

Preferred Argument Structure in Mapudungun Narratives

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Morphosyntactic alignment

- How are the arguments of intransitive and transitive verbs marked?
 - S: Marking of sole argument of intransitive clause
 - A: Marking of more agent-like argument of prototypical transitive clause
 - P: marking of more patient-like argument of prototypical transitive clause
- Verbal arguments can be expressed with nominal (case) marking or verbal (person) marking
- Depending on the alignment type, different types of arguments can be marked the same

Alignment types

(1) Nominative-accusative (German)

a. [Der gross-e Hund] knurr-te.
DEF.NOM big-NOM dog growl-PST

‘The big dog(S) growled.’

b. [Der gross-e Hund] biss [den klein-en Mann].
DEF.NOM big-NOM dog bite.PST DEF.ACC small-ACC man

‘The big dog(A) bit the small man(P).’

Alignment types

(2) Nominative-accusative (Latin)

a. Puella veni-t.

girl.NOM come-PRS.3SG

‘The girl(S) comes.’

b. Puer-um puella audi-t.

boy-ACC girl.NOM hear-PRS.3SG

‘The girl(A) hears the boy(P).’

Alignment types

(3) Ergative-absolutive (Lezgian)

- a. **Za** **zi** **balk'an** **c'ud** **xipe-qh** **ga-na.**
1SG.ERG 1sg.poss horse.ABS ten sheep-for give-PST
'I(A) gave away my horse(P) in exchange for ten sheep.'
- b. **Zun** **ata-na.**
1SG.ABS come-PST
'I(S) came.'
- c. **Aburu** **zun** **ajib-da.**
3PL.ERG 1SG.ABS shame-FUT
'They(A) will shame me(P).'

Alignment types

(4) Ergative-absolutive (Basque)

a. **Gixona-k** liburua erosi dau.

man-ERG book.ABS buy AUX.3SG

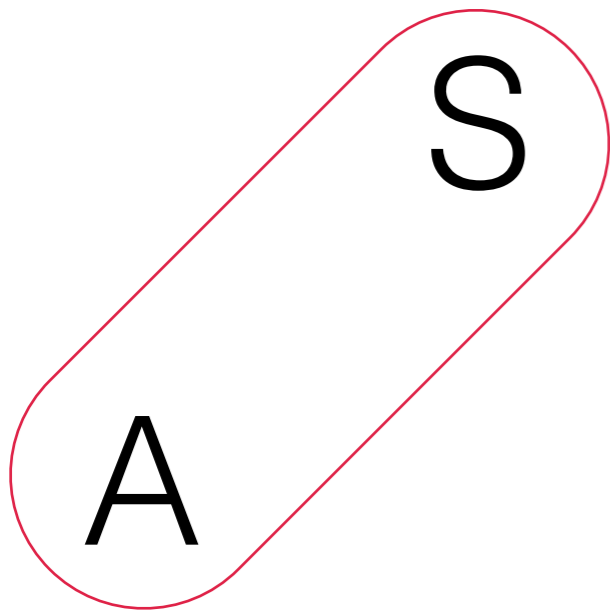
‘The man(A) has bought the book(O).’

b. **Gixona** etorri da.

man.ABS come AUX.3SG

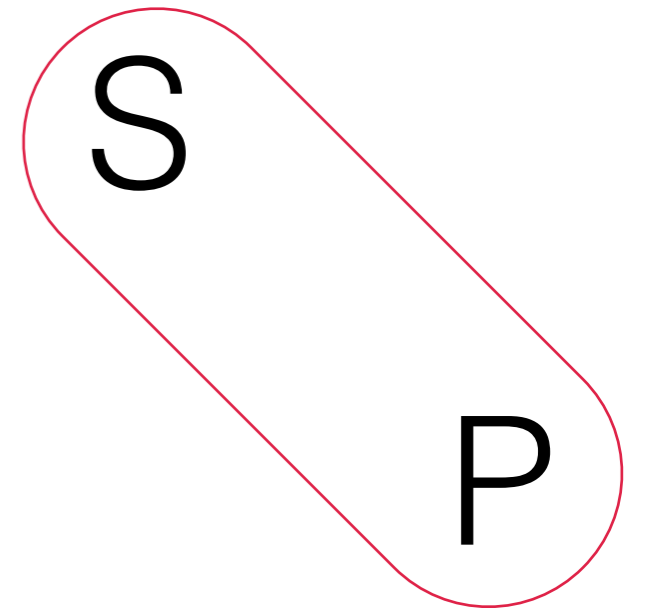
‘The man(S) has come.’

Accusative vs. ergative



P

A



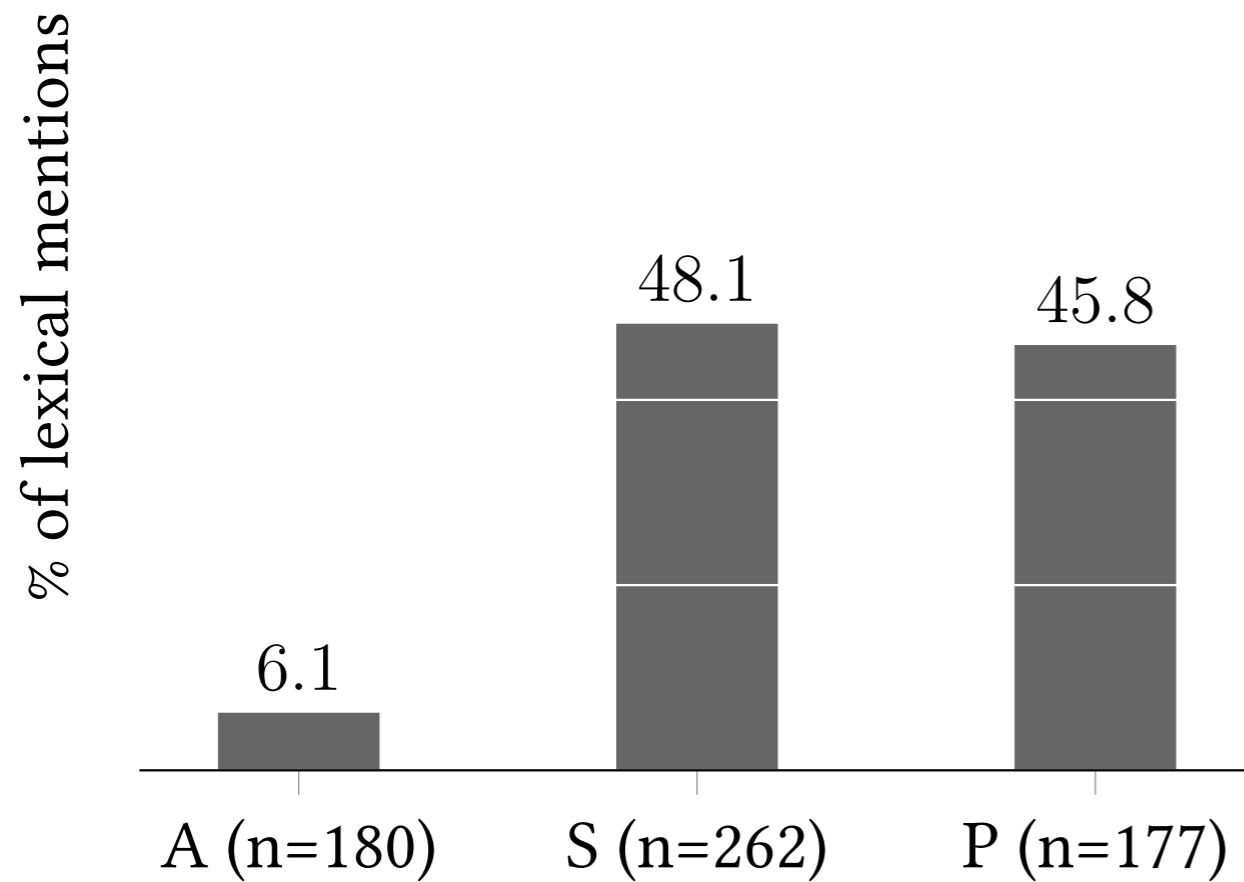
Ergativity

- Ergative-absolutive alignment: S is expressed the same way as P
- Popular topic in the 1970s and 80s
- Source of nominative-accusative alignment:
Grammaticalization of agent+topic => “subject”
- Source of ergative-absolutive alignment: ?

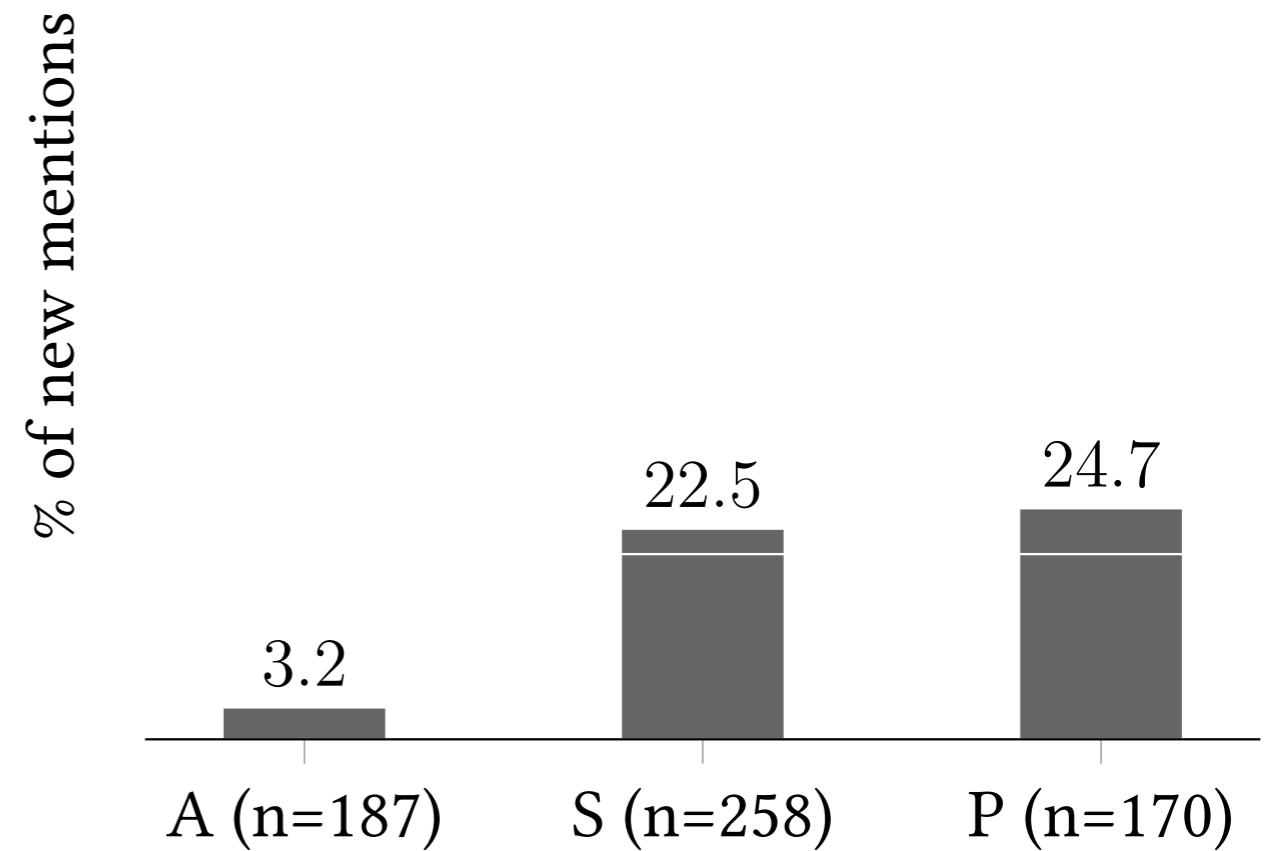
PAS: Preferred Argument Structure

- Du Bois (1987): Corpus study of Sakapultek (Mayan), which has ergative alignment
- Pear film corpus shows ergative patterning for ratios of lexically expressed and newly introduced referents in different syntactic roles
- S and P have high ratios of new/lexical referents, A has low ratios.
- Statistical preference for this distribution possible explanation for ergative alignment (“Discourse basis of ergativity”)

Ergative patterning in Sakapultek discourse

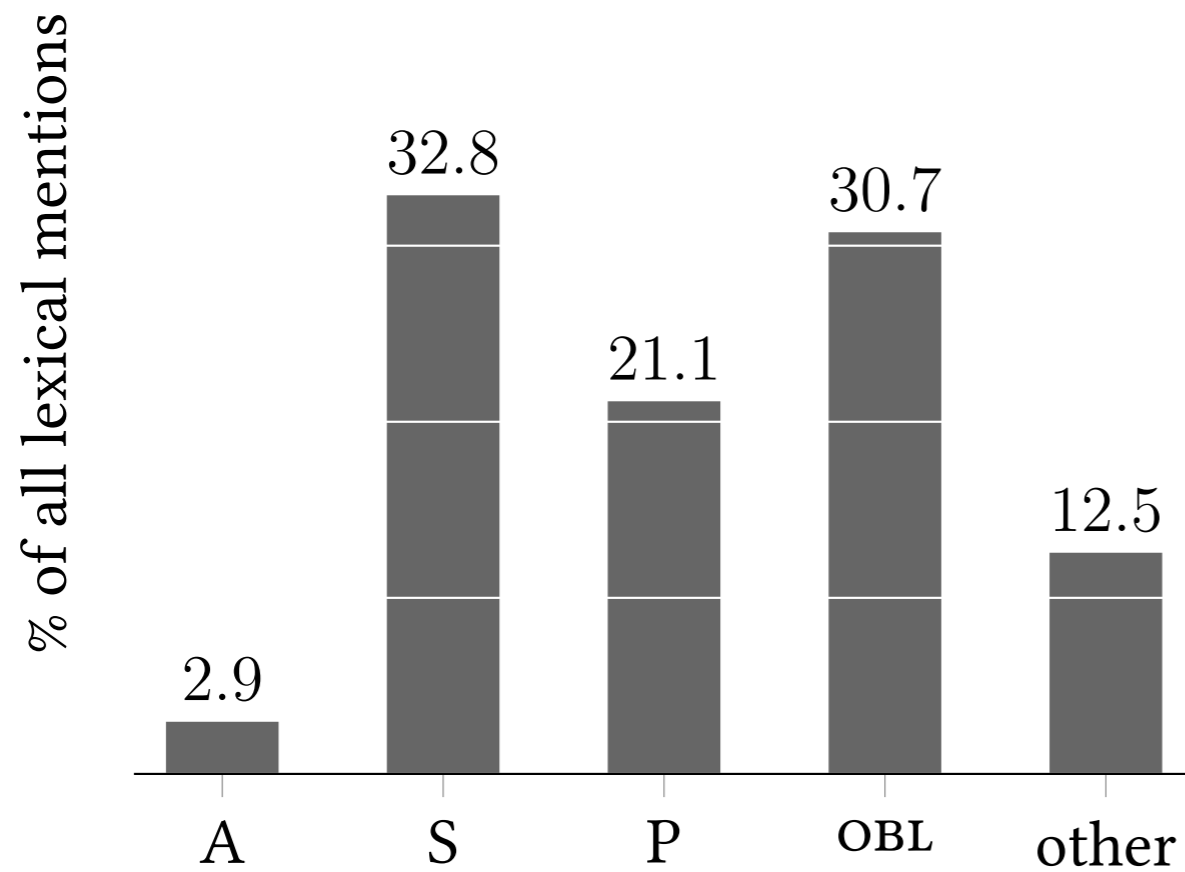


(a) Ratio of lexical mentions in core roles

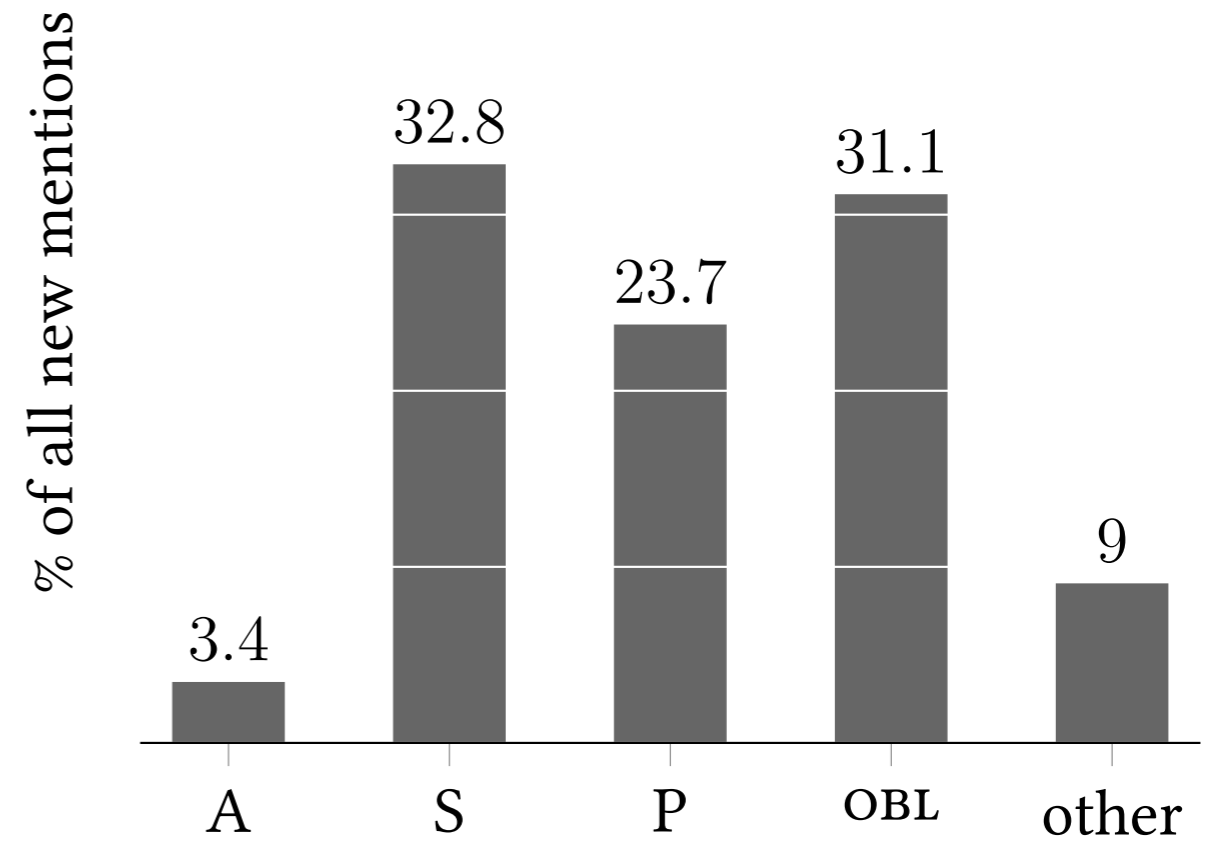


(b) Ratio of new mentions in core roles

Distribution of new & lexical mentions in Sakapultek discourse



(a) Distribution of lexical mentions (n=384)
across syntactic roles



(b) Distribution of new mentions (n=177)
across syntactic roles

Du Bois' constraints

	Grammar	Pragmatics
Quantity	One lexical argument	One new argument
Role	No lexical A	No new A

- These make up P[referred] A[rgument] S[tructure], which results in an ergative patterning of lexical/new mentions

Motivation for PAS

- Du Bois' explanation: Referent tracking is cognitively demanding on the listener
- Communication facilitated if listener "knows" where to preferably expect newly introduced referents
- Points of introduction are S and P, because of the constraints operating on A

PAS literature

- Sizable body of literature examining PAS in different languages
- Du Bois' constraints seem to hold for various languages around the world
- PAS – possibly universal?

Critics

- Haspelmath (2006), Everett (2009), Haig & Schnell (under review)
- Quantity constraints are not independent of role constraints – disfavoured new/lexical A automatically leads to few new/lexical A
- Transitive clauses with lexical P should have lower proportions of lexical A – not true for studies in Du Bois (2003)
- **Alternative explanation for pattern: Human referents tend to be topical (→ non-lexical) and agentive (→ in A position)**
- Studies taking animacy into account show that **animacy is a better predictor for lexicality**
- Many studies don't really show $A \neq S = P$ in terms of newness/lexicality, but $A < S < P$
- Introductory role of S does not seem to hold

TL;DR: Competing explanations for differences between A / S / P

- Du Bois: Syntactic roles have cognitive constraints, preferring introduction of new referents in S or P role, leading to uneven distribution of new/lexical mentions across syntactic roles.
- Critics: (In narratives,) humans are typically topical, hence non-lexical, and agentive, hence A has lower ratio of lexical mentions.

Mapudungun

- Language isolate spoken in Chile and Argentina
- Agglutinative and polysynthetic verbal morphology
- Comparably sparse nominal morphology
- Direct-inverse system

Direct-inverse

- Transitive verbs can either be direct or inverse
- Depending on the relative position of A and P on a saliency/animacy/topicality hierarchy
- More “important” referents receive A marking
- Generally: Speech act participants higher than third person
- Unambiguous marking of S/A/P and transitivity

Direct-inverse in Mapudungun

(5) Direct-inverse system in Mapudungun

a. wentru pe-fi domo ruka mew
man see-3.PAT woman house POSTP

‘The man(A/AGT) saw the woman(P/PAT) in the house.’

b. domo pe-eyew wentru ruka mew
woman see-INV.3AGT man house POSTP

‘The man(P/AGT) saw the woman(A/PAT) in the house.’

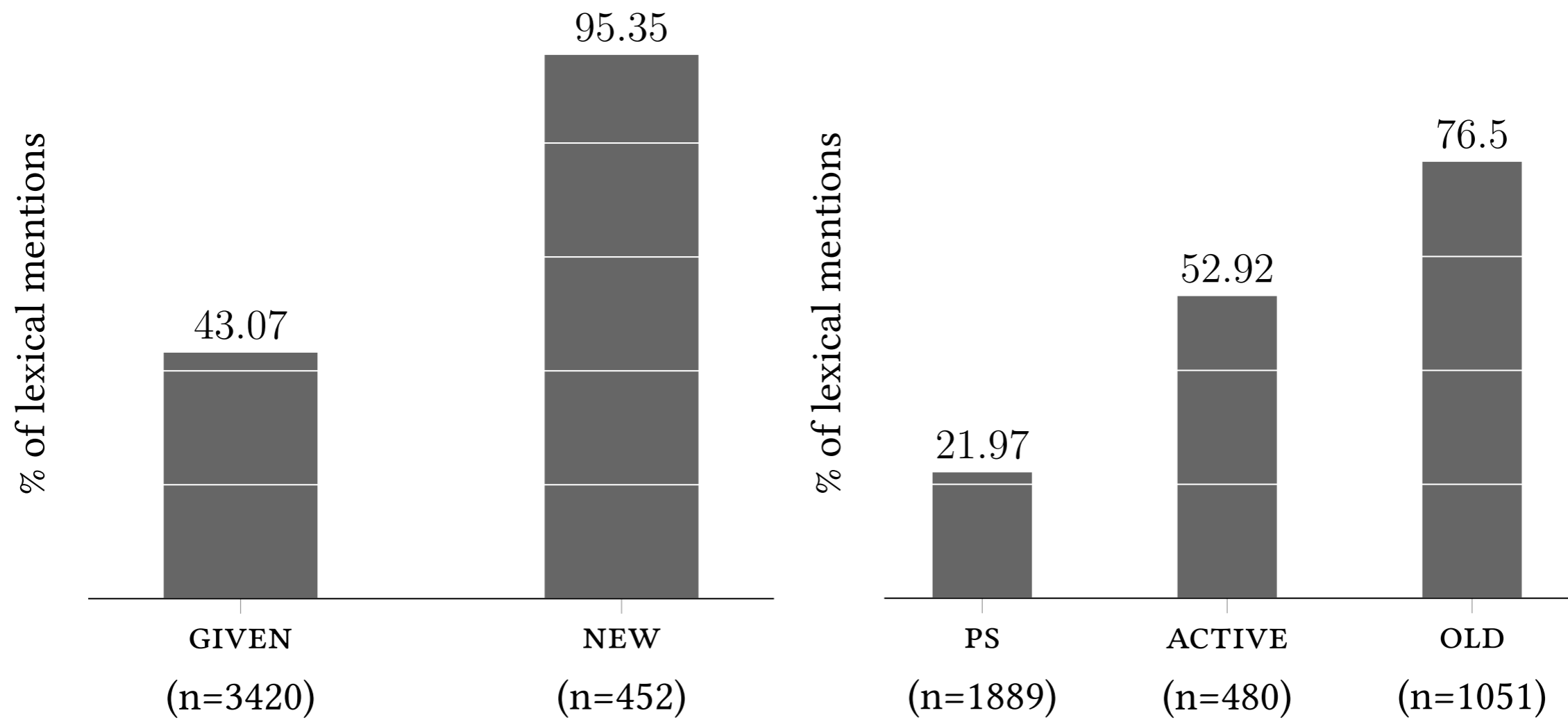
Method

- Created corpus of 25 Mapudungun folk narratives: 2997 clauses, 4180 mentions (12 from 1910, 13 from 1991)
- Every mention of a referent categorised according to
 - syntactic role (S, A, P, T, R, OBL)
 - formal expression (lexical, pronoun, \emptyset)
 - animacy (human, animate, inanimate)
 - information status (previous subject, active, old, new)
 - semantic role
- **In other studies: Often only lexicality considered, information status ignored.**

Results: PAS

- No 1-to-1 correlation of lexicality and newness
- Quantity constraints not independent of quality constraints
- S intermediate between A and P for lexicality and newness
- A and S have high, P low proportions of humans
- Not many new humans, but relatively high lexicality of humans
- S shows higher lexicality for human referents than A

Results: Information status & lexicality



(a) Lexicality of given and new core arguments

(b) Lexicality of given core arguments with different salience

Results: Quantity and role constraints

	New A	Given A	Total
New P	18	183	201
Given P	2	620	622
Total	20	803	823

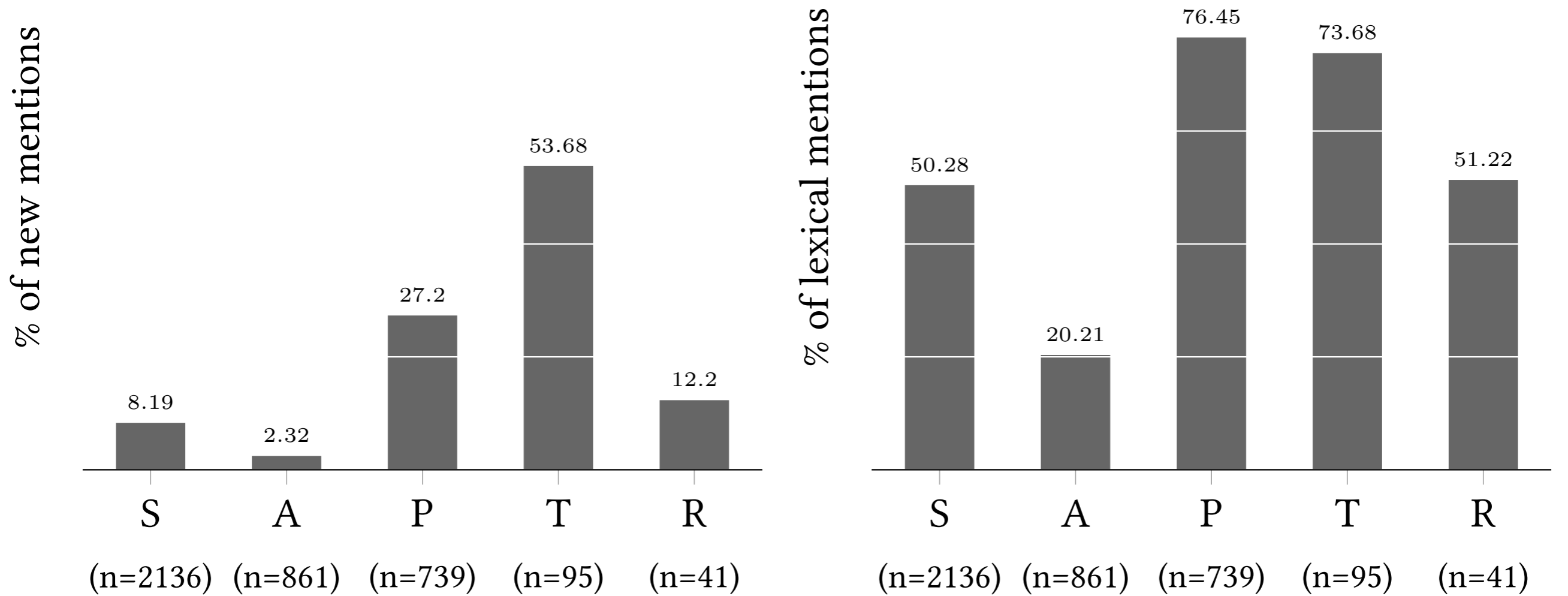
Table 10: Number of new A in clauses with new P compared to clauses with given P
(Fisher's exact test $p < 0.0001$)

Results: Quantity and role constraints

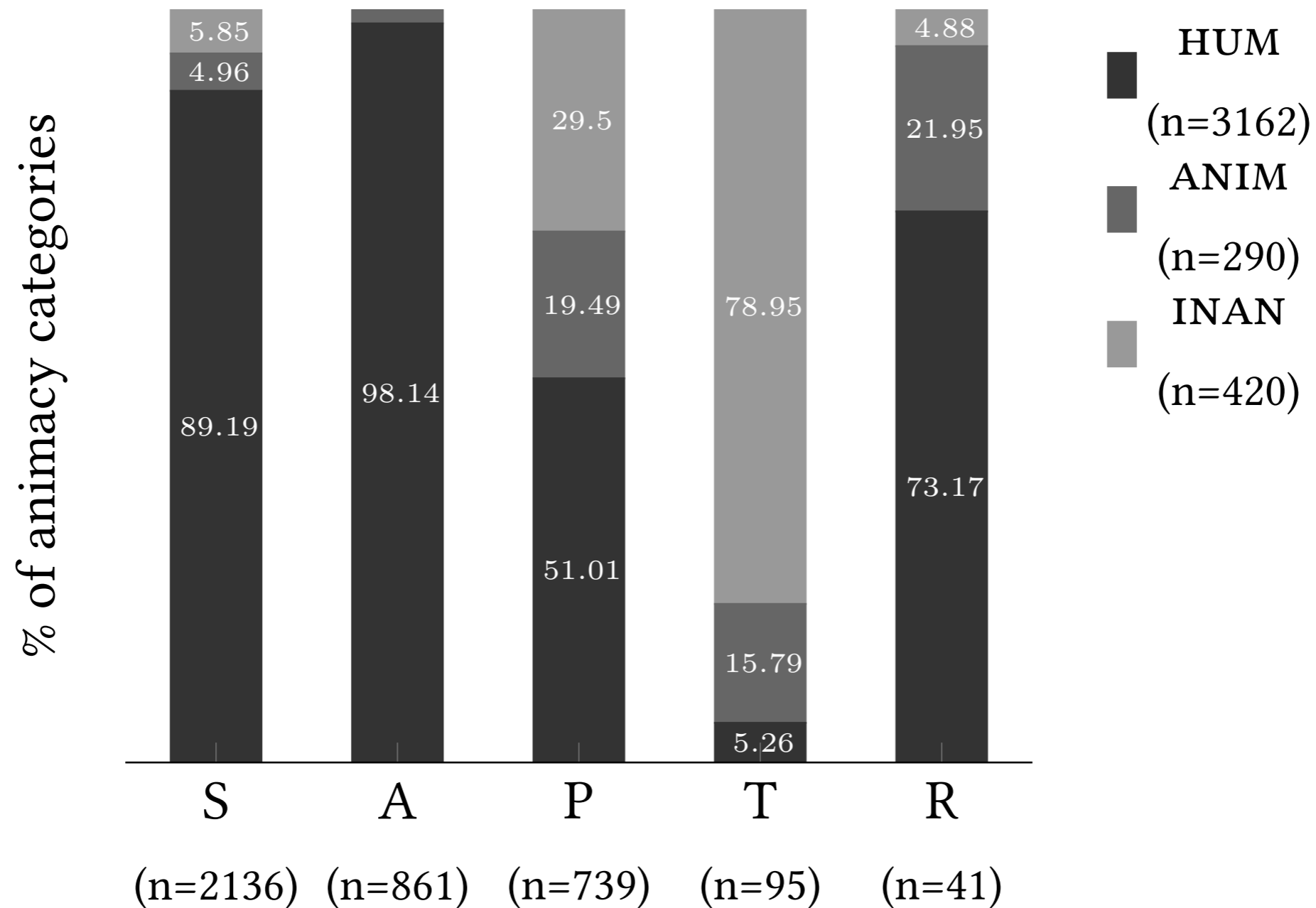
	Lexical A	Zero A	Total
Lexical P	131	434	565
Zero P	37	221	258
Total	168	655	823

(a) Lexical A in clauses with lexical P compared to clauses with zero P
(Fisher's exact test $p=0.004$)

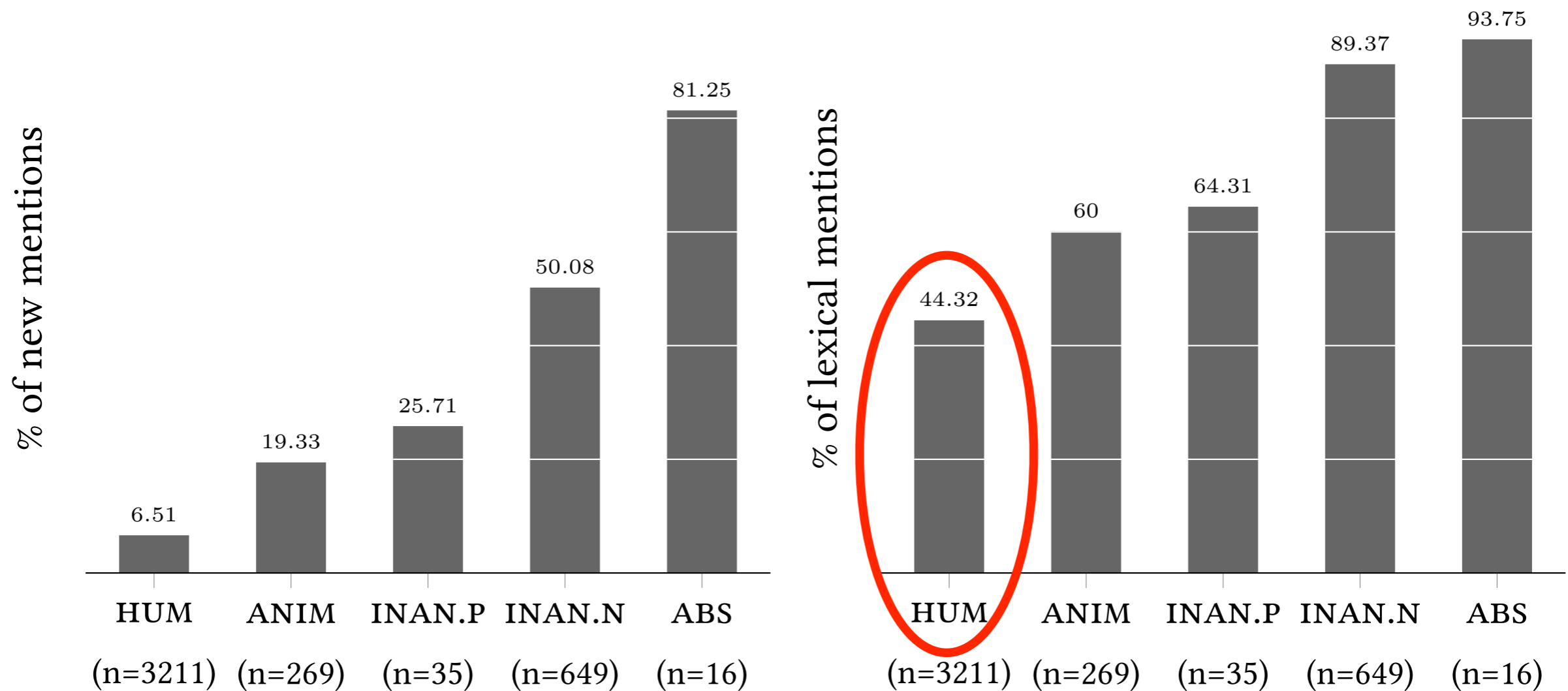
Results: $A < S < P$



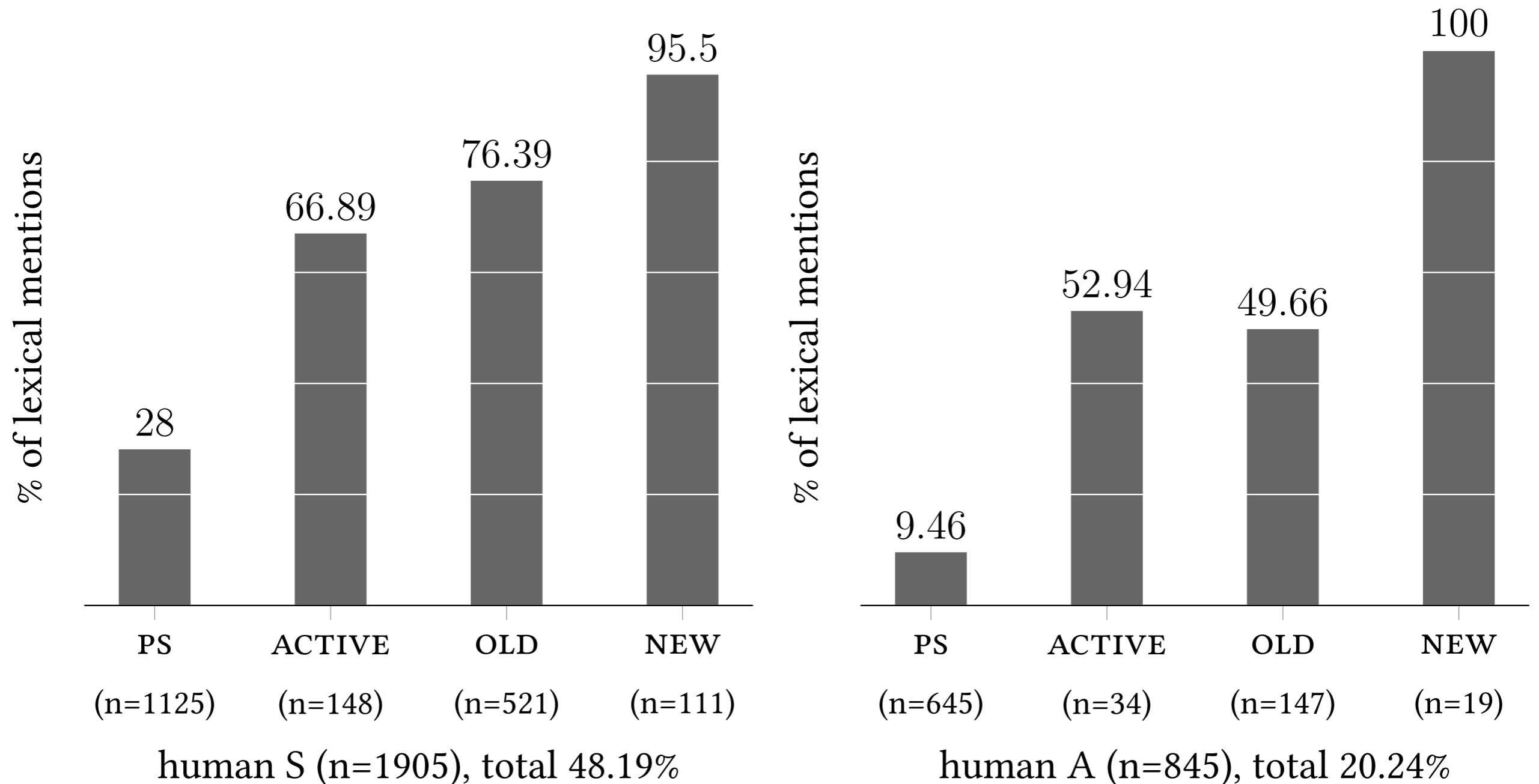
Results: Animacy and roles



Results: Animacy and newness/lexicality



Results: Human S's high lexicity



Discussion: PAS

- Humanness indeed good predictor for lexicality, as suggested by critics of PAS.
- However, (human) S has high lexicality (compared to A) regardless of information status.
 - Cannot be explained by introductory role of S in information management.
 - But no alternative explanation found.
- Important to consider information status in this type of study.

Future research and open questions

- Is the independently high lexicality of human S in my corpus coincidental?
- Large-scale study of PAS including information status
 - Formal expression of referents is representative of saliency only to a limited degree.
 - Information status important in assessing syntactic roles' function in information management.
 - Cross-linguistic differences in correlation between expression and saliency?

Du Bois, John W. (1987). “The Discourse Basis of Ergativity”. In: *Language* 63.4: 805–855.

Du Bois, John W., Lorraine E. Kumpf, and William J. Ashby, eds. (2003). *Preferred Argument Structure. Grammar as architecture for function*. Amsterdam: John Benjamins Publishing Company.

Everett, Caleb (2009). “A reconsideration of the motivations for preferred argument structure”. In: *Studies in Language* 33.1: 1–24.

Haig, Geoffrey and Stefan Schnell (Under review). “The discourse basis of ergativity revisited”. URL: http://www.academia.edu/12395366/The_discourse_basis_of_ergativity_revisited.

Haspelmath, Martin (2006). “Preferred Argument Structure: Grammar as Architecture for Function (Review)”. In: *Language* 82.4: 908–912.