Rescuing exists! A experimental study on resumptives and island violations.

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Overview – While resumptive pronouns (RPs) are not grammatical in English and other languages, it has been claimed (Ross 1967, Kroch 1981) that they can be used as a last resort strategy to obviate island effects. However, recent experimental studies (Heestand et al. 2011, Han et al. 2012, Alexopoulou and Keller 2007) questioned this claim, showing that in a variety of islands RPs are not considered to be more acceptable than gaps. In the current study, we tested the acceptability of RPs in relative clause islands in Italian. Although Italian, like English, disallows resumption in grammatical relative clauses, we still found a rescuing effect with relative clause islands, suggesting that RPs can be effectively used as a rescuing strategy.

Design – Each item consisted of two different sentences. The first sentence provided contextual information and was the same across conditions, while the second sentence contained a relative clause and came in 16 different conditions, based on a 2x2x2x2 factorial design: a) Island (Island vs Non island); b) Resumption (Gap vs Resumptive Pronoun); c) Embedding (2 vs 3 embeddings); d) Case (Accusative vs Dative on the extracted element). 64 sets of stimuli were distributed into 16 lists with a Latin Square design (with 40 grammatical fillers). Participants were presented the items auditorily, and after each item, they were asked to assess how easy it was to comprehend the second sentence (the one with the critical manipulations) by providing a rating ranging from 1 (completely incomprehensible) to 7 (perfectly comprehensible).

Results (n=43) – The results are reported in Table 2. We found a main effect of Island (p <.0001). Planned paired t-tests showed that all island conditions (i-p) are worse than the corresponding non island conditions (a-h, all ps < .01). We also found a main effect of Resumption (p<.0001) and significant interaction effects between Resumption and Island (p<.001) and Resumption and Case (p<.001). Within non-island conditions, gaps turned out to be better than resumptive pronouns (ps<.0001). However, within island conditions, with accusative case, RPs showed a rescuing effect, resulting in higher acceptability than gaps, both with 2-level (p <.05) and with 3-level embedding (p <.001). With dative case, however, there is no difference between gaps and resumptives. Finally, we found a main effect of Embedding (p <.001) and an interaction effect between Embedding, Resumption and Island (p<.001). With island conditions, the depth of embedding did not change acceptability; with non-islands, longer embedding decreased acceptability, but only for gaps (ps<.001), not for RPs.

Discussion – Our results suggest that Italian RPs can rescue island violations, at least in the accusative case. At the same time, the fact that resumption is never better than gaps outside of islands confirms that resumption in Italian is a rescuing strategy rather than a grammatical device. However, RPs seem to have an effect outside of islands too, as they partially neutralize processing difficulties associated to multiple embeddings. We conclude that resumption in Italian is not allowed by the grammar in normal circumstances, but is available as a processing strategy to ameliorate disruptions due to grammatical violations or interpretive difficulties (like those generated by a high number of embeddings). Two questions remain, however. First, it is unclear why island rescuing effects are not found with the dative. We suggest that, in the dative case, relative clauses with a resumptive pronoun are obligatorily introduced by a generic complementizer (*che* = that), while relative clauses with a gap are introduced by a complex dative-marked complementizer (*a cui* = to whom). The use of *che* in this situation is a marked substandard usage, and could have led to the degraded acceptability on RPs, due to stylistic\prescriptive considerations. The second question is why a rescuing effect of RPs was experimentally undetectable in English. We suggest that, since Italian does allow RPs in in constructions such as Clitic Left Dislocation (Cinque 1990), although it in general doesn't allow RPs in grammatically well-formed relative clauses, RPs could be more accessible to Italian speakers than English speakers in rescuing situations, since RPs independently exist in Italian. An additional difference between the current study and previous ones is that we provided a background context sentence for each target sentence, which could have facilitated the overall comprehension of a complex target sentence.

Table 1. C (Condition) NI (non-island); I (Island), Em (Embedding)

C	Isl	Case	Em	Res	Context sentence (same across conditions): "Yesterday there were riots in the street, and some people were wounded by the police" **Critical Sentence:**
a	NI	DAT	2	Gap	Questo è il ragazzo a cui il poliziotto che guidava le operazioni ha dato un pugno "This is the boy to whom the cop who was leading the operation gave a fist"
b	NI	DAT	2	RP	Questo è il ragazzo che il poliziotto che guidava le operazioni gli ha dato un pugno "This is the boy that the cop who was leading the operation gave him a fist".
c	NI	DAT	3	Gap	Questo è il ragazzo a cui il giornale riporta che il poliziotto che guidava le operazioni ha dato un pugno. "This is the guy to whom the paper reports that the cop who was leading the operation gave a fist".
d	NI	DAT	3	RP	Questo è il ragazzo che il giornale riporta che il poliziotto che guidava le operazioni gli ha dato un pugno. "This is the guy that the paper reports that the cop who was leading the operation gave him a fist".
e	NI	ACC	2	Gap	Questo è il ragazzo che il poliziotto che guidava le operazioni ha picchiato. "This is the boy that the cop who was leading the operation beat up"
f	NI	ACC	2	RP	Questo è il ragazzo che il poliziotto che guidava le operazioni l'ha picchiato. "This is the boy that the cop who was leading the operation beat him up".
g	NI	ACC	3	Gap	Questo è il ragazzo che Il giornale riporta che il poliziotto che guidava le operazioni ha picchiato. "This is the guy that the paper reports that the cop who was leading the operation beat up".
h	NI	ACC	3	RP	Questo è il ragazzo che Il giornale riporta che che il poliziotto che guidava le operazioni l'ha picchiato. "This is the guy that The paper reports that the cop who was leading the operation beat him up".
i	I	DAT	2	Gap	Questo è il ragazzo a cui il poliziotto che ha dato un pugno deve essere sospeso. "This is the guy to whom the cop who gave a fist must be suspended".
j	I	DAT	2	RP	Questo è il ragazzo che il poliziotto che gli ha dato un pugno deve essere sospeso. "This is the guy that the cop who gave him a fist must be arrested".
k	I	DAT	3	Gap	Questo è il ragazzo a cui Il giornale riporta che il poliziotto che ha dato un pugno deve essere sospeso. "This is the guy to whom the paper reports that the cop who gave a fist must be suspended".
l	I	DAT	3	RP	Questo è il ragazzo che Il giornale riporta che il poliziotto che gli ha dato un pugno deve essere sospeso. "This is the guy to whom the paper reports that the cop who gave him a fist must be suspended".
m	I	ACC	2	Gap	Questo è il ragazzo che il poliziotto che ha picchiato deve essere sospeso. "This is the guy that the cop who beat up must be suspended".
n	I	ACC	2	RP	Questo è il ragazzo che il poliziotto che l'ha picchiato deve essere sospeso. "This is the guy that the cop who beat him up must be suspended".
o	I	ACC	3	Gap	Questo è il ragazzo che Il giornale riporta che il poliziotto che ha picchiato deve essere sospeso. "This is the guy that the paper reports that the cop who beat up must be suspended".
p	I	ACC	3	RP	Questo è il ragazzo che Il giornale riporta che il poliziotto che l'ha picchiato deve essere sospeso. "This is the guy that The paper reports that the cop who beat him up must be suspended" .

Table 2. Acceptability rating on 1-7 scale (N=43)

	ACCUSATIVE				DATIVE			
	2-embed		3-embed		2-embed		3-embed	
	Gap	RP	Gap	Rp	Gap	RP	Gap	RP
Non island	5.56	4.41	4.48	4.45	6.14	4.23	5.00	4.25
Island	3.24	3.65	3.40	3.92	3.85	3.67	3.65	3.87

References - [1] Alexopoulou and Keller. 2007. Locality, cyclicity and resumption: at the interface… Language. [2] Cinque, 1990. Types of A' dependencies. MIT Press. . [3] Han et al., 2012. Processing strategies and Resumptive Pronouns in English. WCCFL 30. [4] Heestand et al., 2011. Resumption still does not rescue islands.LI [5] Kroch, 1981. On the role of resumptive pronouns… CLS 17. LI. [6]. Ross, 1967. Constraints on variables in Syntax. Ph.D Thesis.