

Warlpiri people are warned that this talk contains pictures and names of persons who have passed away.

How word order does (not) change: Warlpiri flexible word order and contact with English

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universität freiburg



Australian
National
University

I gratefully acknowledge the Warlpiri people who provided the material used in this presentation. I acknowledge that the Warlpiri data was recorded on Warlpiri and Gurindji land and I pay my respects to their elders past and present.



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Starting point

Flexible word order common in Australian languages, but:

1. Governing principles not understood in all detail and
2. Effects of contact with English unclear

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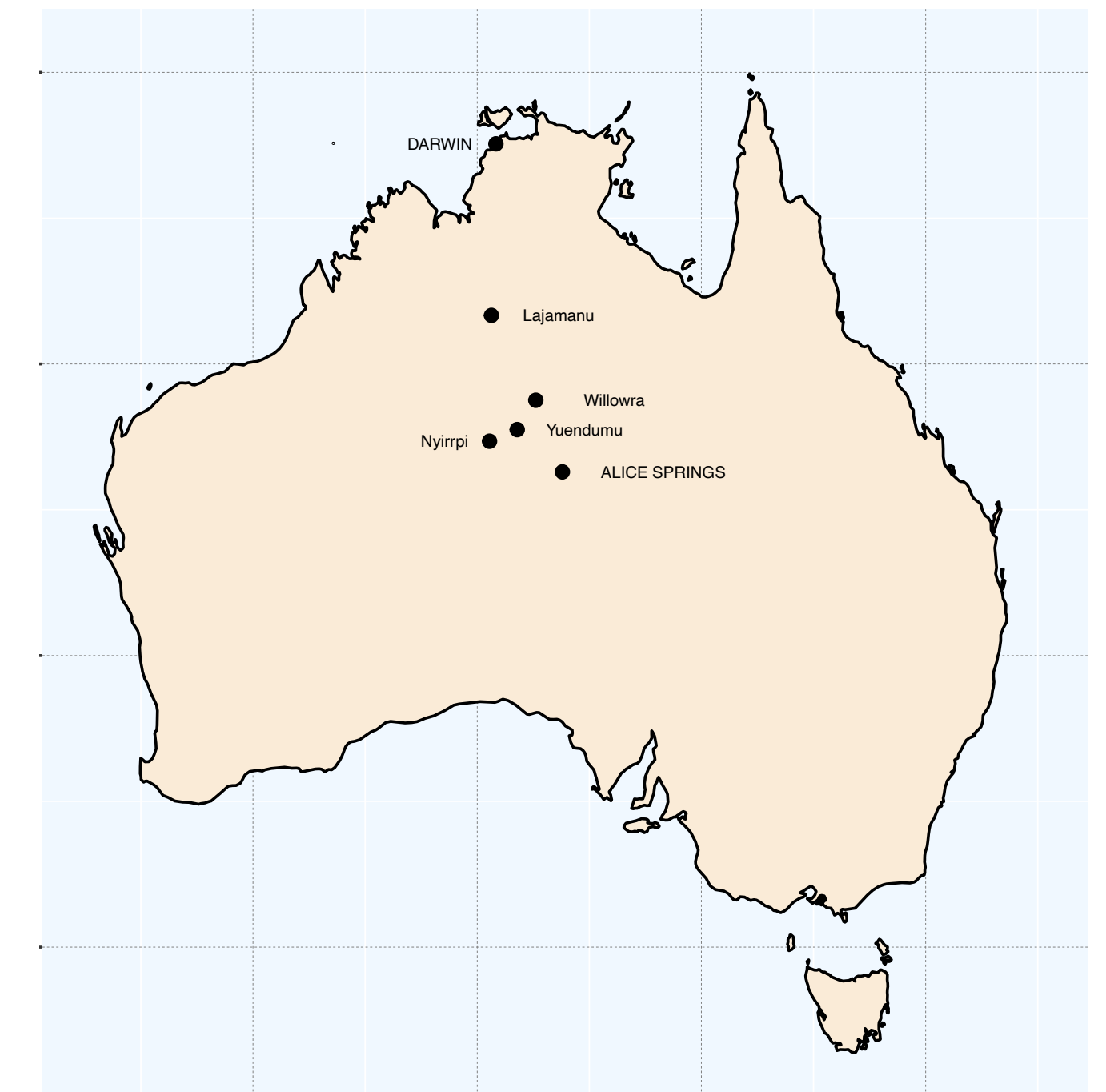
Under-documentation, no long written tradition, and conflicting evidence

(e.g. Langlois 2004, Wilmoth et al. 2022 for Pitjantjatjara)

The solution: Warlpiri!

- One of the best-documented Australian languages
(e.g. Hale 1983; Nash 1980; Simpson 1983; Swartz 1991; O'Shannessy 2006)
- First documentation with (available) audio recordings in the 1960s
(Hale 1966-1967a, b)
- Previous studies point to language change, but no recent studies across all communities (Bavin & Shopen 1985, O'Shannessy 2006)

The four Warlpiri communities



Corpus-based analysis of spoken narratives:

1. Has word order changed in the last decades?
= Towards a more stable word order and SVO
2. What variables influence word order and have they changed?

Background

Warlpiri & Flexible word order



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Warlpiri

- Spoken by about 2,592 speakers (2021 ABS Census) in Central Australia
- Four major communities: Lajamanu, Willowra, Nyirrpi, Yuendumu

The four Warlpiri communities



Warlpiri

- Increasing contact with English from 1880s, particularly from 1940s
- Language change in various areas, incl. the emergence of Light Warlpiri in Lajamanu (O'Shannessy 2006)
- Multilingual: Warlpiri, Light Warlpiri, Kriol, Aboriginal Australian English, Standard Australian English, neighboring languages

The four Warlpiri communities



Flexible word order

Famously flexible word order: **VS** or **SV**

- (1) *jarnku* *=pala* *ya-nu* *yapa* *jirrama*
separately AUX.3DL.SBJ go-PST person two

‘Two people went separately.’ (2.19-056; Hale 1966-1967a)

- (2) *ngarrkangkarla* *=lpa* *=lu* *ya-nu*
big.group.of.people AUX.PST.IMPF AUX.3PL.SBJ go-PST

‘The big group of people went.’ (2.19-113; Hale 1966-1967a)

Flexible word order

Famously flexible word order: VO or OV

- (3) *yinya* *ka* *=lu* *karnta-ngku* *karla* *miyi-pardu* *yarla*
this AUX.PRS =AUX.3PL.SBJ woman-ERG dig.NPST vegetable-little yam

‘Over there, the women are digging up the yams.’ (2.19-066-7; Hale 1966-67a)

- (4) *kapi* *miyi* *yarla* *warru* *karla*
AUX.FUT vegetable yam around dig.NPST

‘(We) will dig up yams all around.’ (2.19-014; Hale 1966-1967a)

Flexible word order

Even more complex because of discontinuous nominal expressions:

- (5) *kurdu* *jinta* *ka* *ya-ni-rni* *karnta*
child.ABS one.ABS AUX.PRS go-NPST-here woman.ABS

‘One girl goes.’ (ywa02-034; O’Shannessy 2022)

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> Linked by the same case-marking

Flexible word order

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‘One girl goes.’ (ywa02-034; O’Shannessy 2022)

- > **Functional**, but not syntactic unit (“nominal expression”, must be same IU)
- > **Subject-Verb-Subject** order

Flexible word order

Context, world knowledge and semantic properties determine function:
(Simpson 2005)

(6)	<i>murnma</i>	<i>=lu</i>	<i>youngfella</i>	<i>paka-rnu</i>	<i>ngaju-ku</i>	<i>father</i>
	before	AUX.3PL.SBJ	young.fella.ABS	kill-NPST	1SG-DAT	father.ABS

Before, (they) killed my father *as a young fella.*' (j17-011; Ross 2009)
(vs. '*Before, (they) killed my young father.*')

Evidence for influence from information structure

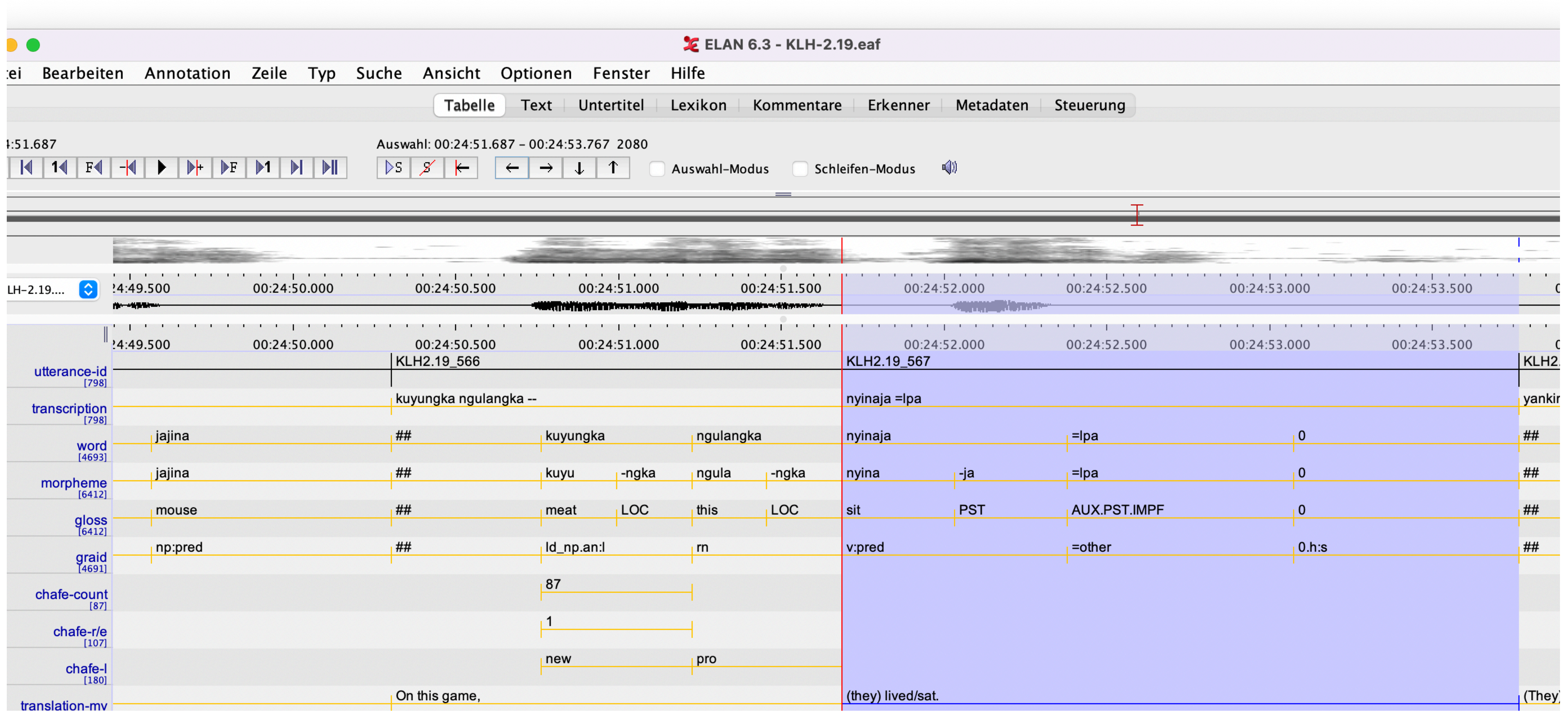
(O'Shannessy 2006, 2016; Swartz 1991; Hale et al. 1995; Hale 1992, Simpson 2006)

But: “[w]e are a long way from a full understanding of information structure possibilities in Warlpiri, and much of what I have written here is tentative and requires serious investigation of the Warlpiri corpus” (Simpson 2006: 512)

Corpus-based analysis of spoken narratives:

1. Has word order changed in the last decades?
= Towards a more stable word order and SVO
2. What variables influence word order and have they changed?

Corpus



Many thanks to the speakers and researchers sharing their language and their data with me!

- Datasets: from 1960s and 2000s
- 1852 clauses
- Genre: spoken narratives
- No fieldwork possible due to COVID-19, use of existing data: Daniels 2009; Hale 1966-1967a, b; Morton 2009a-e; Nelson 2009; O’Shannessy 2004a-e, 2022; Presley 2009; Ross 2009

	1960s	2000s
Number of clauses	835	1017
Speaker age	66, 20s	40, 50s, 63, 64, 65, 71
Genre	Spoken narratives	Spoken narratives
Communities	Willowra	Willowra, Lajamanu, Yuendumu

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Older recordings:

- Plant descriptions
- Traditional stories/old way of life

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Older recordings:

- Plant descriptions
- Traditional stories/old way of life

Newer recordings:

- Picturebook stories
- Traditional stories

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- Segmented into intonation units
- Translated, glossed
- Annotated with GRAID (Haig & Schnell 2014), reference tracking (Schiborr et al. 2018), and other annotation schemes

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(7)	<i>kurdu</i>	<i>jinta</i>	<i>ka</i>	<i>ya-ni-rni</i>	<i>karnta</i>
	child	one	AUX.PRS	go-NPST-here	woman
	np.h:s	rn_s	aux	v:pred	ne_dc_rn_s

‘One girl goes.’ (Ywa02-034; O’Shannessy 2022)

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‘One girl goes.’ (Ywa02-034; O’Shannessy 2022)

np = nominal

h = human

s = intransitive subject

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aux = auxiliary

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v = verb

pred = predicate

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‘One girl goes.’ (Ywa02-034; O’Shannessy 2022)

ne = nominal expression (vs. secondary predicate, right/left dislocation, etc.)
dc_rn = non-adjacent element to the right side of nominal
s = intransitive subject

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‘One girl goes.’ (Ywa02-034; O’Shannessy 2022)

Includes option for ambiguity!

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‘One girl goes.’ (Ywa02-034; O’Shannessy 2022)

- Encompass detailed analysis
- Can capture complex picture
- Can be used in future studies for other research questions

Variables included in the analysis:

- Referential givenness/newness
- Animacy
- Lexicality
- Transitivity
- Antecedent distance
- Heaviness of nominal expression (how many words/morphemes)
- Speaker age
- ‘Topicality’ (such as frequency of referent per narrative/in last clauses)
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- Word(s)-/speaker-/community-/genre-specific tendency for a word order
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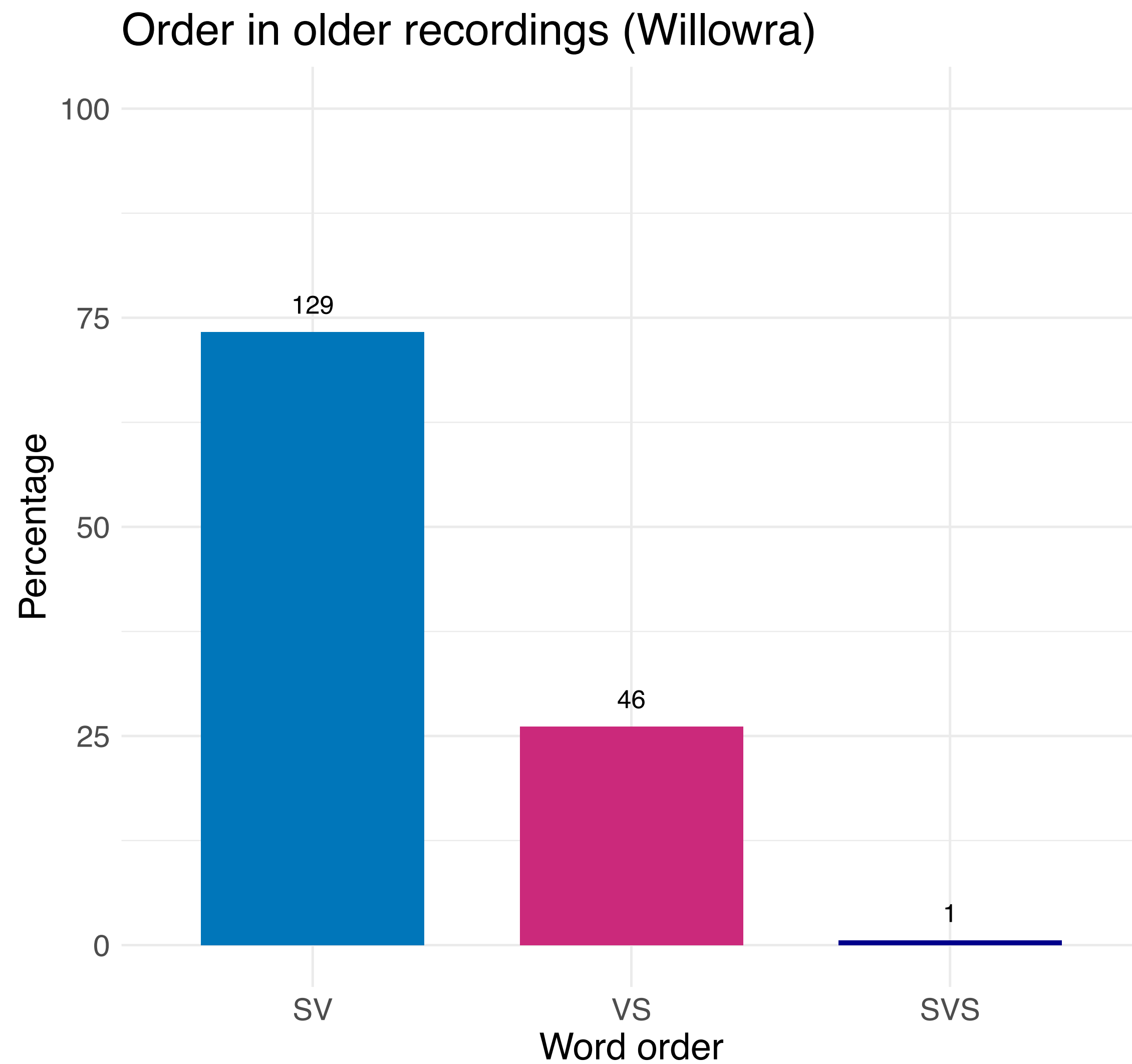
Corpus-based analysis of spoken narratives:

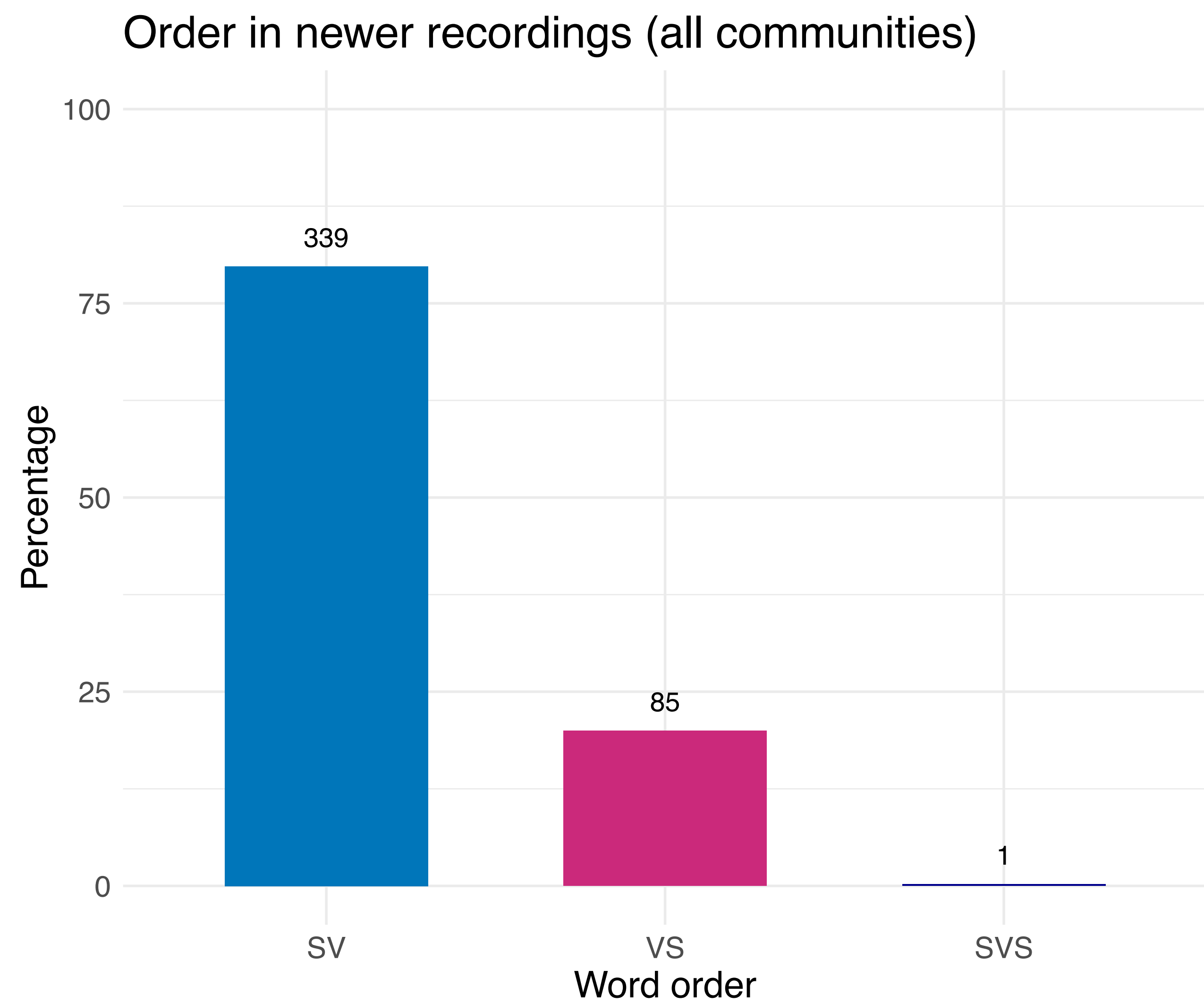
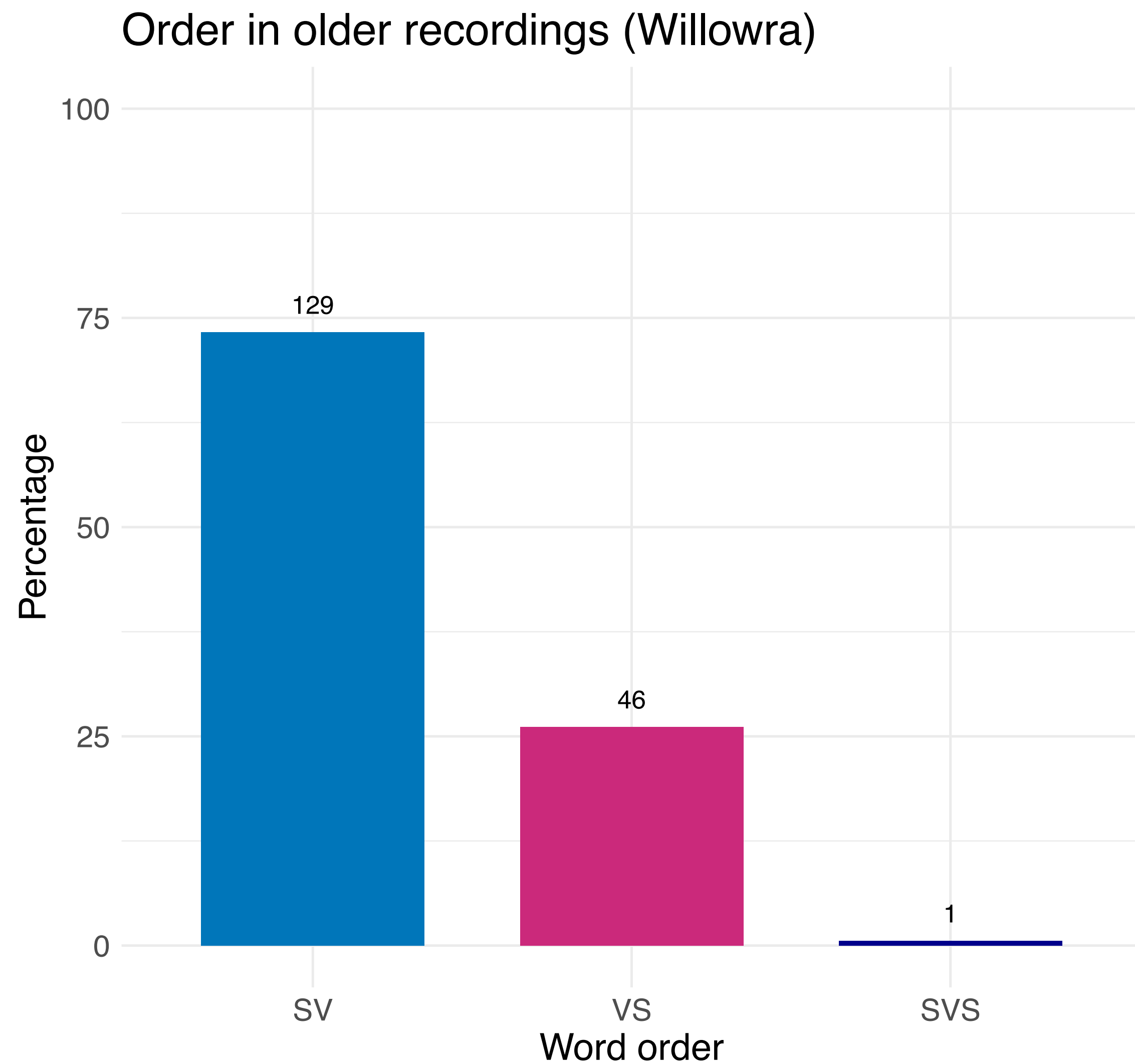
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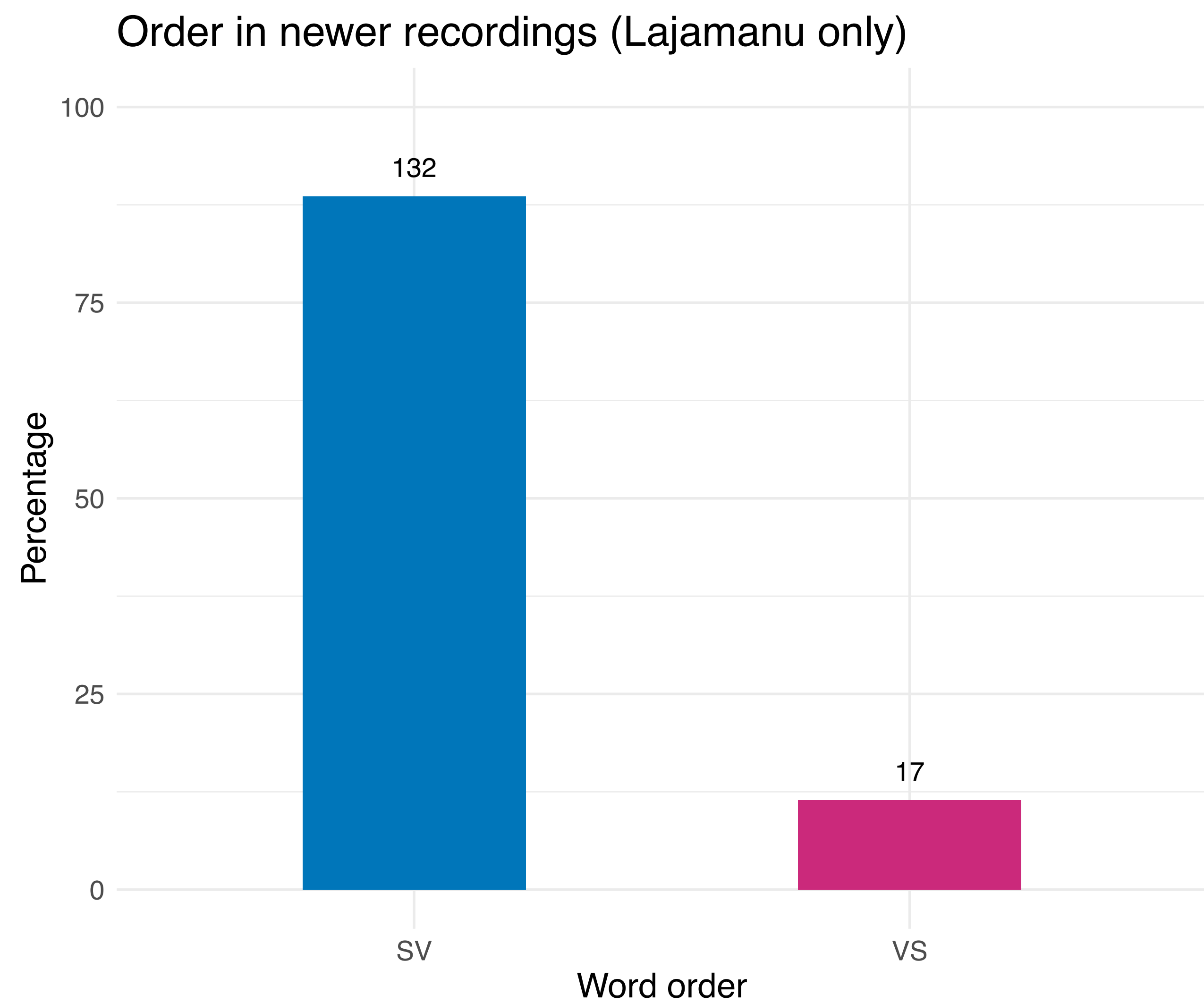
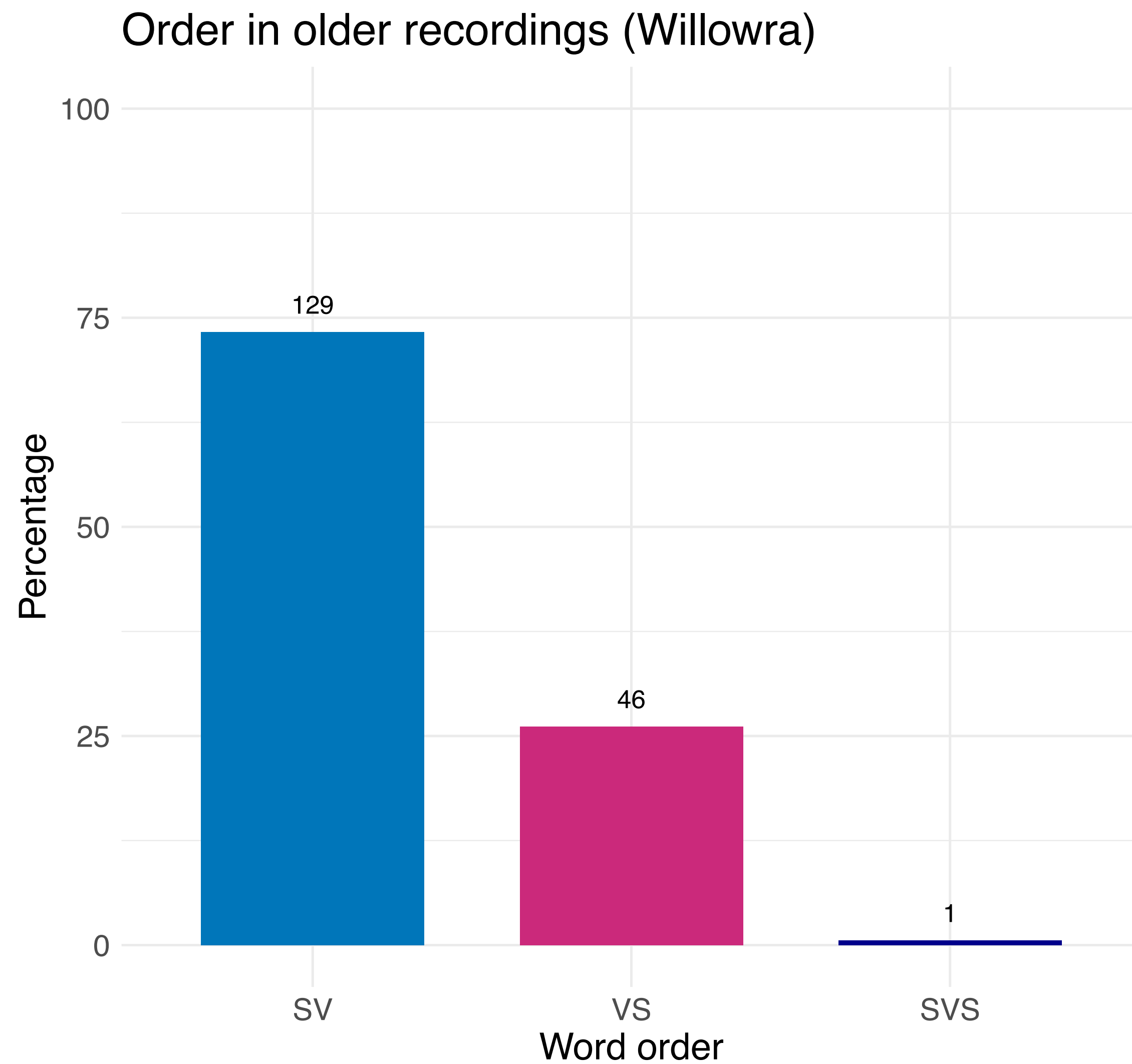
Order of subject and verb



Picture of Warlpiri speaker Sam Japangardi, taken by David Nash.



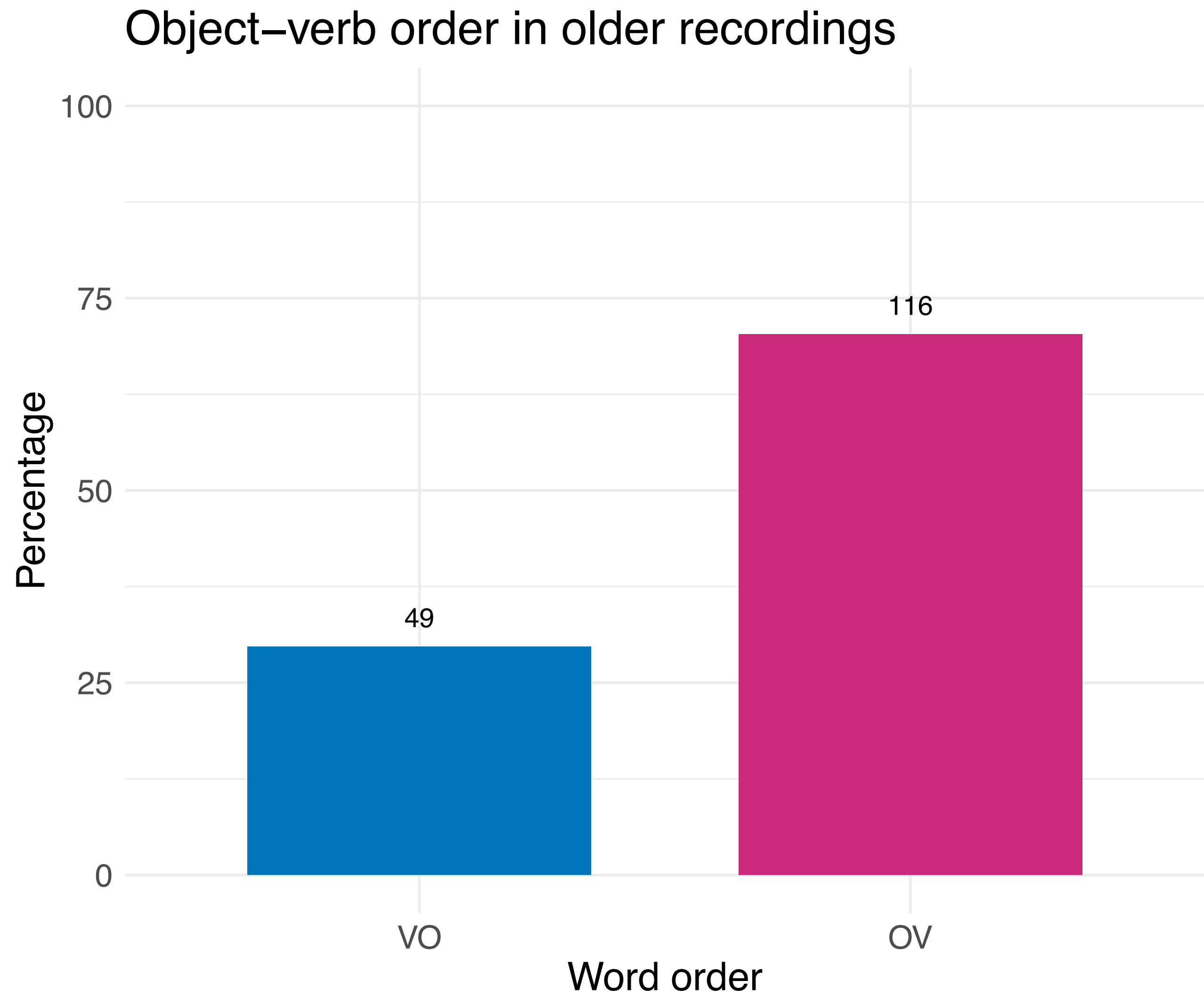


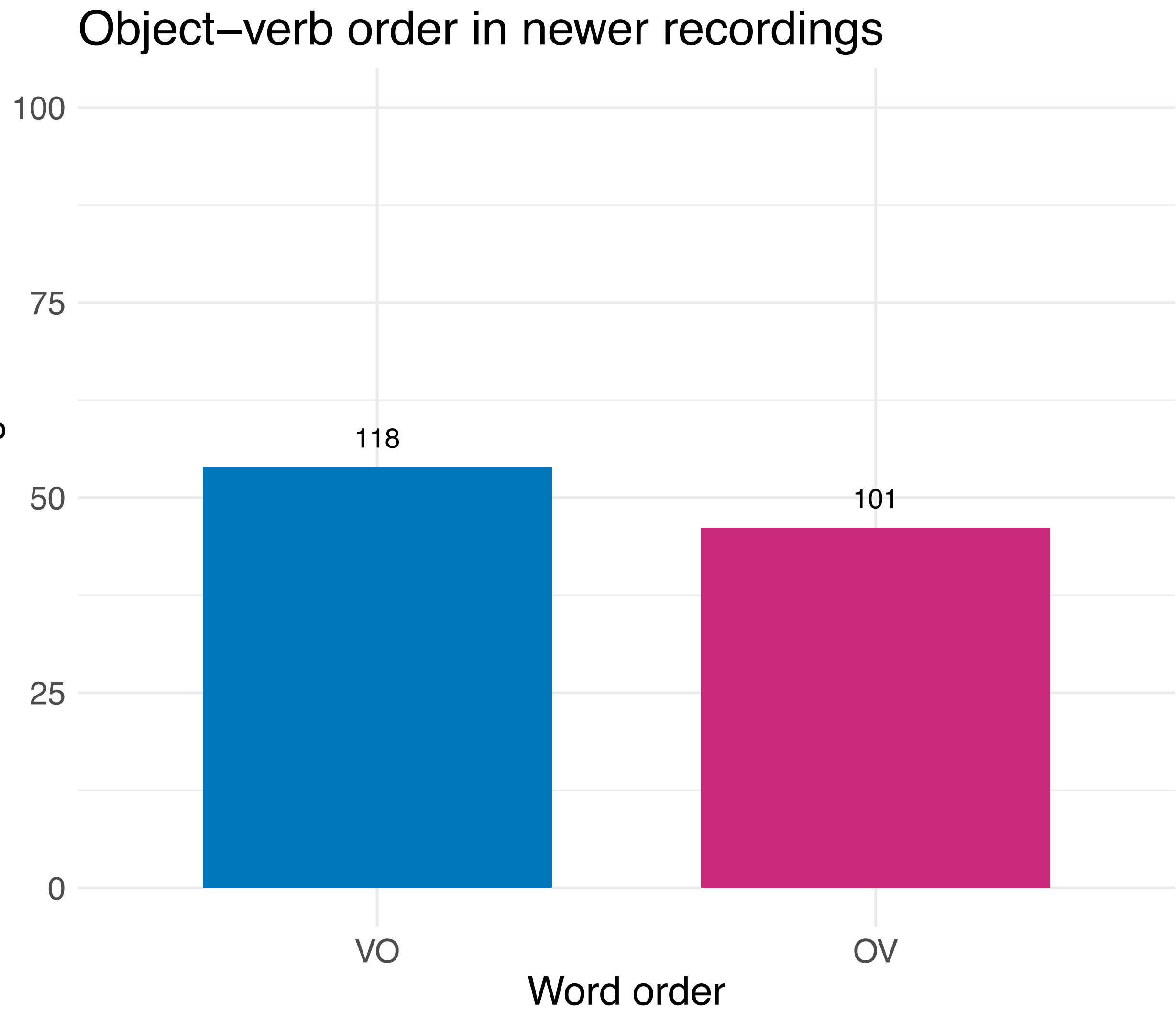
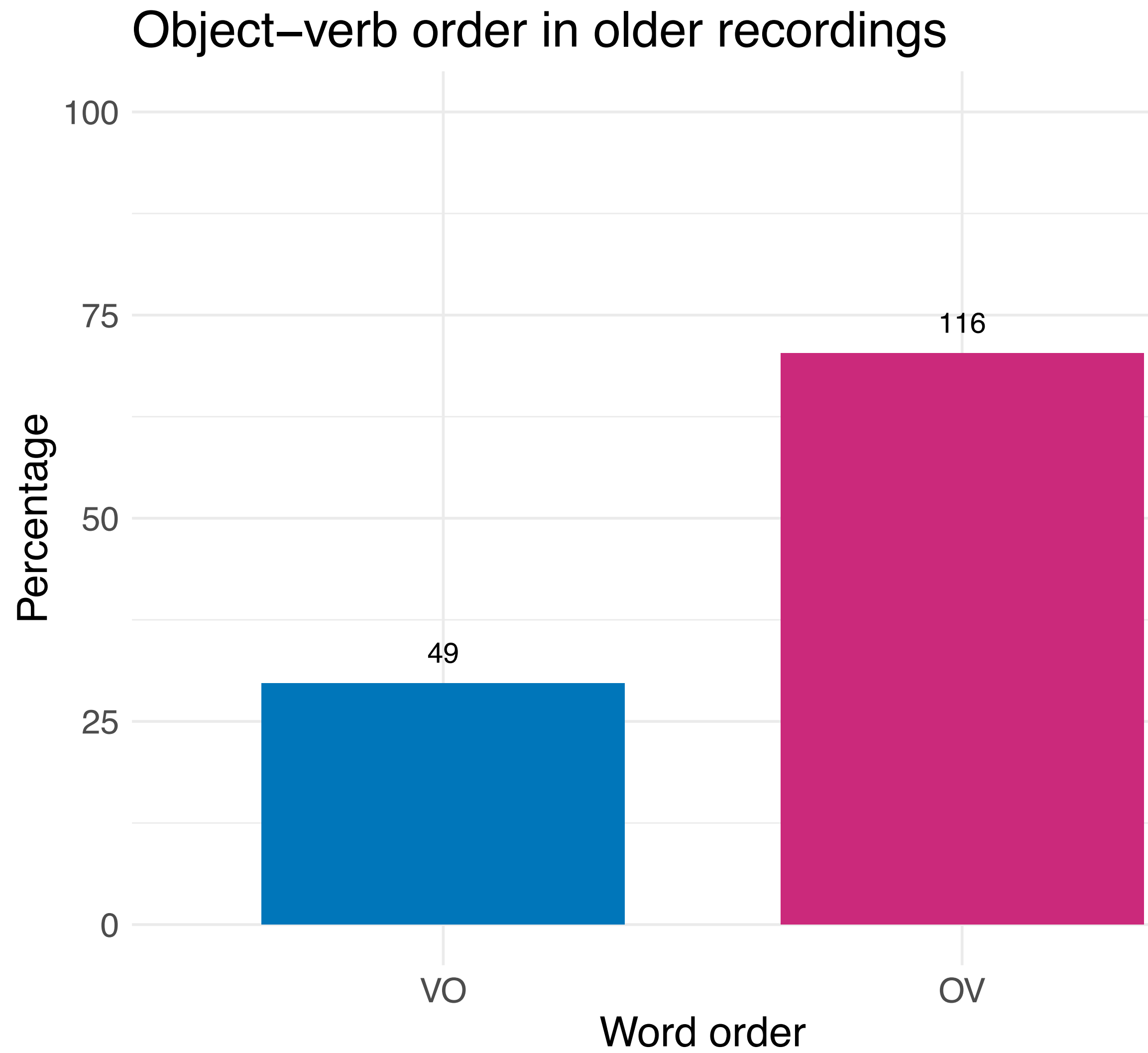


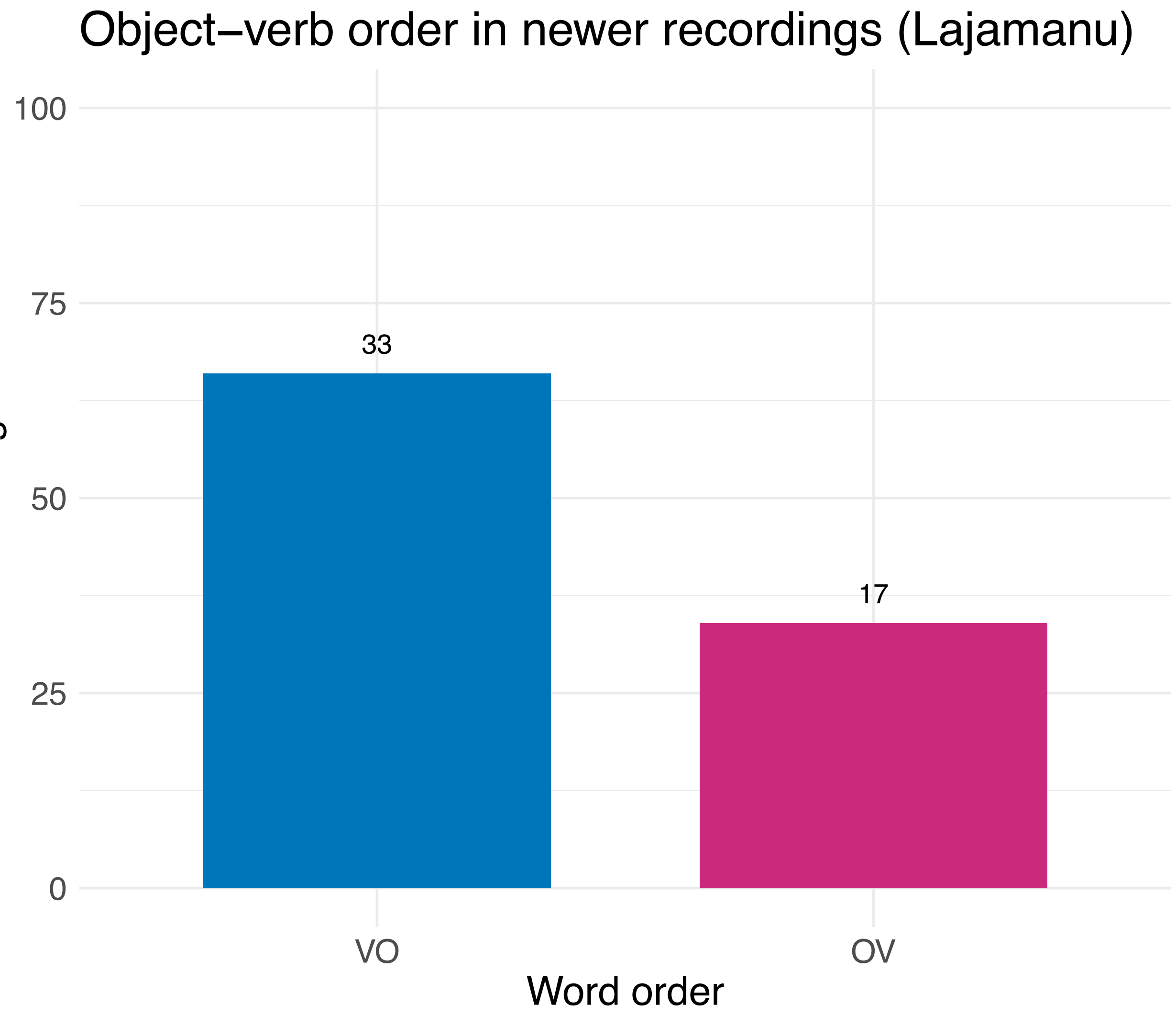
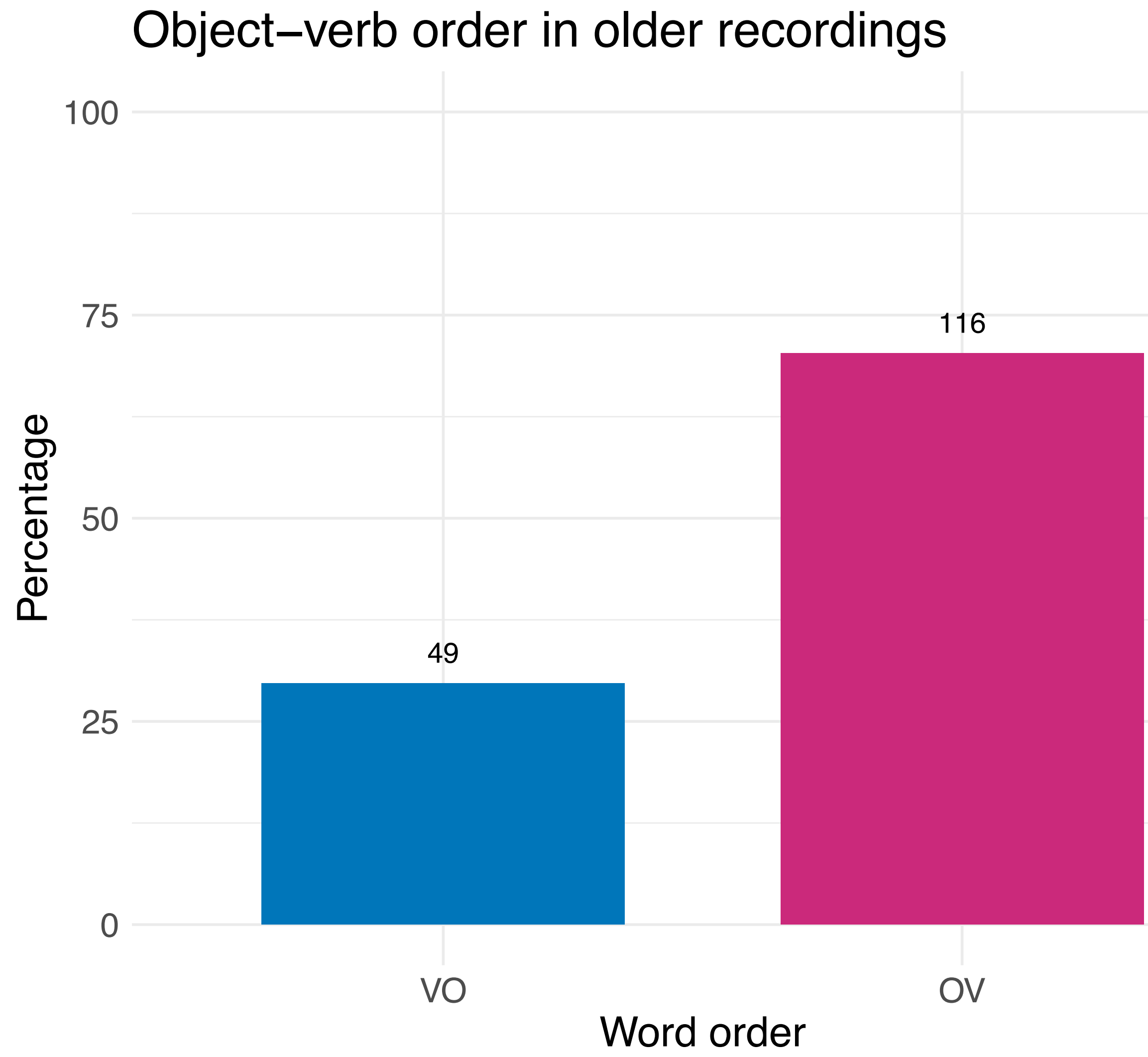
Order of object and verb



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Variables included in the analysis:

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Why referential givenness/newness?

- Suggested as a relevant and relatively straightforward variable in literature
(e.g. Swartz 1991; Simpson 2006)
- Preliminary statistical modeling suggests statistical significance for most datasets
- But: complex picture!

Limitation

- In this talk just given/new/bridging without antecedent distance
- In this talk just order of verb and subject (but note Simpson 2006)

Reference tracking

Each referent receives their own unique number. First mentions also receive the tag new, bridging (inferable) or unused (e.g. the sun), based on Schiborr et al. (2018).

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New

While playing around, (they) continue to eat, (they) go along killing (meat) still towards the camp. (063)
(The game) is still in an uncooked form, then. (064)
(They) carry the meat here again. (065)
Over there, (066) the women dig for bush potatoes. (067)

(8)	<i>kapi</i>	<i>ngurlu-pardu</i>	<i>ka</i>	<i>=lu</i>	<i>0</i>	<i>yurupa-rni</i>
	and	seeds-little	AUX.PRS	=AUX.3PL.SBJ	0	grind-NPST
		035			033	
		<i>new</i>				

‘(They) are grinding little seeds.’ (2.19-068; Hale 1966-67a)

Bridging

Inferable referent (e.g. frame semantics, context) (Schiborr et al. 2018: 15)

(9) ‘(It) bumped a **tree**, a big one.’ (wwa02-083-085; O’Shannessy 2022)

yarlpa

wanti-ja

modikayi-ki

branch

fall-PST

car-DAT

032

030

bridging

‘A branch fell over the car.’ (wwa02-086; O’Shannessy 2022)

Given

(10) *ngula-jangka =ju* *kuuku* *ya-ninja-ya-rnu*
this-after =JU monster go-INF-AM-PST
003
new

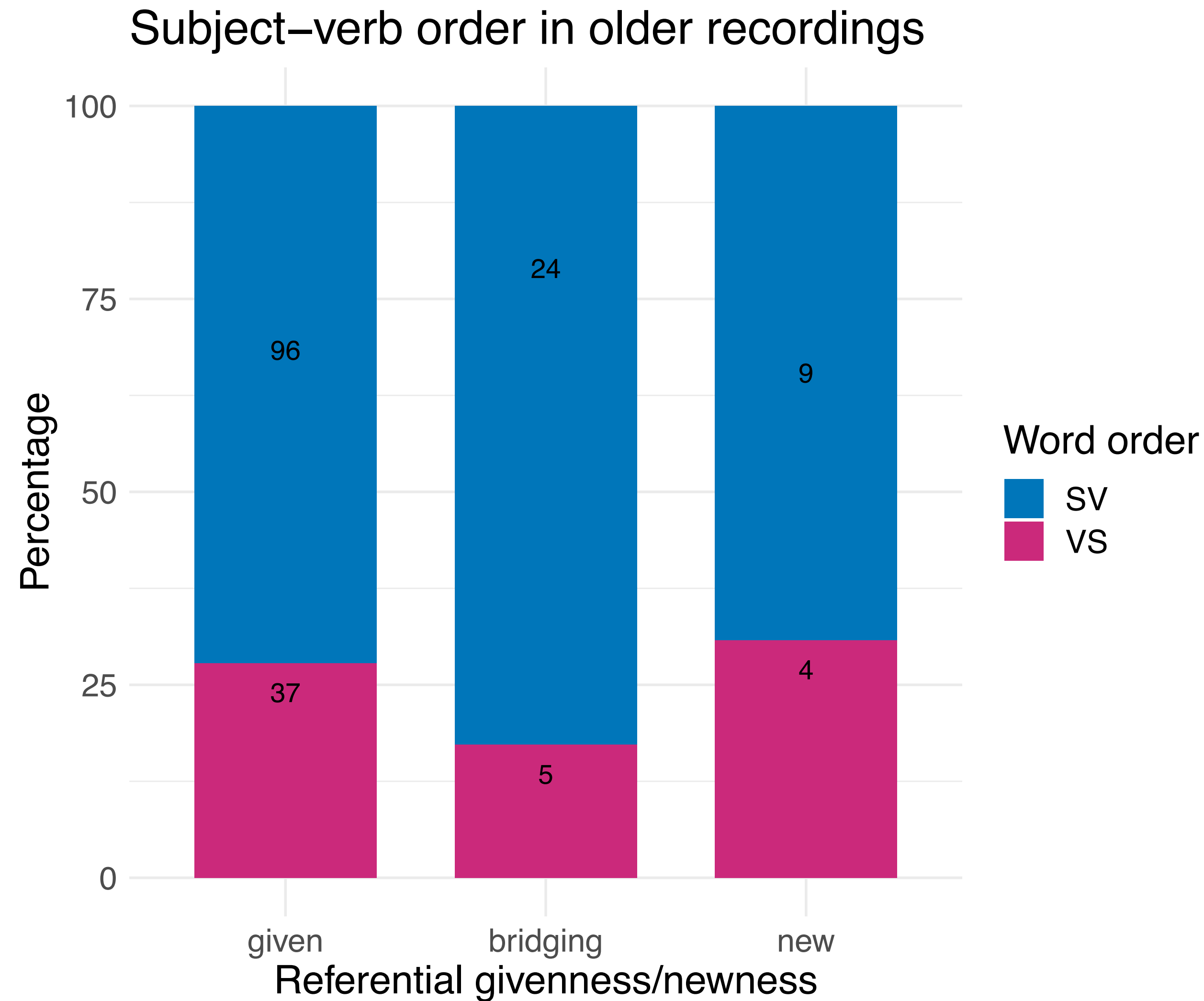
‘After this, a monster came along.’ (wa29-01-004; O’Shannessy 2004d)
[...]

<i>kuuku-ngu</i>	<i>ka</i>	<i>ma-ni</i>	<i>jarntu</i>
monster-ERG	AUX.PRS	get-NPST	dog
003			002

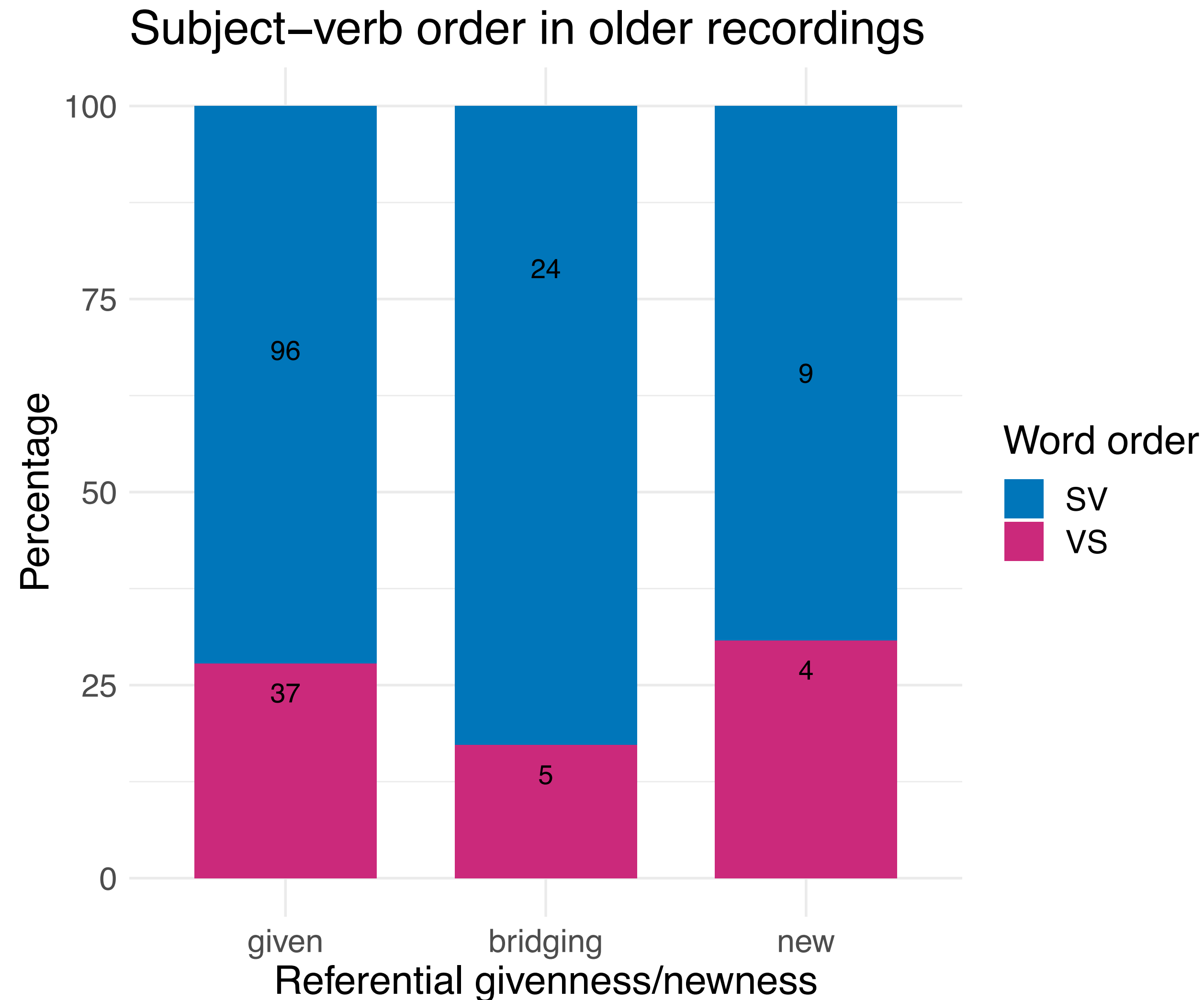
‘The monster gets the dog.’ (wa29-1-011; O’Shannessy 2004d)

In older recordings, bridging referents prefer SV more than given/new referents.

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Probably because of plant descriptions

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Older recordings:

- Plant descriptions
- Traditional stories/old way of life

Newer recordings:

- Picturebook stories
- Traditional stories/dreamings

The Nganjawarli, this Nganjawarli is a vegetable food. (It) sits in the spinifex plains. It grows far away in the sandy creek. On the two sides (of the sandy creek), the Marna grass and the Mulga tree grow. The Nganjawarli sits in Mulga country, for example. And this one -- is with thorns too, the berry is standing upwards and away. This stem of the bush becomes big up there. (The berry) is unripe/green in the beginning. (K01-0322-0334)

Plant descriptions

- Series of plant descriptions with frequent mentions of the same plants/habitats
- Reference “reset” for each description, but plants/habitat are always bridging (rather than new)
- Further increase in bridging frequency because of description of different plant parts

The Nganjawarli, this Nganjawarli is a vegetable food. (It) sits in the spinifex plains. It grows far away in the sandy creek. On the two sides (of the sandy creek), the Marna grass and the Mulga tree grow. The Nganjawarli sits in Mulga country, for example. And this one -- is with thorns too, the berry is standing upwards and away. This stem of the bush becomes big up there. (The berry) is unripe/green in the beginning. (K01-0322-0334)

Nganjawarli or parts of it

The Nganjawarli, this Nganjawarli is a vegetable food. (It) sits in [the spinifex plains](#). It grows far away [in the sandy creek](#). On [the two sides \(of the sandy creek\)](#), the Marna grass and the Mulga tree grow. The Nganjawarli sits in [Mulga country](#), for example. And this one -- is with thorns too, the berry is standing upwards and away. This stem of the bush becomes big up there. (The berry) is unripe/green in the beginning. (K01-0322-0334)

[Plant habitat](#)

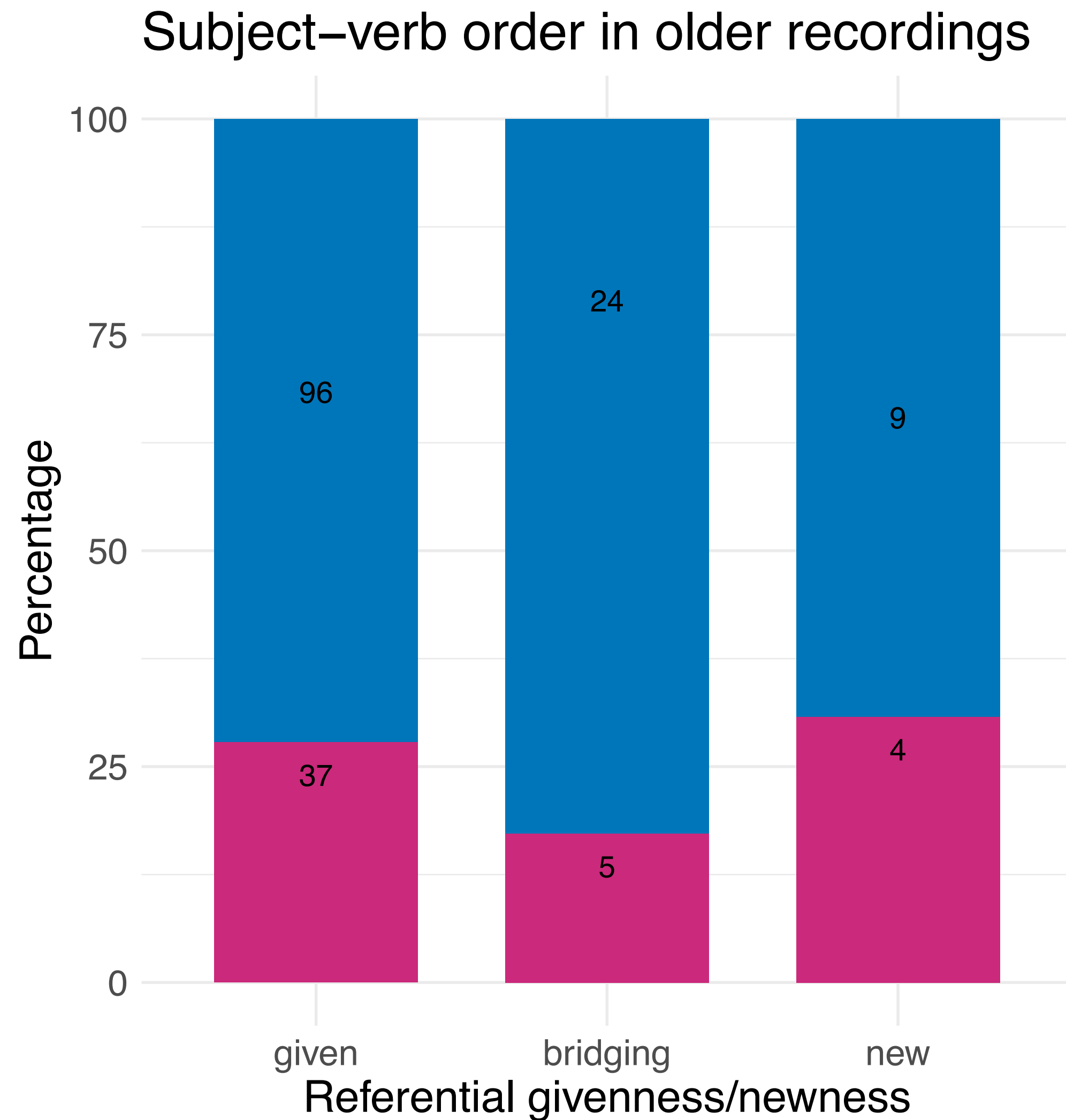
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[Other plants](#)

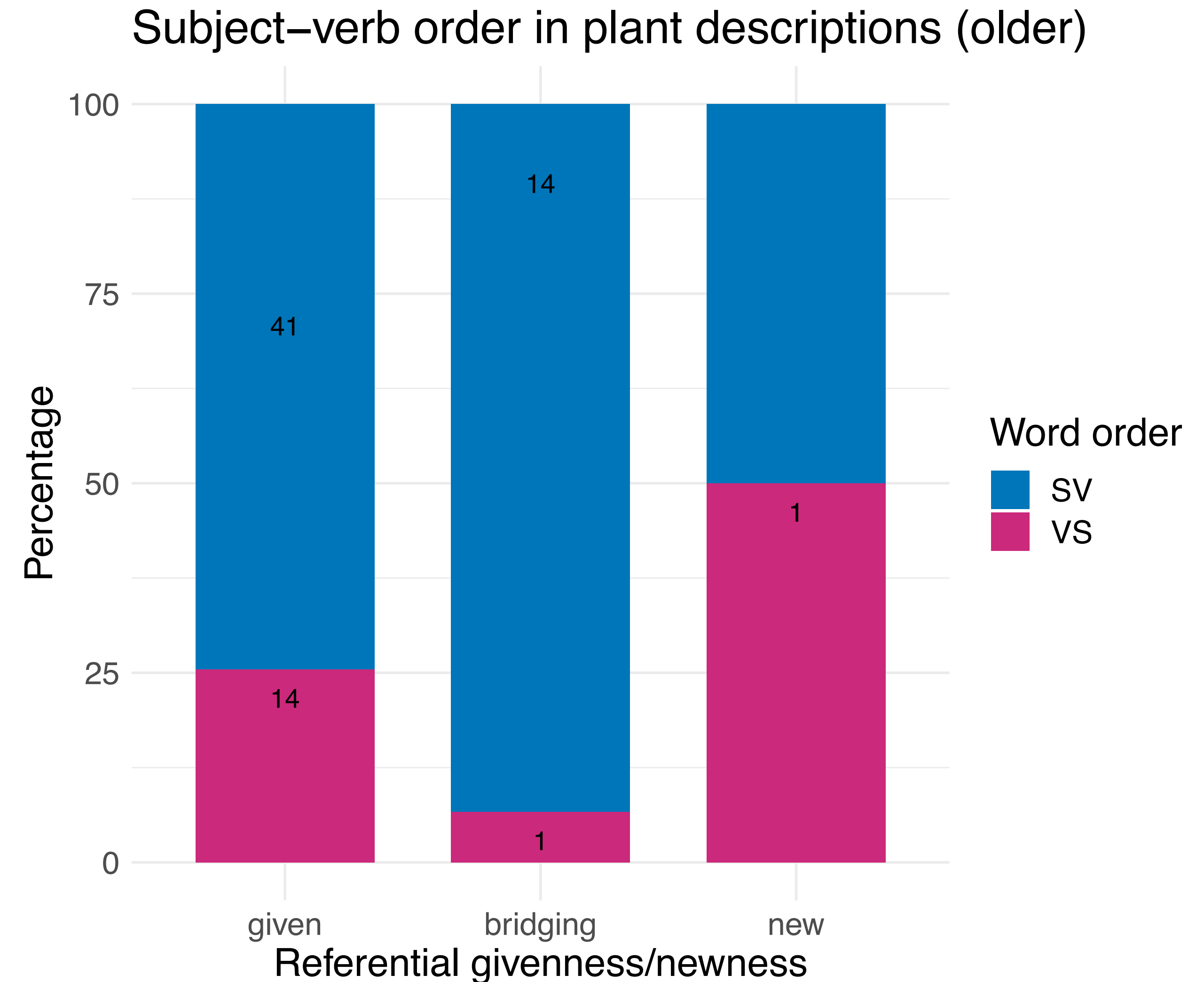
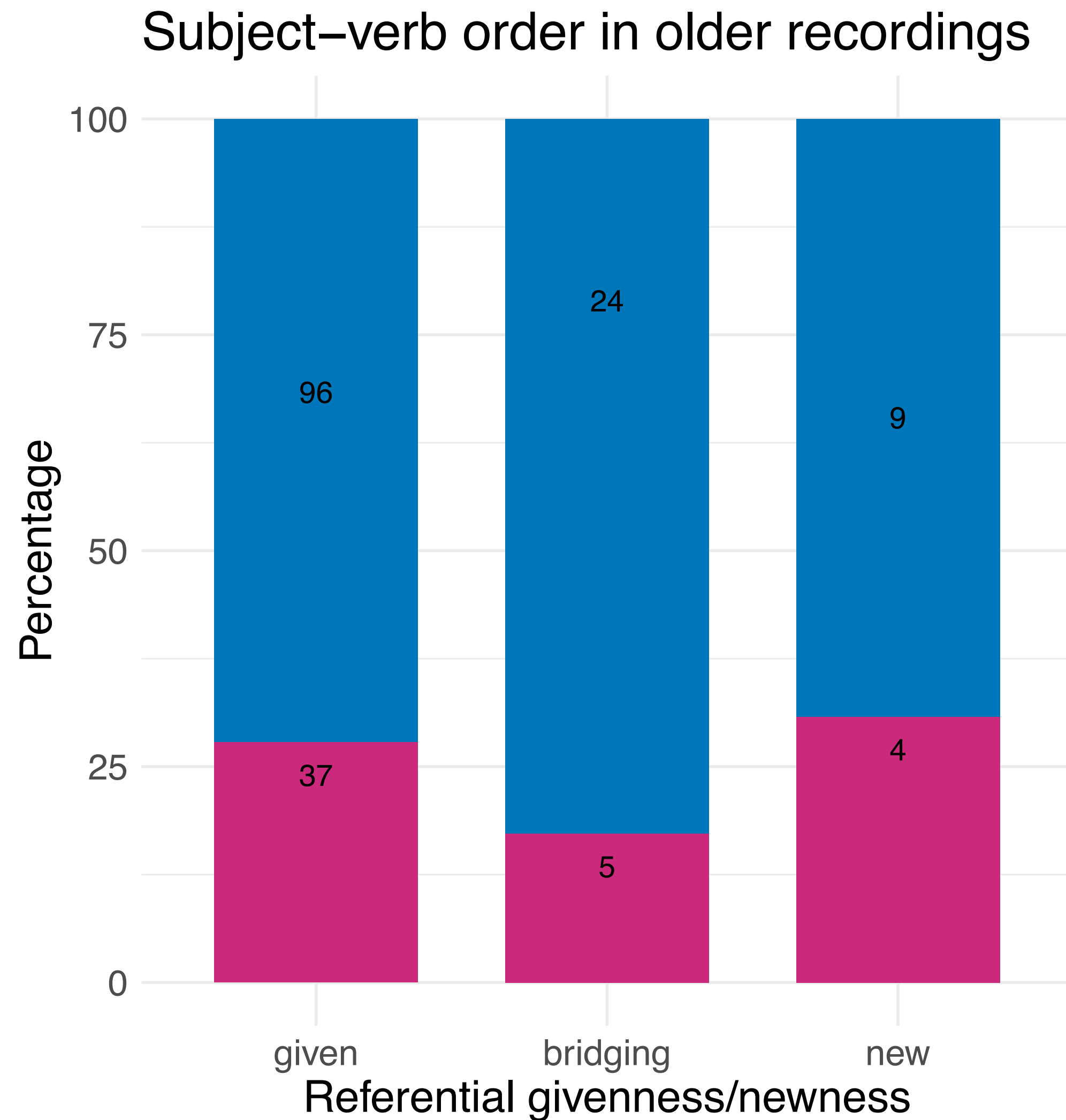
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= Lots of bridging, very few new referents

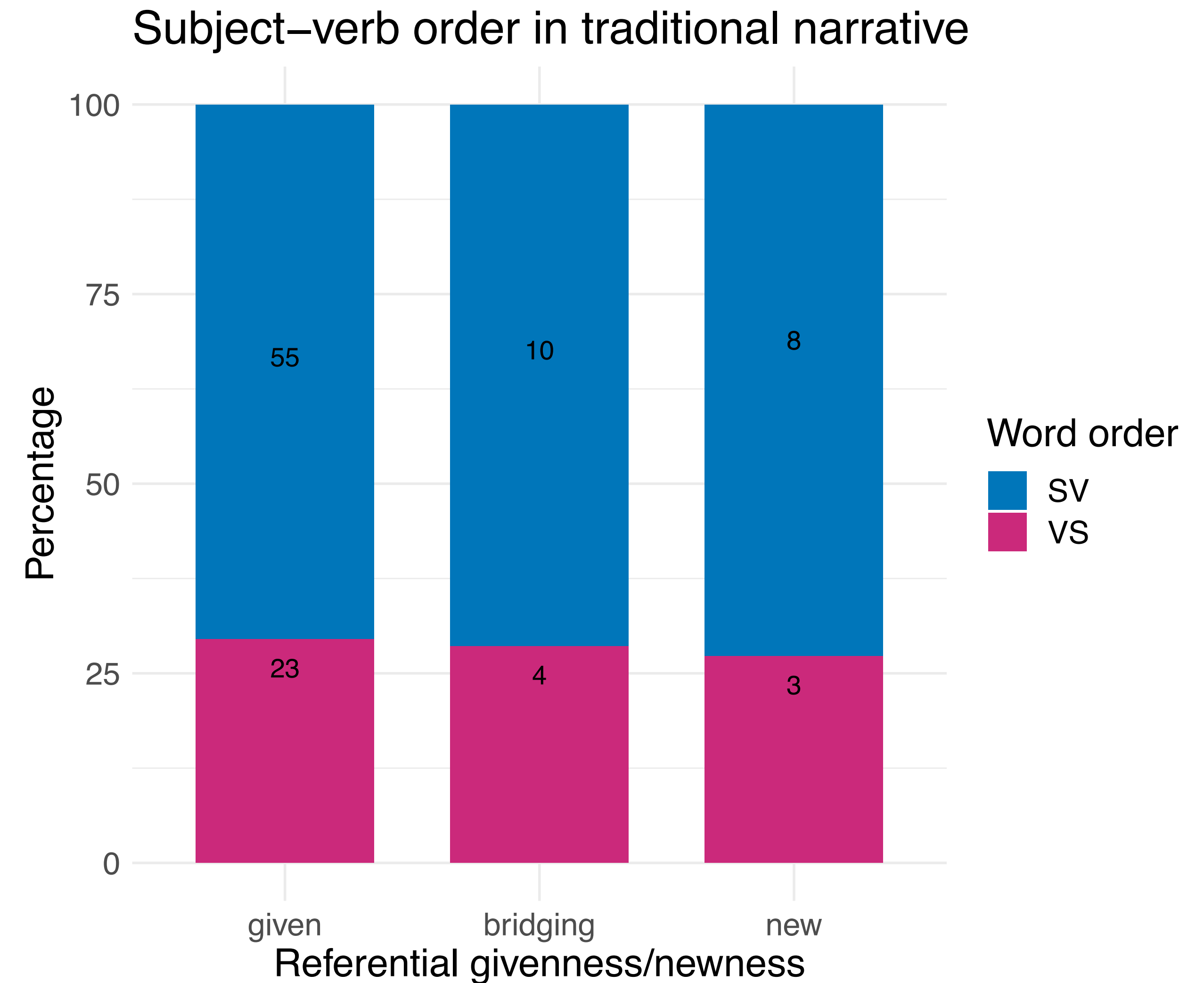
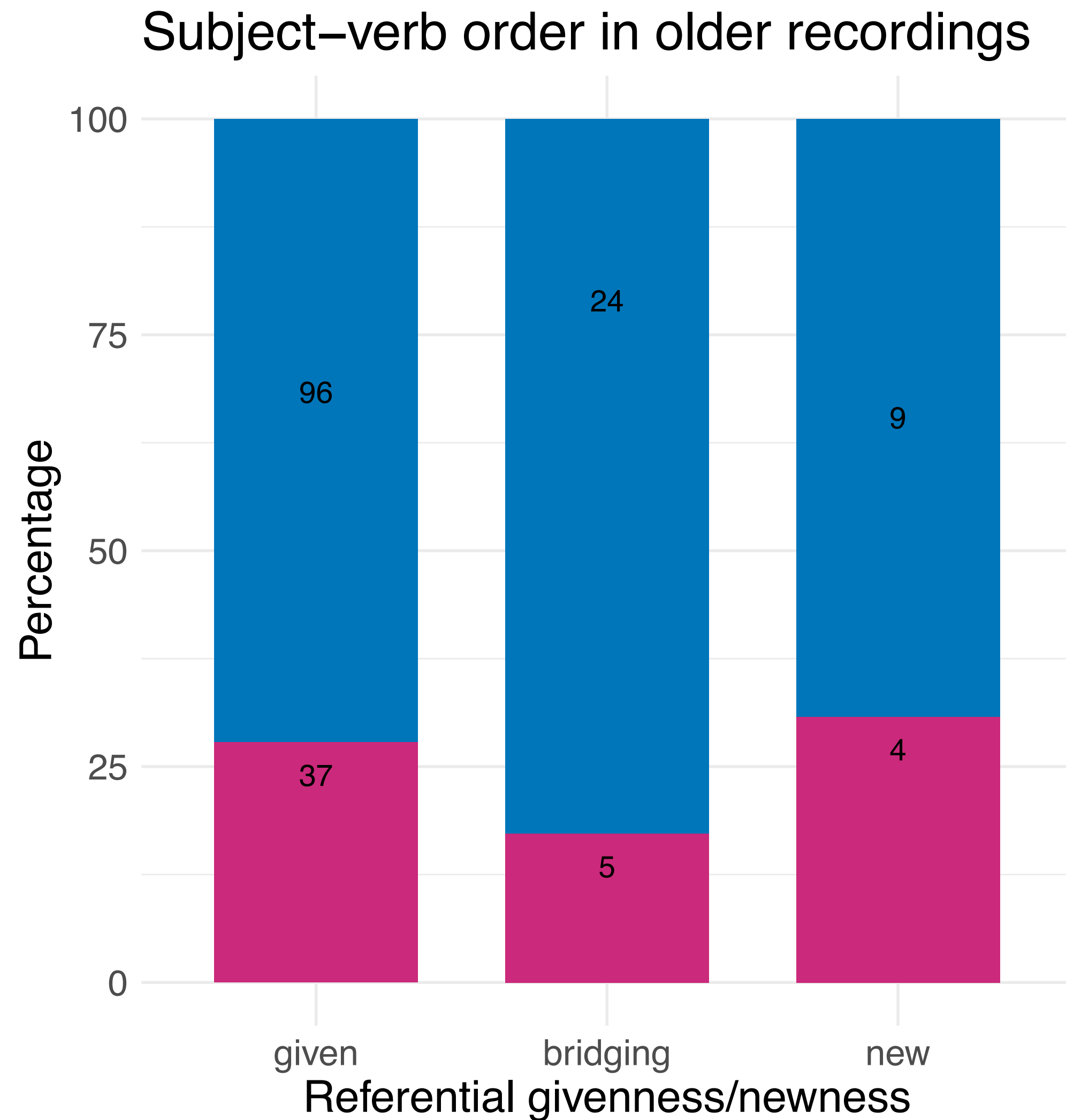
Bridging referents prefer pre-verbal position in **plant descriptions**:



Bridging referents prefer pre-verbal position in **plant descriptions**:



No influence in **traditional narratives**?



Other factors/word orders more relevant?

Genre-specific reasons?

Small dataset?

Post-verbal new subject (traditional story)

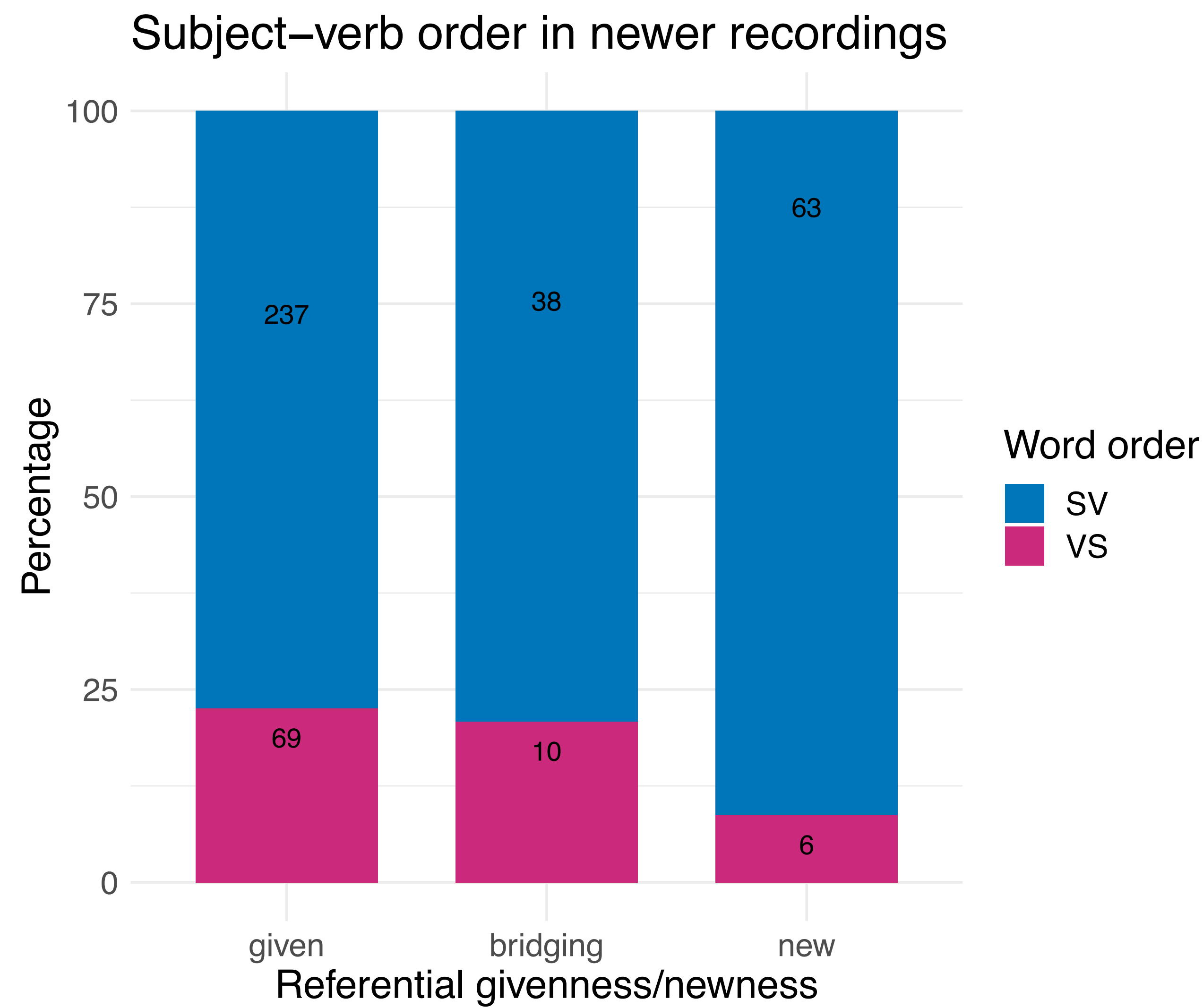
- (11) In the shade, (someone) used to come upon (an emu). It used to sit in the shade, for fear of the big sun. (The hunter) used to shoot this one. (The hunter) used to cook (the game).

<i>ngangkarli</i>	<i>=lpa</i>	<i>yirra-rnu</i>	<i>ngapa-ngku</i>
raincloud	=AUX.PST.IMPF	put-PST	water-ERG

‘The water made rainclouds.’ (219-359-363; Hale 1966-1967)

In newer recordings, new referents prefer pre-verbal position:

In newer recordings, new referents prefer pre-verbal position:



Pre-verbal new subject

(12) *kurdu* // *kamina* *wita-pardu* *ka* *manyu-karri-mi*
child // girl small-DIM AUX.PRS play-stand-NPST

‘A child, a young girl is playing [with a dog].’ (wa321-021-022; O’Shannessy 2004a)

Post-verbal new subject

- (13) *watiya-wana ka karri-mi // karnta manu kurdu wita*
tree-near AUX.PRS stand-NPST // woman and child small

‘Near a tree stand a woman and a small child.’ (wa322-004-005; O’Shannessy 2004b)

Post-verbal new subject

- (13) *watiya-wana ka karri-mi // karnta manu kurdu wita*
tree-near AUX.PRS stand-NPST // woman and child small
'Near a tree stand a woman and a small child.' (wa322-004-005; O'Shannessy 2004b)

Note the IU boundary and the weight!

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Thank you!



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