Substrate influence in the competition between NPs and PPs in argument structure constructions

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Substrate influence in the competition between NPs and PPs in argument structure constructions

➢ Two main issues:

1) How to measure substrate influence?

2) How to ensure that the PPs are complements and not adjuncts?

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Background

Background

– PPs in World Englishes

    – Indian English and Hong Kong English

    – PPs and prepositional verbs as distinctive features of WEs (Schneider 2004; Mukherjee & Hoffmann 2006; Nesselhauf 2009; Mukherjee & Gries 2009; Nelson & Hongtao 2012; Zipp & Bernaisch 2012; Schneider & Zipp 2013; Zipp 2014)

Substrate influence

Substrate influence
ICE India

– Speakers in ICE > 10

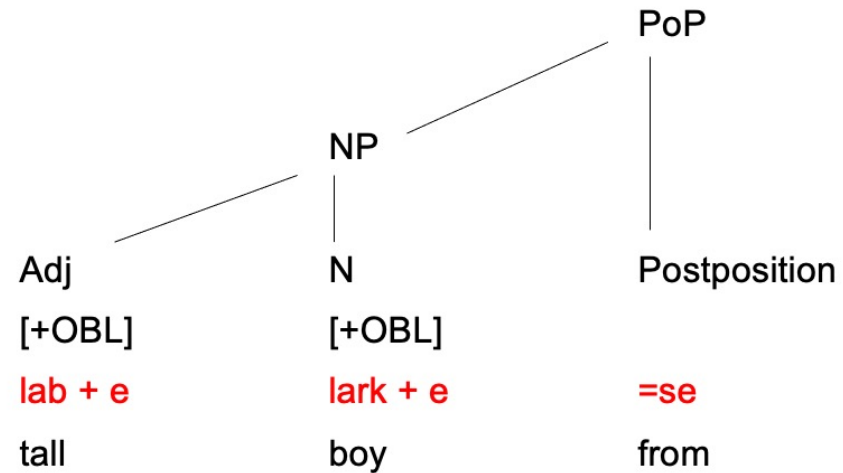| Substrate	Language family	Speakers in ICE
Marathi	Indo-Aryan	97
Kannada	Dravidian	78
Tamil	Dravidian	37
Hindi/Urdu	Indo-Aryan	37
Telugu	Dravidian	26
Malayalam	Dravidian	25
Punjabi	Indo-Aryan	24
Konkani	Indo-Aryan	19
Bengali	Indo-Aryan	15

Substrate influence
Case vs. postpositions

– Most IndE speakers have a substrate language from the **Indo-Aryan** and **Dravidian** language families

– NP vs. PP competition: case vs. postpositions

⇔ The case-postposition conundrum (e.g. Masica 1991: 241; Butt & King 2004: 173-176; Spencer 2005)

– Mostly a problem for the Indo-Aryan language family

Substrate influence
Case vs. postpositions

- How do speakers of IndE perceive the case markers? As part of the noun or as postpositions?

  - Semantically: case

  - Syntactically: clitics, exist at the phrasal level

```
                                          PoP
                                         /  |
                    NP                  /   |
                   /  |                /    |
                  /   |               /     |
      Adj             N          Postposition
      [+OBL]          [+OBL]
      lab + e         lark + e        =se
      tall            boy             from            (Bubeník 2006)
```

Substrate influence
Case vs. postpositions

– Suggestion:

– Compare Sino-Tibetan (mostly Cantonese) and Dravidian language families

– No case system vs. clear case system

– Then see where Indo-Aryan positions itself compared to these two

– IndE and HKE

Substrate influence
How to measure it?

– Metadata ICE

  – ICE India: compatibility problems (Hansen 2018)

  – Substrate language is not always known (lots of empty cells in the data)

  – Not enough data to make a distinction between the different languages

    ➢ Language families

    ➢ 'Strength case system' not reliable enough (and not significant)

      ➢ Differs between researchers

      ➢ Arbitrary distinctions

# Argument structure constructions

Argument structure constructions

– The adjunct-complement continuum

– Argument structure constructions > COMPLEMENTS

– Theoretical distinction (Goldberg 2002, Hoffmann 2007)

   – Inter-rater reliability: 54%

– FrameNet

   – "The Berkeley FrameNet project is producing frame-semantic descriptions of several thousand English lexical items and backing up these descriptions with semantically annotated attestations from contemporary English corpora" (Baker, Fillmore and Lowe 1998: 86)

Argument structure constructions

Obligatory	Optional

A) Complement of construction and verb
 	
Subcategorised P-type
- Verbs that only license a specific prep
  e.g. I <u>rely</u> on you.
 	
- Verbs with an IO as prep
  e.g. I <u>gave</u> it to you.
 	
- Verbs that mean sth. else without a prep
  e.g. He <u>took</u> me for a teenager.
 	
Subcategorised PP-type
e.g. She <u>put</u> the package on the table.
 	
Obligatory subject complement
e.g. I <u>live</u> on the moon.
	B) Complement of verb
	
	"Mixed adjuncts" when needed by the verb
	e.g. I <u>loaded</u> the wagon with hay.
	
	Optional complements
	e.g. We <u>talked</u> about everything.

C) Complement of construction **Obligatory complement of the construction** e.g. She sneezed the foam <u>off the cappuccino</u>.	D) Traditional adjunct **Sentence adjuncts** e.g. John <u>died</u> in Rome. **Mixed PPs when not needed by the verb** e.g. I <u>killed</u> the cat with a knife.

Argument structure constructions
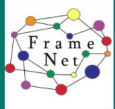
About FrameNet ▾   Documentation ▾   FrameNet Data ▾   Related Projects ▾   Bibliography

Frame Net

make   Search

| # | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | All |

Search: make

- make (someone's) acquaintance.idio (Make_acquaintance) **Created** Lexical Entry
- make a beeline.v (Self_motion) **Created** Lexical Entry
- make a name for oneself.v (Fame) **Created** Lexical Entry
- make arrangements.idio (Making_arrangements) **Created** Lexical Entry
- make baby.v (Procreative_sex) **Created** Lexical Entry
- make history.idio (Historic_event) **Rules_Defined** Lexical Entry
- make it.v (Arriving) **Finished_Initial** Lexical Entry Annotation
- make it.v (Personal_success) **Created** Lexical Entry
- make love.v (Sex) **Created** Lexical Entry
- make off (with).v (Theft) **Created** Lexical Entry
- make out to be.v (Communicate_categorization) **Created** Lexical Entry Annotation
- make sure.v (Verification) **Created** Lexical Entry Annotation
- make up.v (Reparation) **Created** Lexical Entry Annotation
- make whoopee.a (Sex) **Created** Lexical Entry
- make-up.n (Body_decoration) **Finished_Initial** Lexical Entry Annotation
- make.n (Type) **Finished_Initial** Lexical Entry Annotation
- make.v (Causation) **Finished_Initial** Lexical Entry Annotation
- make.v (Building) **Finished_Initial** Lexical Entry Annotation
- make.v (Arriving) **Insufficient_Attestations** Lexical Entry Annotation
- make.v (Cooking_creation) **Finished_Initial** Lexical Entry Annotation
- make.v (Intentionally_create) **Created** Lexical Entry Annotation
- make.v (Self_motion) **Finished_Initial** Lexical Entry Annotation
- make.v (Manufacturing) **Finished_Initial** Lexical Entry Annotation
- make.v (Cause_change) **Created** Lexical Entry Annotation
- make.v (Earnings_and_losses) **Created** Lexical Entry Annotation
- make.v (Creating) **Created** Lexical Entry Annotation
- maker.n (Manufacturing) **Created** Lexical Entry Annotation

Argument structure constructions

Creating

Definition:

A Cause leads to the formation of a Created_entity.
Dr. Frankenstein CREATED a monster.

FEs:

Core:

Created_entity [CrEnt]   This FE identifies the entity that the Agent intentionally creates.
They were ASSEMBLING grenades for export.

Creator [cre]   The Creator creates a created entity.

Core Unexpressed:

Cause [Cause]   An animate or inanimate entity, a force, or event that produces an effect. Volitionality is not a necessary characteristic of Causes.
Excludes: Creator
Non-Core:

Beneficiary [ben]   The Beneficiary benefits in some way from the creation of the Created_entity.

Circumstances []   Circumstances describe the state of the world (at a particular time and place) which is specifically independent of the event itself and any of its participants.

Argument structure constructions

–   FrameNet

  –   Core vs. non-core ~ complements vs. adjuncts

  –   + takes into account the polysemy of the verbs

Dataset

Frequencies
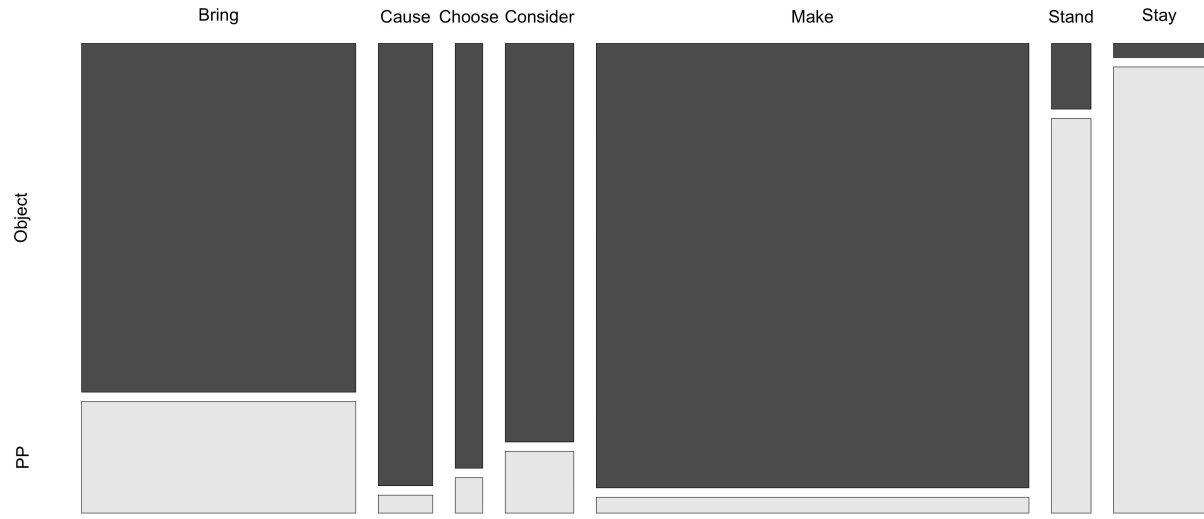

IndE
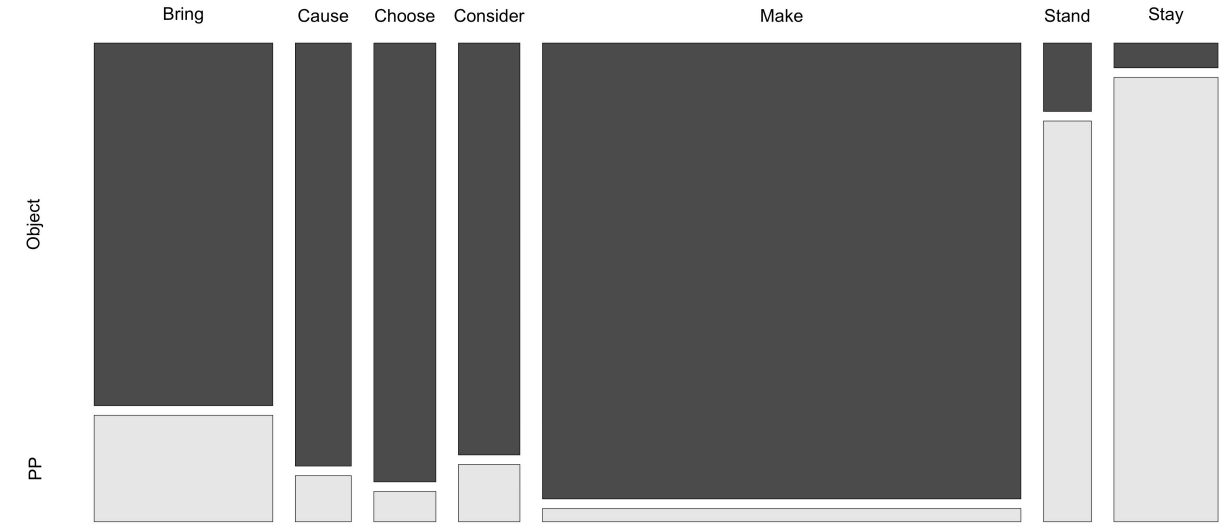
HKE

Frequencies
HKE

Verb	Object	PP
bring	276	81
cause	101	11
choose	116	8
consider	108	15
make	929	27
stand	14	82
stay	11	197

Frequencies
IndE

| Verb	Object	PP
bring	294	94
cause	74	3
choose	36	3
consider	84	13
make	591	21
stand	8	48
stay	4	126

Statistical modelling

Factors

– Verb

– Pattern (PP vs. NP)

– Language family (Indo-Aryan, Dravidian, Sino-Tibetan)

– Variety (HKE, IndE)

– Register (spoken vs. written)

– Length NP

– Head noun (noun vs. pronoun)

– Frame

Factors

– Frame: verb semantics

  – Too fine-grained (± 30 categories for *make*!) > less specific categories

  – *make*

    – e.g. Building, Manufacturing, Creating, Intentionally_create, Cooking_creation > Create

    – e.g. *make acquaintance, make history, make use, make arrangements, make love, make a choice/decision* > Idiomatic

  – *stand*
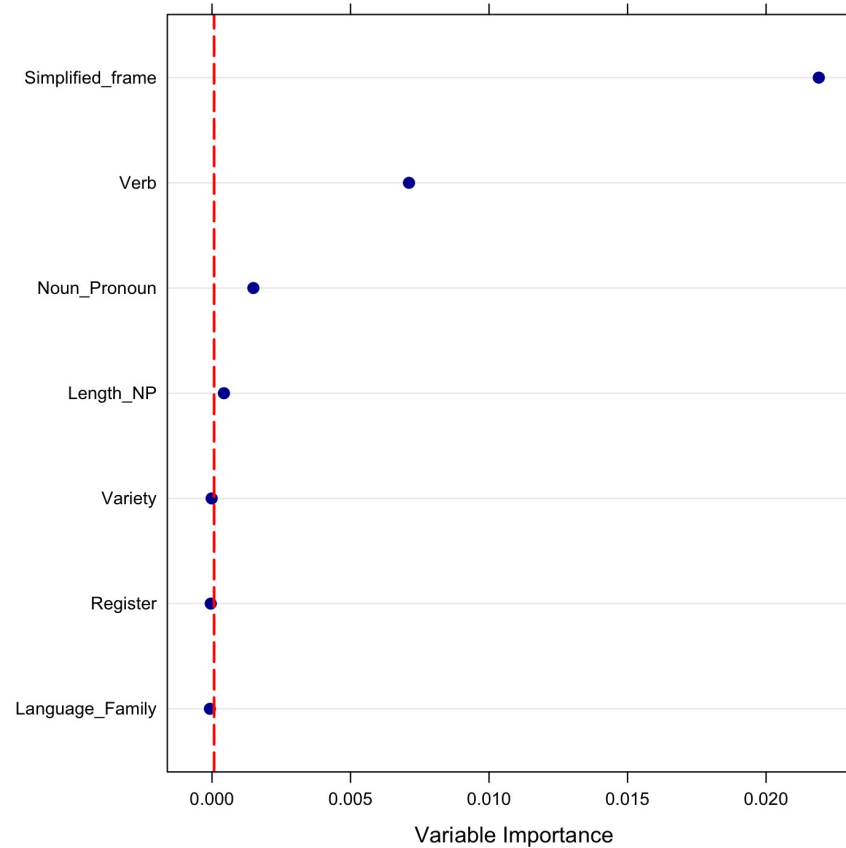
    – Abstract (e.g. tolerating) vs. Literal

Results (C-value = 0.9203049)
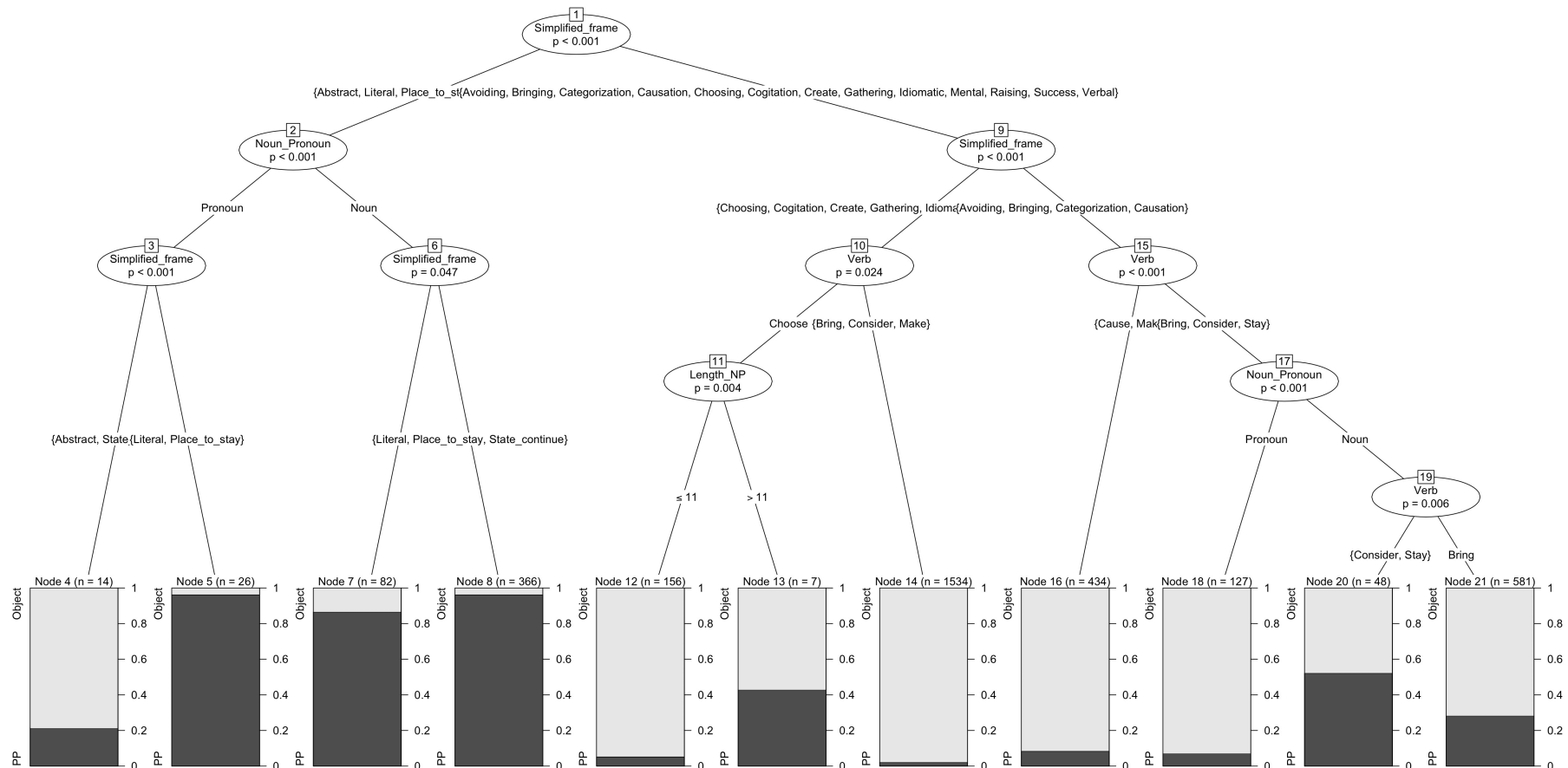
Results Random Forest Analysis (C-value = 0.9569570)
Without NAs for Language_Family

Conclusion

Conclusion

– Important factors for the choice between NPs and PPs:

  – Semantics of the verb

  – Whether the head noun is a noun or a pronoun

  – The verb itself, regardless of semantics

  – The length of the NP

– Language-internal factors are the most significant ones

  – Variety, register and the language family that the substrate belongs to do not appear to be significant

Conclusion

–   Questions/Improvements?

  –   Add BrE as a yardstick?

  –   Add verbs that have a more balanced distribution between NPs and PPs?

  –   I had to restrict myself to a couple of (high-frequency) verbs

    –   Extrapolation possible?

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