Intervening and non-intervening Interference

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Intrusion Effects

- Negative Polarity Items (NPIs) require the presence of a structurally inappropriate licensor to be well formed.

  Licensing No man who had a beard was ever happy.
  Intrusion A man who had no beard was ever happy.
  Violation A man who had a beard was ever happy.

- Structurally inappropriate licensors have been found to drive Intrusion Effects (grammaticality illusion) using a variety of experimental methods [1; 3; 4; 5; 2].
- The current web-based self-paced reading/judgment study examines previously untested possible intrusion configurations in Turkish.

Intrusion in Turkish: Previous Findings

ERP evidence:

Critical conditions in [6]

Licensing	Kimse Ali'nin çalıştığını söylemedi bana	
	NPI [ES	EV] MV.NEG
Intrusion	Kimse Ali'nin çalışmadığını söyledi bana	
	NPI [ES	EV.NEG] MV
Violation	Kimse Ali'nin çalıştığını söyledi bana	
	NPI [ES	EV] MV

Findings of Intrusion in [6]:

- ERP response profiles of Intrusion strongly resemble those of local licensing condition of embedded NPIs:
  - Both conditions attenuated N400 effects otherwise observed for embedded negation.
  - Both conditions elicited similar LAN profiles.
- Intrusion condition demonstrated acceptance rates in EoS judgment in between correct and violation conditions.

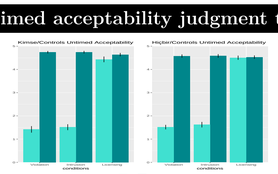
Present Study

- Research questions:
  - What is the sensitivity of intrusion effects for context manipulations?
  - Can intrusion effects be turned on/off by target manipulations?
  - What are the experimental task effects for intrusion effects?
- Context manipulation: Complementation (Exp.1&2) vs relativization (Exp.3)
- Target manipulation: Pronominal NPI (*kimse*) vs determiner NPI (*hiçbir*)
- Tast effects: Time-insensitive measures (Exp.1) vs time-sensitive measures (Exp.2&3)

Experiment 1: Untimed task

- Replication of [6] with the addition of (*hiçbir*) cases. (see the tables under Experiment 2)
- Web-based (Ibex Farm). 38 Turkish native speakers (21 female; mean age=29.5, SD = 5.2)

Figure 1: **Untimed acceptability judgment task results**



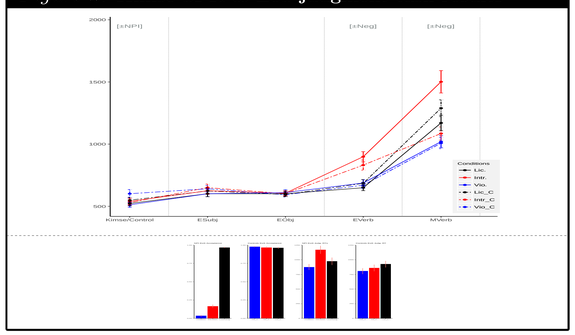
Experiment 2: Intervening interference

Web-based (Ibex Farm software) Self-paced reading with EoS acceptability judgment task . 2x2x3 design with 6 items per condition. 72 sets of items for critical/control conditions + 48 Filler items= 120 sentences, half ungrammatical. 67 Turkish native speakers (35 female; mean age=29.8, SD=5.4)

Pronominal NPI & Control conditions

		Regions				
	NPI/Cont.	ESubj	EObj	EVerb	MVerb	
Licensing	Kimse/Esra,	Eren'in	elmayı	yediğini	görmedi.	
	Anybody/Esra	Eren-G	apple-A	eat-FN-AG-A	see-NEG-P.3SG	
	'Anybody/Esra did not see that Eren ate apple.'					
Intrusion	Kimse/Esra,	Eren'in	elmayı	yemediğini	gördü.	
	Anybody/Esra	Eren-G	apple-A	eat-NEG-FN-AG-A	see-P.3SG	
	'*Anybody/Esra saw that Eren did not eat apple.'					
Violation	Kimse/Esra,	Eren'in	elmayı	yediğini	gördü.	
	Anybody/Esra	Eren-G	apple-A	eat-FN-AG-A	see-P.3SG	
	'*Anybody/Esra saw that Eren ate apple.'					

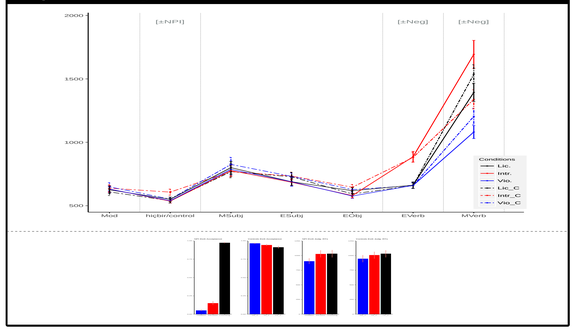
Figure 2: **Kimse SPR & EoS judgment task results**



Determiner NPI & Control conditions

		Regions					
	Mod	NPI/Cont.	MSubj	ESubj	EObj	EVerb	MVerb
Licensing	Okuldaki	hiçbir/new	öğrenci,	Eren'in	elmayı	yediğini	görmedi.
	School-L-P	any/new	student	Eren-G	apple-A	eat-FN-AG-A	see-NEG-P.3SG
	'Any/new student at the school did not see that Eren ate apple.'						
Intrusion	Okuldaki	hiçbir/new	öğrenci,	Eren'in	elmayı	yemediğini	gördü.
	School-L-P	any/new	student	Eren-G	apple-A	eat-NEG-FN-AG-A	see-P.3SG
	'*Any/new student at the school saw that Eren did not eat apple.'						
Violation	Okuldaki	hiçbir/new	öğrenci,	Eren'in	elmayı	yediğini	gördü.
	School-L-P	any/new	student	Eren-G	apple-A	eat-FN-AG-A	see-P.3SG
	'*Any/new student at the school saw that Eren did not eat apple.'						

Figure 3: **Hiçbir SPR & EoS judgment task results**



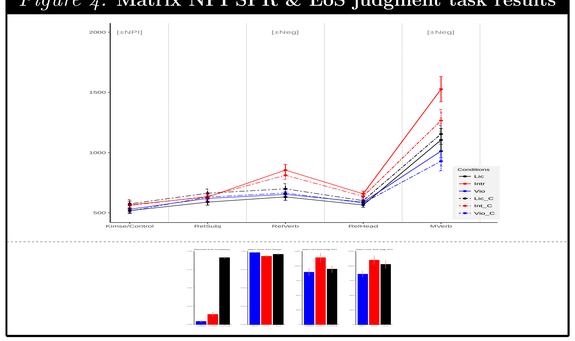
Experiment 3: Intervening & Non-intervening interference

Same as Exp.2 in terms of method & # of materials. 53 Turkish native speakers (29 female; mean age=25.1, SD=5.4)

Matrix NPI & Control conditions

		Regions				
	NPI/Cont.	RelSubj	RelVerb	RelHead	MVerb	
Licensing	Kimse/Esra,	Eren'in	yıkadığı	elmayı	yemedi.	
	Anybody/Esra	Eren-G	eat-FN-AG	apple-A	eat-NEG-P.3SG	
	'Anybody/Esra did not eat the apple Eren washed.'='Nobody ate ...'					
Intrusion	Kimse/Esra,	Eren'in	yıkamadığı	elmayı	yedi.	
	Anybody/Esra	Eren-G	eat-NEG-FN-AG	apple-A	eat-P.3SG	
	'*Anybody/Esra ate the apple Eren did not wash.'					
Violation	Kimse/Esra,	Eren'in	yıkadığı	elmayı	yedi.	
	Anybody/Esra	Eren-G	apple-A	eat-FN-AG-A	see-P.3SG	
	'*Anybody/Esra ate the apple Eren washed.'					

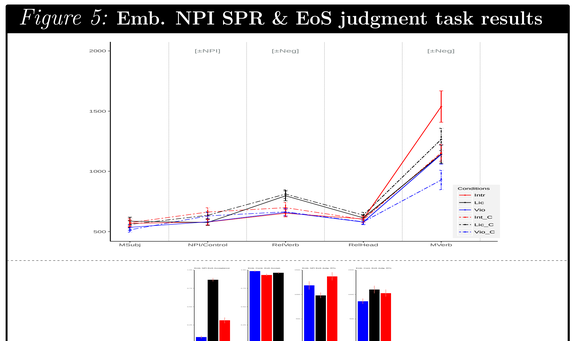
Figure 4: **Matrix NPI SPR & EoS judgment task results**



Embedded NPI & Control conditions

		Regions				
	MSubj	NPI/Cont.	RelVerb	RelHead	MVerb	
Intrusion	Esra,	kimsenin/Eren'in	yıkadığı	elmayı	yemedi.	
	Esra	anybody/Eren-G	eat-FN-AG	apple-A	eat-NEG-P.3SG	
	'Esra did not eat the apple *anybody/Eren washed.'					
Licensing	Esra,	kimsenin/Eren'in	yıkamadığı	elmayı	yedi.	
	Esra	kimsenin/Eren-G	eat-NEG-FN-AG	apple-A	eat-P.3SG	
	'Esra ate the apple anybody/Eren did not wash.'					
Violation	Esra,	anybody/Eren'in	yıkadığı	elmayı	yedi.	
	Esra	anybody/Eren-G	apple-A	eat-FN-AG-A	see-P.3SG	
	'Esra ate the apple *anybody/Eren washed.'					

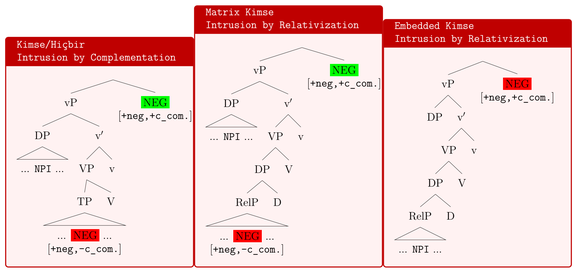
Figure 5: **Emb. NPI SPR & EoS judgment task results**



Summary

- To our knowledge, intrusion effects have been observed for the first time in contexts when the interference occurs in a non-intervening position (Fig. 5).
- Main effect of negation at the embedded verbs (Fig.2-5).
- Intrusion effect was observed in categorically two different NPIs for the first time (Fig. 2/3).
- EoS judgments show strong indication of intrusion in non-intervening interference cases.
- Experimental task is a significant factor in intrusion effects. Intrusion effects have only been observed in time-sensitive measures as also observed in [2].
- Online results of intrusion did not pattern with the licensing cases, contra the findings in [2]
- Intrusion effects were evident in EoS acceptance judgments (Fig. 5).

Discussion



- Licensing prediction is triggered only after NPI is processed in prospective licensing contexts.
- Processing of NPI licensing is closely connected to the structural variability. There is a locality requirement when an NPI occurs in a RC, no such requirement was observed in cases when NPIs occur in a complement clause (see [6])
- Intrusion effects have been observed in environments where the illicit licensor occurred in a structurally higher position (Embedded Kimse case).
- The presence of a licensor with [+neg] and [+c_command] features [3] does not guarantee a successful parsing of NPI licensing.

References & Acknowledgments

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