



# One indefinite scopes out of islands: an experimental study of long-distance scope in English and German

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## Background

- Indefinites, unlike other quantifiers, can scope out of islands, obtaining long-distance wide-scope readings (Fodor & Sag 1982 & much subsequent literature):  
*Jennifer read every book that a professor assigned.*  
**Narrow-scope reading (NSR, every > a):** Jennifer read every book that any professor assigned.  
**Wide-scope reading (WSR, a > every):** There exists a specific professor, such that Jennifer read every book that this professor assigned.
- Many different theoretical accounts of long-distance WSRs (e.g., Reinhart 1997, Kratzer 1998, Schwarzschild 2002); on most accounts, WSRs are assumed to be freely available to different indefinite types, regardless of determiner form.
- Endriss (2009): a link between long-distance scope, topicality, and stress pattern:
  - Topical indefinites have long-distance WSRs, non-topical ones do not
  - In German, topicality is marked by stress on the determiner: indefinites with stressed *EIN* ('one') can occur in topic position and have long-distance WSRs, more readily than indefinites with unstressed *ein* ('a/one')
  - What about English? Is the relevant factor determiner form (a vs. one), stress on the determiner, or both?

## Experiment 2 (English, pilot study)

Goals: to determine whether WSRs are unavailable for a indefinites, or only dispreferred to determine whether one indefinites allow the NSR when the WSR is infelicitous

- Test instrument: web-based Acceptability Judgment Task (AJT)
- Sentences presented in written form, in isolation, and rated on a scale from 1 (unacceptable) to 7 (acceptable)
- 80 items; focus on 4 categories, 8 tokens each (4 with a, 4 with one):
  - Jennifer read every book that a/one professor had written. *Both WSR and NSR possible.*
  - Jennifer read every book that a/one professor had written, but I don't know which professor it was. *WSR is forced*
  - Robert photographed every building that a/one guard was standing in front of. *Only NSR makes sense*
  - Robert photographed every building that a/one guard was standing in front of, but I don't know which guard it was. *Non-sensical*

AJT results: 13 native English speakers

category	WSR	NSR	mean rating with a	mean rating with one
1a	ok	ok	5.88	6.09
1b	ok	impossible	5.77	5.35
2a	non-sensical	ok	5.02	2.98
2b	non-sensical	impossible	2.62	2.92

For a indefinites: the WSR is available (compare 1b to 1a), even though it is dispreferred in Exp. 1 & 3: the NSR is the default interpretation, but not the only one.

For one indefinites: NSR is unavailable (compare 2a to 2b), supporting the proposal that one indefinites are topical and require WSRs (at least on non-contrastive readings).

## References

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## Experiment 1 (English and German)

- Goal: to examine whether long-distance WSRs are facilitated by determiner form and/or stress pattern, in English and in German
- Test instrument: web-based Truth-Value Judgment Task (TVJT)
- Each sentence was presented auditorily in the context of a picture
- 2 context types (WSR – Figure 1 vs. NSR – Figure 2) X 3 indefinite types
  - English version: a vs. one vs. ONE
  - German version: 'n (clitic) vs. ein vs. EIN
- 36 target items (6 conditions, 6 tokens per condition) + 36 fillers

The teacher put away every toy that a/one/ONE child played with.  
 Der Lehrer hat jedes Spielzeug weggeräumt, mit dem 'n/ein/EIN Kind gespielt hat.

TVJT results: 44 native English speakers & 30 native German speakers

scenario	truth-value on WSR	truth-value on NSR	English: %TRUE			German: %TRUE		
			a	one	ONE	'n	ein	EIN
Figure1	TRUE	FALSE	50%	75%	74%	23%	23%	45%
Figure2	at least one: TRUE exactly one: FALSE	TRUE	93%	70%	66%	89%	94%	67%

In English, WSR is facilitated by determiner form: ONE=one > a

In German, WSR is facilitated by stress: EIN > ein='n

Consistent with Endriss (2009), if one & EIN are markers of topicality; differences among determiners not expected on choice-function approaches to WSRs. Relative inaccessibility of WSRs for a indefinites consistent with prior findings by Ionin (2010). Open question: is one/EIN being interpreted as exactly one? (see Experiment 3)

Figure 1: WSR scenario

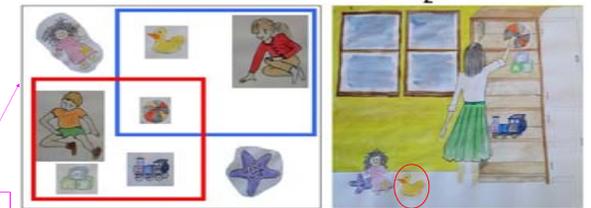
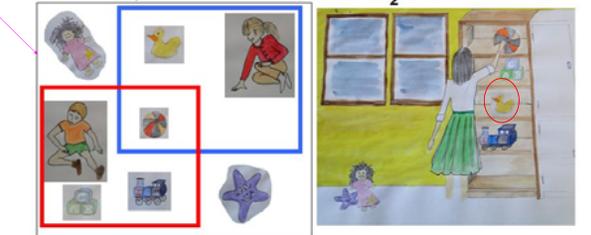


Figure 2: NSR scenario



## Experiment 3 (English)

- Goal: to tease apart scope readings from the interpretation of one as exactly one vs. at least one
- Test instrument: web-based Truth-Value Judgment Task (TVJT)
- Each sentence was presented auditorily in the context of a picture
- 4 context types (see Figures 3 through 6)
  - different test version for each indefinite type (a vs. one)
- Each test version: 16 target items (4 conditions, 4 tokens per condition), 34 fillers

TVJT results: 40 native English speakers tested on each indefinite type

scenario	truth-value on reading...				%TRUE responses	
	at least one, WSR	exactly one, WSR	at least one, NSR	exactly one, NSR	a	one
Figure 3	TRUE	TRUE	FALSE	FALSE	13%	76%
Figure 4	TRUE	FALSE	TRUE	TRUE	97%	84%
Figure 5	TRUE	FALSE	FALSE	FALSE	15%	63%
Figure 6	FALSE	FALSE	FALSE	TRUE	11%	26%

Figure 3: WSR scenario



Figure 4: NSR scenario



The teacher put away every toy that a/one child played with.

Figure 5: teasing apart exactly and at least WSRs



Figure 6: teasing apart exactly and at least NSRs



Availability of long-distance WSR for one indefinites is not linked to exactly one reading:

- High rates of 'true' responses (no sig. difference) when only at least one WSR is true (Figure 5), as well as when both at least one and exactly one WSRs are true (Figure 3)
- Significantly lower rate of 'true' responses when only exactly one NSR is true, and WSR is false (Figure 6)
- In contrast, the default interpretation for a indefinites is NSR with at least (Figure 4)