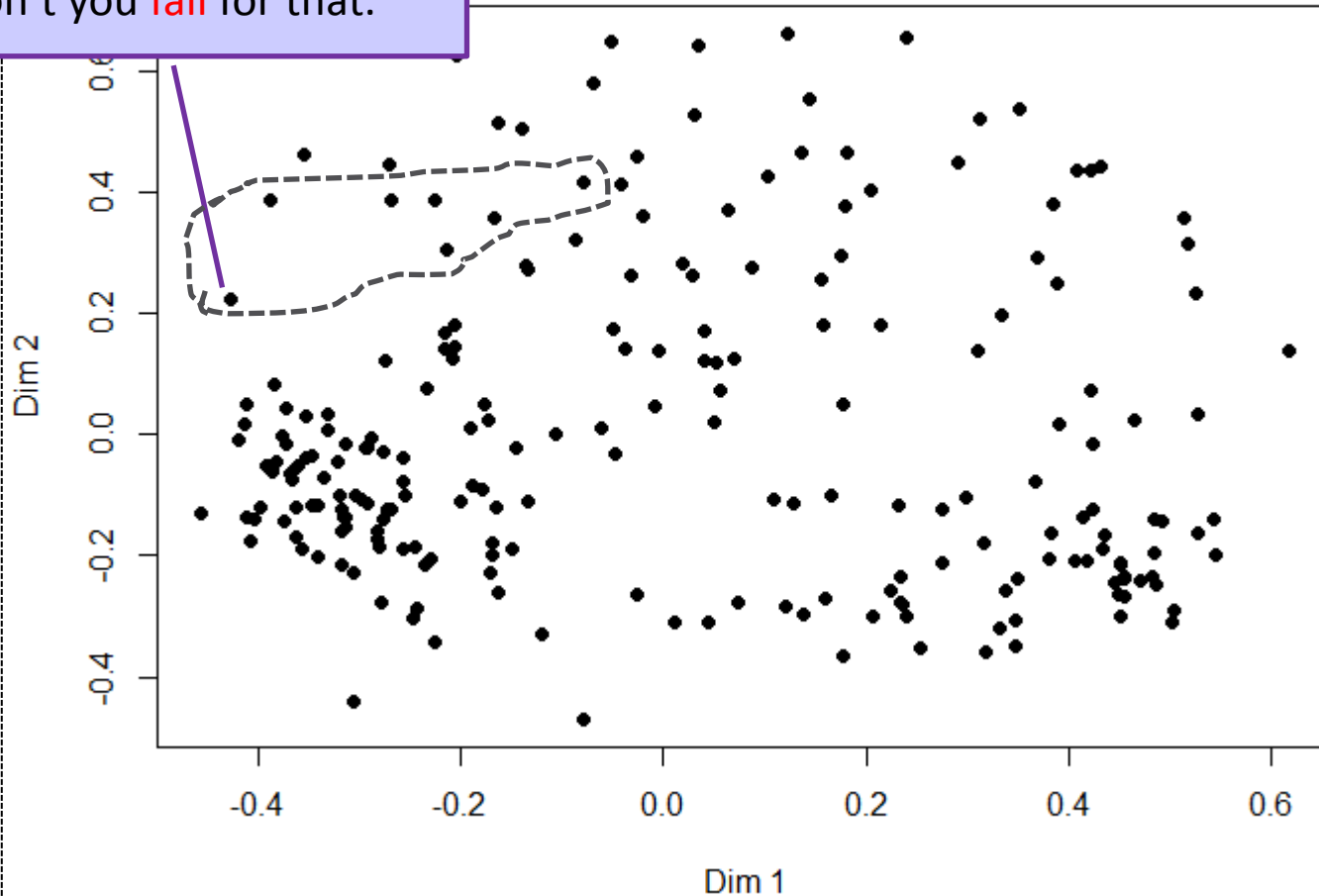


Passive (Causer = Affectee)

FR: Ne te **fais** pas **avoir**.

EN: Don't you **fall** for that.

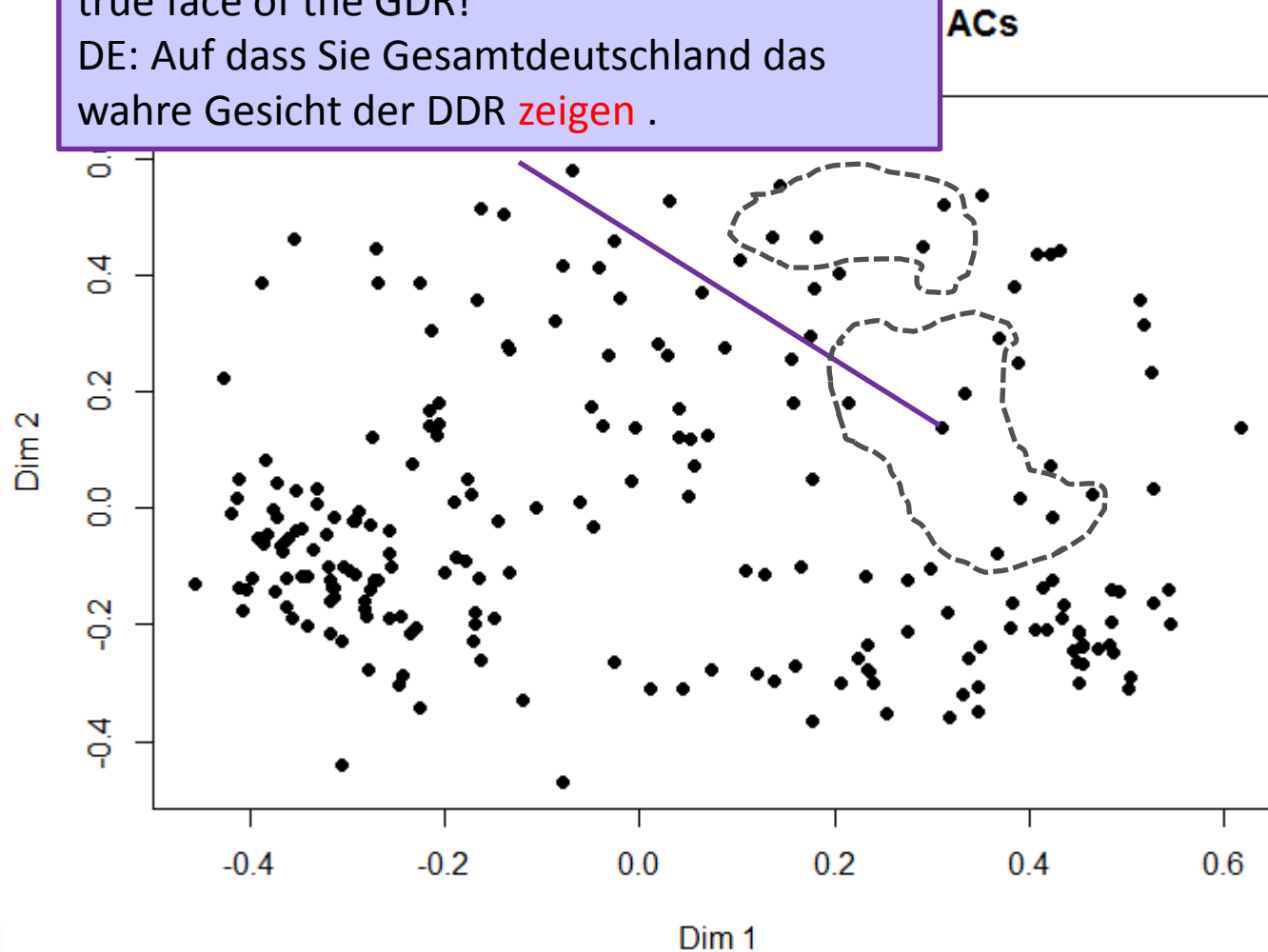
Probabilistic semantic map of ACs



'Show'

EN: To you! To **letting** all of Germany **see** the true face of the GDR!

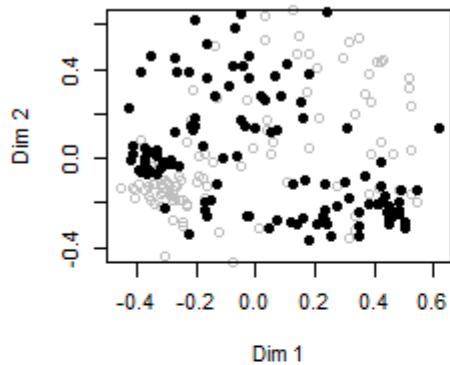
DE: Auf dass Sie Gesamtdeutschland das wahre Gesicht der DDR **zeigen** .



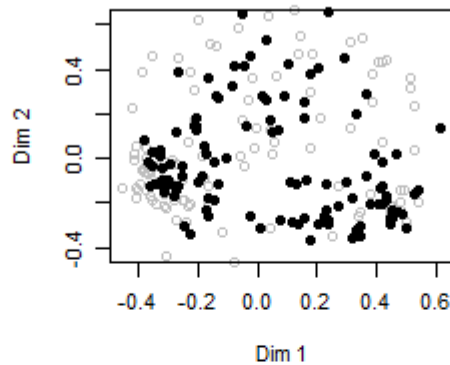
CROSS-LINGUISTIC VARIATION IN FORM-MEANING MAPPING

All ACs: Romance & English

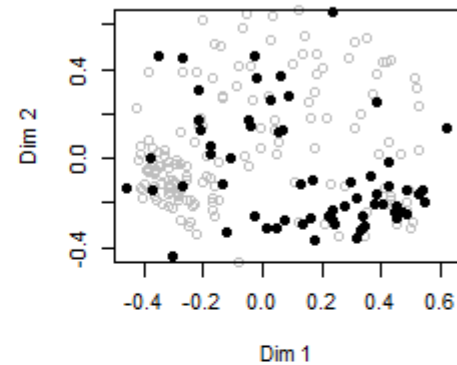
French ACs



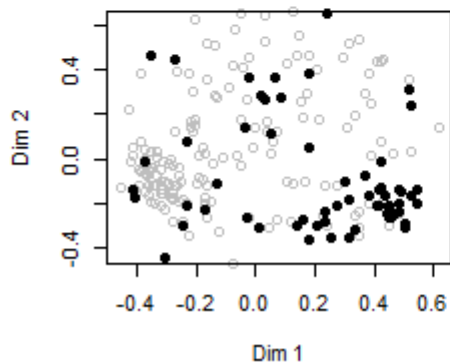
Italian ACs



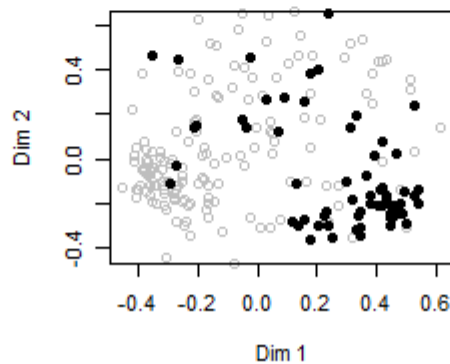
Spanish ACs



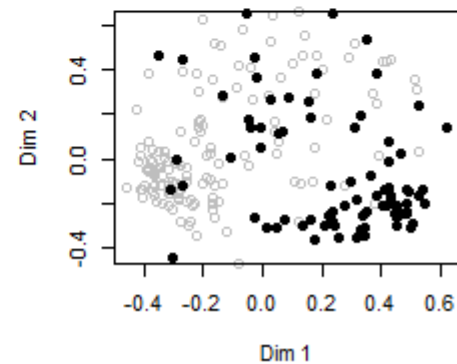
Portuguese ACs



Romanian ACs

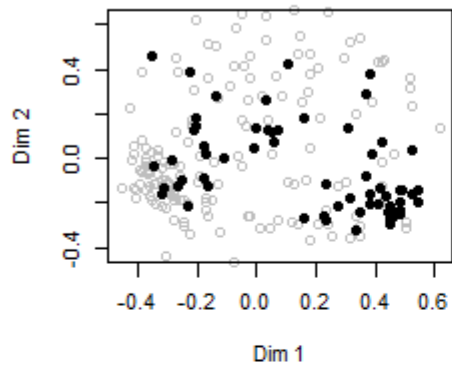


English ACs

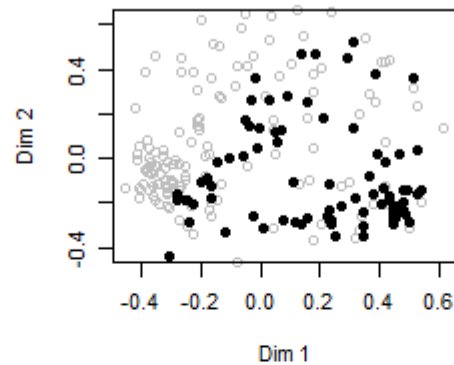


All ACs: Germanic & Slavic

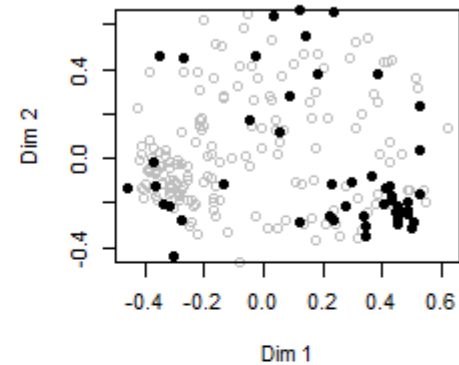
German ACs



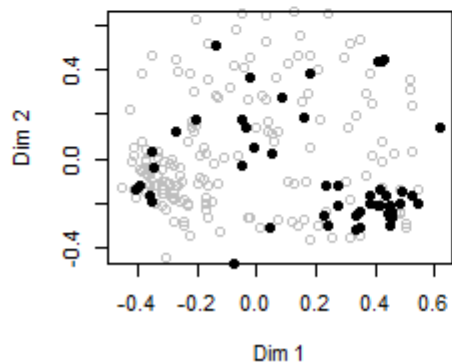
Dutch ACs



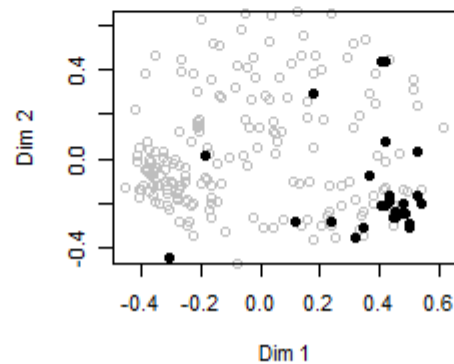
Swedish ACs



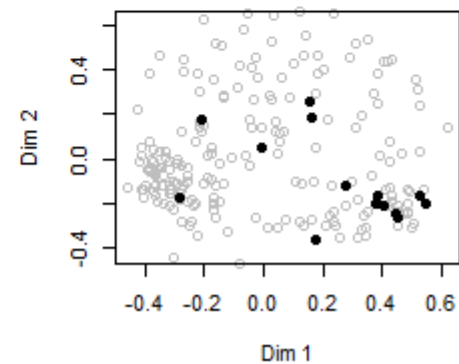
Czech ACs



Polish ACs

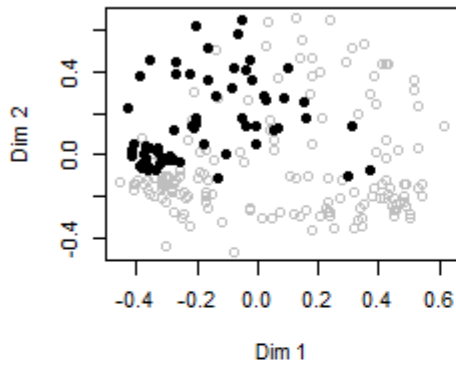


Slovenian ACs

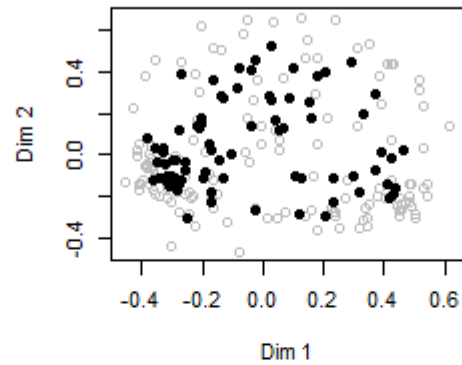


ACs with 'make': Romance & English

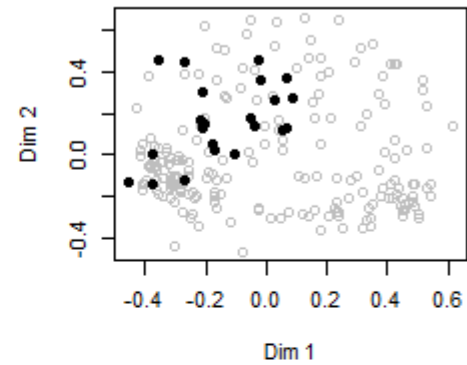
faire + V



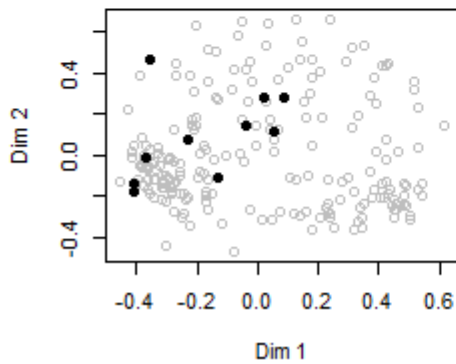
fare + V



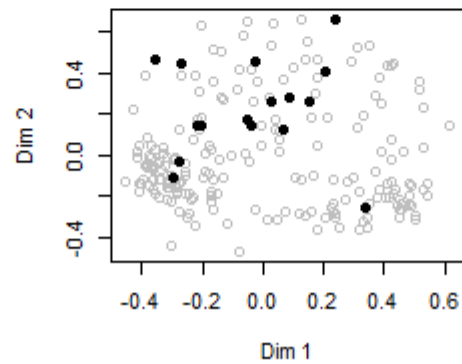
hacer + V



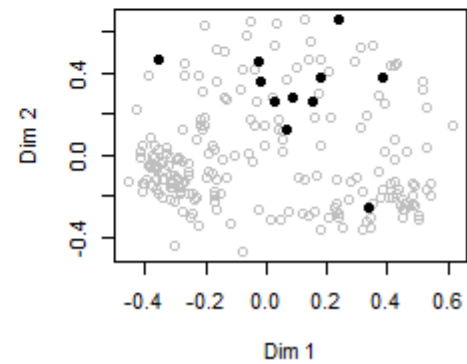
fazer + V



face + sa + V

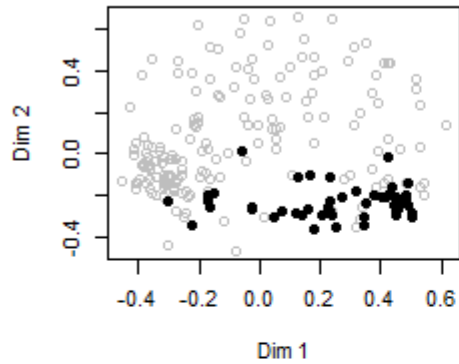


make + V

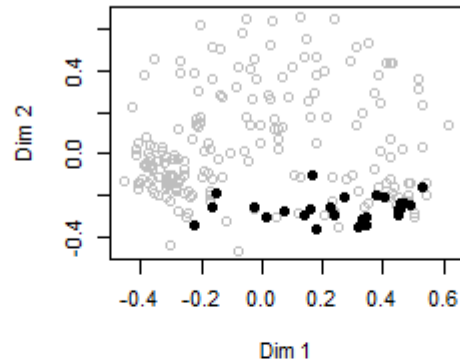


ACs with 'let': Romance & English

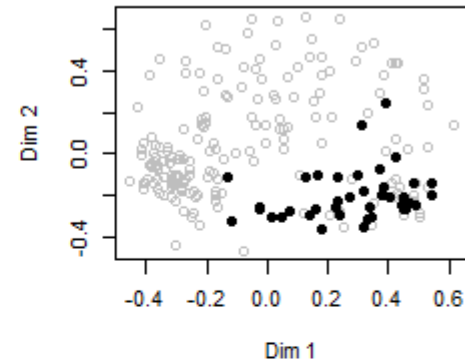
laisser + V



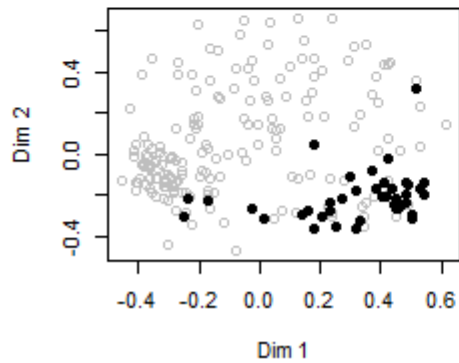
lasciare + V



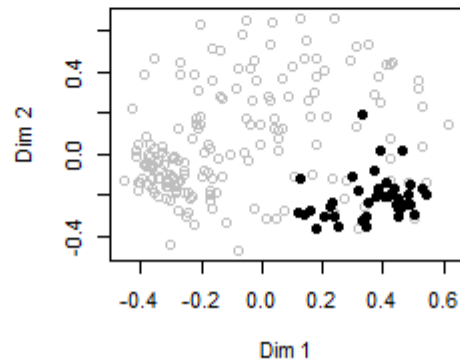
dejar + V



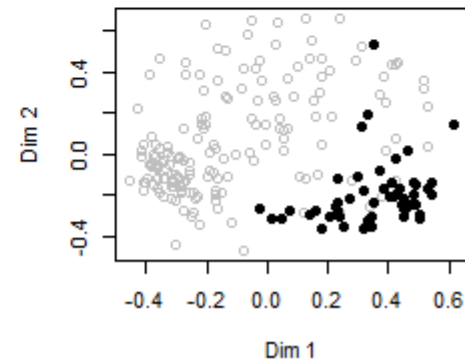
deixar + V



lasa + sa + V

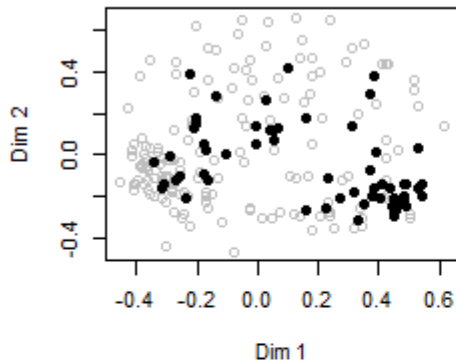


let + V

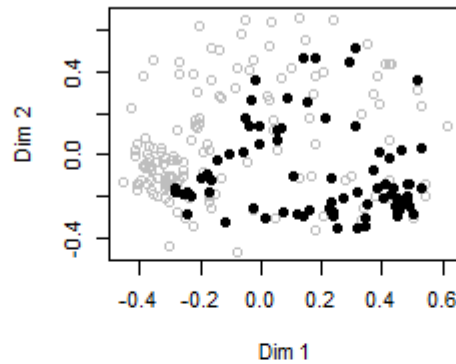


ACs with 'let': Germanic & Slavic

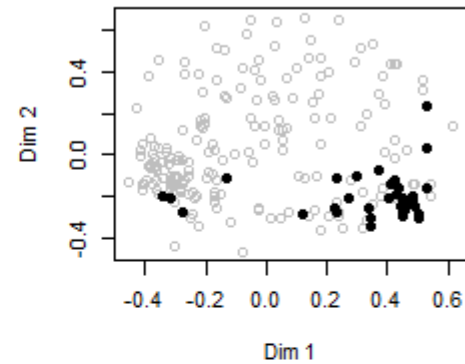
lassen + V



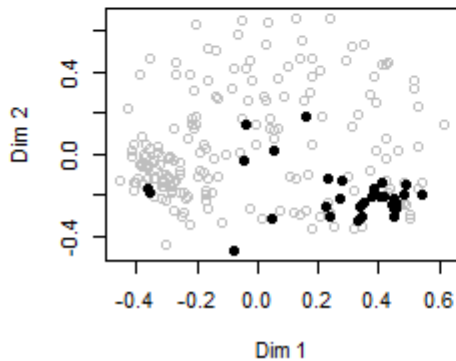
laten + V



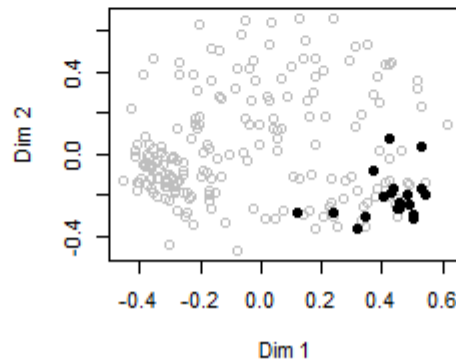
lata + V



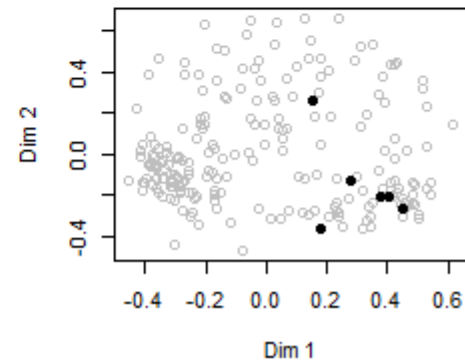
nechat + V



pozwolic + V



pustiti + V



CONCLUSIONS

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letting < indirect causation < direct causation

- Although the plots reveal some genealogical similarities, this does not hold for all languages and language groups. In addition, some patterns can be best explained by language contact (e.g. CZ and DE).

A hypothesis

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- Since these languages constitute the nucleus of Standard Average European (Charlemagne Sprachbund), are such ACs a SAE feature? (cf. van der Auwera 1998; Haspelmath 2001)



He is not a big fan of causatives...

In Slovene: variation between Vinf after V1 and *da*-clause:

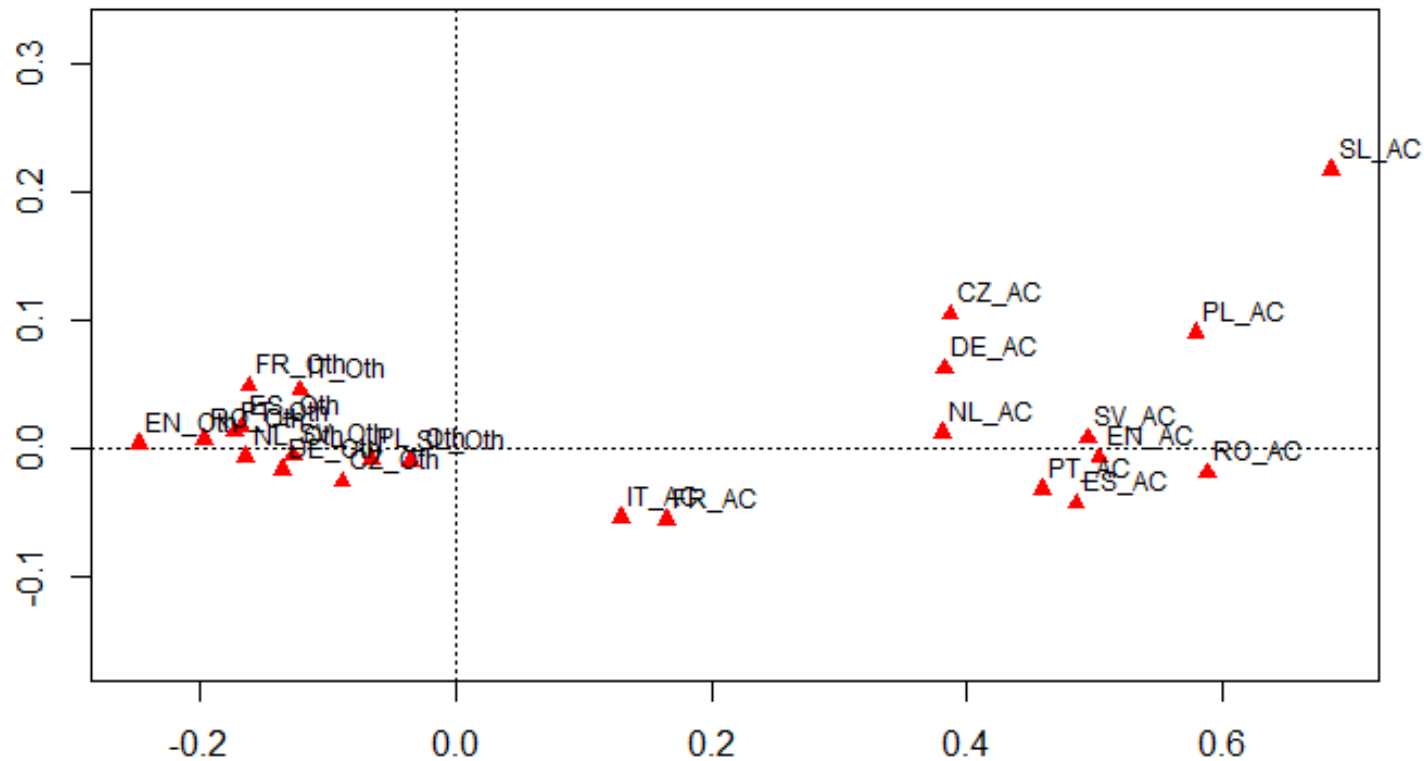
- *dati* “give” + Vinf: *Dal mi je vedeti, da sem slab študent* “He let me know that I am a bad student”. (Greenberg 2006: 131) **AC**

- *dati* + *da* + V_{Indicative}: *Zajebavaš, daj da vidim*. “You’re kidding, let me see.” **NOT AC**
(to be explored)

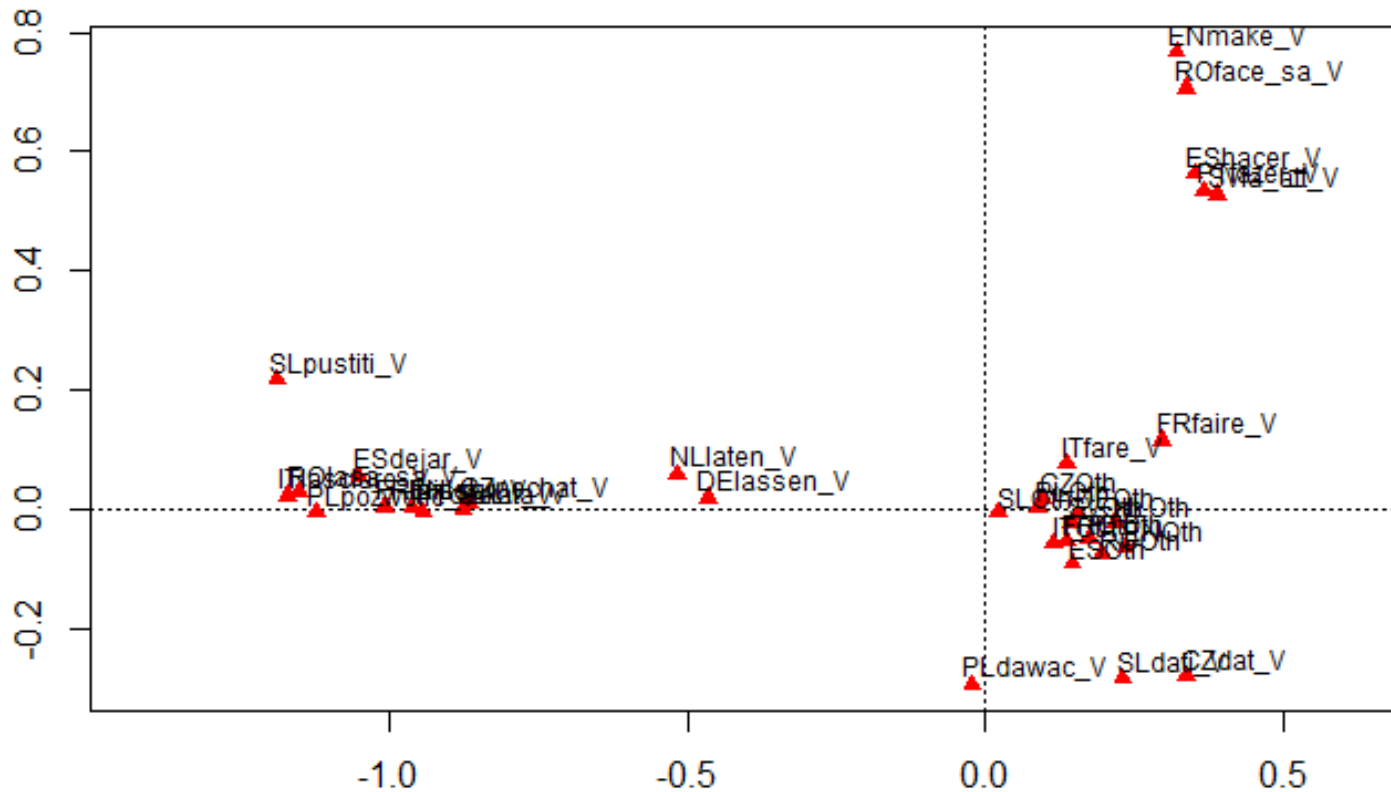
NON-FINITE CLAUSE

- Non-finiteness = ‘desententialization’, i.e. the degree of downgrading of the dependent clause with respect to the prototypical independent/main clause.
- gradual and language-specific
- Relatively uncontroversial features: **no tense marking, lack of subject agreement** (Nikolaeva 2007)

MCA of abstract AC types



MCA of specific types



Analytic causatives as Comparative Concepts

- An AC is a construction that...
- designates a causative event, which involves a causing and caused events
- The obligatory core of an AC consists of two **VERBS**:
 - one **VERB** (V1) represents in an abstract way the causing event
 - the other **VERB** (V2) represents the caused event
 - V2 is grammatically dependent on V1
 - The semantic subject of V2 (the Causee) is an OBJECT of V1, expressed in the surface structure or implied.

VERB: A WORD that (typically) expresses predication (vs. reference and modification) and action (vs. objects and states) (Croft 1991).

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WORD: “a segment string that cannot be interrupted by a free form without changing the meaning” (Haspelmath 2010: 4)

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