RESTRICTIVE RELATIVE CLAUSES IN MALTESE

Maris Camilleri and Louisa Sadler
University of Surrey University of Essex

Proceedings of the LFG11 Conference
Miriam Butt and Tracy Holloway King (Editors)
2011
CSLI Publications
http://csli-publications.stanford.edu/
Abstract

This paper provides a descriptive overview of restrictive relative clauses (henceforth RRCs) in Maltese, a construction which has received little attention to date and which is poorly described in existing grammars. We outline an LFG approach to the facts we describe building on existing LFG work on relatives. Further we explore some issues raised by Maltese for approaches to resumption.

1 Maltese Restrictive Relative Clauses

Maltese is a mixed language belonging to the South Arabic branch of Central Semitic, with a Maghrebi/Siculo-Arabic stratum, a Romance (Sicilian, Italian) superstratum and an English adstratum. Our data judgements are based mainly on the Naxxari dialect, a Noth-Western dialectal variety spoken by the native speaker author: we note where different judgements would hold in formal (high register) Maltese. We can distinguish between three broad types of RRC in Maltese (i) li initial RRCs, (ii) wh-fronted RRCs and (iii) ‘partitive’ RRCs introduced by milli (from COMP). The latter category raises some interesting questions of analysis, but for reasons of space we exclude them from consideration in this paper.

1.1 li Relatives

The invariant element li is found introducing a range of clause types (including relative clauses) and is most likely a cognate of the element li, illi, yalli found in the Arabic vernaculars (which has received a range of different analyses including COMP, DET and RELPRON). In Maltese this element is a complementiser and may (for example) introduce an embedded complement to a verb (1), a noun complement clause (2) or a sentential subject clause (3).

(1) N(1)-heb li n-af-u
   1SG-think that 1SG-know-3SGM.ACC
   I think that I know him.

(2) Il-fatt li wasal-na tard ma j-habbit-ni-x
   DEF-fact that arrived-1PL late NOT 3SGM-bother-1SG.ACC-NEG
   The fact that we arrived late does not bother me.

(3) Li l-gimgha d-diehla se t-kun vaganza
   That DEF-week DEF-entering.PROG.SGF FUT.part 3SGF-be holiday
   hija stqarrija sorprendenti
   COP.3SGF statement surprising
   That the coming week will be a holiday is a surprising statement.

†We thank Doug Arnold, Ash Asudeh, Mary Dalrymple, participants at LFG 2011 and the editors Miriam Butt and Tracy Holloway King for comments and feedback.
There are few restrictions on the use of *li in RRCs: it may be used in short and long-distance relativization on many GF functions and co-occurs with both gaps and resumptive pronouns, with both definite and indefinite antecedents. In Maltese, gap and RP are not in complementary distribution and are freely interchangeable in many positions. However it shows the familiar **Highest Subject Restriction** (Borer, 1984; McCloskey, 1990) which excludes a resumptive pronoun from this position (compare (4) and (5)), and also excludes an RP from the highest OBJ position in relatives with definite or quantified heads (compare (6) to (7)).

(4) *It-tifel li (*hu) ra-ni lbierah*
DEF-boy COMP (*he) saw.3SG-1SG.ACC yesterday
the boy who saw me yesterday

(5) *It-tifel li qal-u-l-i li (hu) kien*
DEF-boy COMP said-3PL-DAT-1SG COMP he was.3SGM
ra-hom
saw.3SGM.3PL.ACC
the boy who they told me that saw them

(6) *Ilqtat-t mat-tifel li kellem*
met-1SG with.DEF-boy COMP spoke.3SGM
I met with the boy he spoke to.

(7) *Kull tifel li hsib-t li kellim-t-(u) lbierah*
All boy COMP thought-1SG COMP spoke-1SG-(3SGM.ACC) yesterday
every boy that I thought I spoke to yesterday

(8) *Il-grammatika/somma li ghdit-l-i ghallim-t-hom*
DEF-grammar/sum COMP told-1SG-DAT-2SG taught-1SG-3PL.ACC
the grammar/a sum that I told you I taught them

---

1Note that OBJ is a collection of (thematiclv restricted) functions: Maltese is not alone in providing a morphological means of expression for just the OBJ among these functions. In what follows we sometimes mention OBJ explicitly (and redundantly) alongside OBJ for clarity.
(9) *Ir-raqel li bgħatt-(lu) l-ittra weği biển.

The man that I sent (him) the letter responded.

A gap is not licensed as OBL OBJ or as POSS.

(10) *Il-forn, li ħmej-na ħobż fi-*<(h)

the oven in which we baked the bread

(11) *It-tarbija li n-af 'l omm-*<(ha)

the baby whose mother I know

The following summarises the distribution pattern for *li RRCs in both immediate (IDD) and long-distance (LDD) dependencies, a distribution which raises some interesting questions for further work. We suggest that the underlying pattern is that resumptives and gaps are in free distribution, subject to some additional restrictions.

(12) Summary for Li Relatives

<table>
<thead>
<tr>
<th>GF</th>
<th>IDD</th>
<th>LDD</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJ</td>
<td>Gap</td>
<td>Gap/ RP</td>
<td>Highest Subject Restriction</td>
</tr>
<tr>
<td>OBJ</td>
<td>Gap/ RP</td>
<td>Gap/ RP</td>
<td>Indefinite RCs</td>
</tr>
<tr>
<td>OBJ</td>
<td>Gap</td>
<td>Gap/ RP</td>
<td>Definite/Quantified RCs</td>
</tr>
<tr>
<td>OBJg</td>
<td>Gap</td>
<td>Gap</td>
<td></td>
</tr>
<tr>
<td>OBJ</td>
<td>Gap/ RP</td>
<td>RP</td>
<td></td>
</tr>
<tr>
<td>OBL OBJ</td>
<td>RP</td>
<td>RP</td>
<td></td>
</tr>
<tr>
<td>POSS</td>
<td>RP</td>
<td>RP</td>
<td></td>
</tr>
</tbody>
</table>

1.2 wh Relatives

Maltese also has wh-relatives, introduced by a range of *wh- pronouns including: *min 'who' (SUBJ), *l min ‘whom’ (OBJ, OBJ_g), *fejn 'where' (locative ADJ, OBL), and *xiex ‘which’ (OBL OBJ). The inanimate pronoun *xiex occurs only as the complement of a preposition: its counterpart in direct function positions is *x and this element is grammatical in wh-questions but not in RRCs. The result of this is that relativisation with the wh-strategy on direct (nominal) grammatical functions is only possible for animate elements. With direct functions the antecedent must also be definite. Finally, wh-relatives always involve a gap rather than a RP. Examples (13) to (15) illustrate relativisation on direct functions (with definite antecedents).

\[\text{\textsuperscript{2}}\text{A further wh-pronoun, *ma, 'what' exists in the dialect but is rather archaic and used only in very restricted and highly conventionalised contexts. We do not take it to be productive.}\]

\[\text{\textsuperscript{3}}\text{But see Section 4 on relativization in islands.}\]
(13) **Ir-rağel min ghid-t-l-ek fetaḥ-l-i il-bieb**
DEF-man who told-1SG-DAT-2SG opened.3SGM-DAT-1SG DEF-door
the man who I told you opened the door for me **SUBJ**

(14) **It-tifel 'l min n(a)-hseb j-ghallem-*u**
DEF-boy ACC.who 1SG-think 3-teaches.3SGM-3SG.ACC
the boy who I think he teaches **OBJ**

(15) **It-tifel 'l min ghadni kemm xejjir-t-*l-u**
DEF-boy ACC.who yet.1SG just waved-1SG-DAT-3SGM
the boy who I just waved to **OBJ**

(16) **(Ir)-rağel ma'/fejn/ghand min ḫsib-t li raj-t-ek**
(DEF)-man with/ near/at who thought-1SG COMP saw.1SG-2SG.ACC
the/a man with/ near/ next to whom I thought I saw you **OBL**

(17) **(Ił)-barmil b'xiex soltu n-tella l-ilma mill-bir**
(DEF)-bucket with. what usually 1SG-get.up DEF-water from. DEF-well
the/a bucket which I usually get the water from the well with

(18) **(Ił)-triq minn fejn (mnejn) n-ghaddi**
(DEF-)street from where (from.where) 1SG-pass
the/a street from where I pass **ADJ**

(19) summarises for RRCs introduced by a wh-relative pronoun.

(19) Summary for Wh Relatives

<table>
<thead>
<tr>
<th>ANT</th>
<th>GF</th>
<th>ANT</th>
<th>GF</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF</td>
<td>SUBJ</td>
<td>Gap</td>
<td>min: Human dialect only</td>
</tr>
<tr>
<td>DEF</td>
<td>OBJ</td>
<td>Gap</td>
<td>'l min: Human dialect only</td>
</tr>
<tr>
<td>DEF</td>
<td>OBJ</td>
<td>Gap</td>
<td>'l min: Human dialect only</td>
</tr>
<tr>
<td>DEF</td>
<td>DAT&lt;sub&gt;goal&lt;/sub&gt;</td>
<td>Gap</td>
<td>'l min: Human dialect only</td>
</tr>
<tr>
<td>OBL</td>
<td>Gap</td>
<td>dialect + standard</td>
<td></td>
</tr>
<tr>
<td>ADJ</td>
<td>Gap</td>
<td>dialect + standard</td>
<td></td>
</tr>
</tbody>
</table>

In summary, we find gaps and RP in overlapping distribution in *li* RRCs: we assume that RP is available everywhere subject to specific constraints (e.g. HSR). Wh-relatives involve gaps. The antecedent of a wh-RRC on direct (term) functions is required to be both definite and human. In the following section, we outline an analysis of this data building directly on existing analyses of RRCs in LFG.

---

4 Relativisation on POSS is not possible with the wh-strategy:

(i) *It-tifel 'l min n-af lil omm-u*
DEF-boy ACC.who 1SG-know ACC mother-3SGM.ACC
The boy whom I know his mother
2 Basic Analysis

We start with an account of gapped RRCs, drawing on the analysis of English RRCs in Dalrymple (2001). The facts outlined above concerning the distribution of the (invariant) element *li* suggest that it is a complementiser. A RRC introduced by *li* has a null (ε) TOPIC: we assume the rule in (20) for such relative clauses. The annotation (ADJ ∈ ↑) places an existential constraint ensuring that the null TOPIC occurs only when the CP is a relative clause. Subject to general syntactic constraints, a gap may correspond to any direct (that is, non-prepositional) GF of a clause. The path DIRGF is defined in (24). The TOPIC is identified with some within-clause function defined by means of the path RGAPPATH, defined in (21).

\[ (20) \text{CP} \rightarrow \epsilon \quad C' \]
\[ (\uparrow \text{TOPIC PRED}) = '\text{PRO}' \quad \uparrow \text{= } \downarrow \]
\[ (\text{ADJ} \in \uparrow) \]
\[ (\uparrow \text{COMPPFORM}) = \epsilon \text{ LI} \]
\[ (\uparrow \text{TOPIC}) = (\uparrow \text{RGAPPATH}) \]

\[ (21) \text{RGAPPATH} \equiv \{ \text{COMP} \} * \text{DIRGF} \]

Turning now to wh-relatives, in these structures a *wh*-phrases (NP or PP) appears in the specifier of CP position. If the relative dependency ends in a direct (NP) function, that is SUBJ, OBJ, OBJgoal or OBJθ, then the antecedent is subject to the constraint that it must be [+Human] and [+Def]. The TOPIC is identified with some within-clause function defined by means of the pathname RWHGAPPATH, defined in (23). Finally, in the case of wh-relatives, the RELPRO may correspond to either the TOPIC or an OBJ function embedded within the TOPIC - the latter in the case of pied-piping in examples such as (16) and (17).

\[ (22) \text{CP} \rightarrow \text{XP} \quad C' \]
\[ (\uparrow \text{TOPIC}) = \downarrow \quad \uparrow \text{= } \downarrow \]
\[ (\uparrow \text{TOPIC}) = (\uparrow \text{RWHGAPPATH}) \]
\[ (\uparrow \text{RELPRO}) = (\uparrow \text{TOPIC (OBL* OBJ)}) \]

\[ (23) \text{RWHGAPPATH} \equiv \{ \text{COMP} \} * \text{DIRGF} \quad | \text{INDIRGF} \quad \text{Constraints} \quad \text{@DEFHUM} \]

\[ (24) \text{DIRGF} \equiv \text{SUBJ}|\text{OBJ}|\text{OBJgoal}|\text{OBJθ} \]

\[ (25) \text{INDIRGF} \equiv \text{OBL}|\text{ADJ} \in \]

\[ (26) \text{DEFHUM} \equiv ((\text{ADJ} \in \text{COMP* } \uparrow) \text{ DEF}) = + \]
\[ ((\text{ADJ} \in \text{COMP* } \uparrow) \text{ ANIM}) = \text{HUM} \]

5The element *li* is obligatory in null TOPIC relatives but obligatorily absent in wh-relatives.
6We assume for the moment that all Maltese verbal complements are COMPs.
An f-structure along the lines of (28) will result for li or wh relatives like (27) (we omit some minor morphosyntactic features here).

(27) Rajt lit-tifel li '/l min j-af Pawlu
Saw.1SG ACC.DEF-boy COMP/who 3SGM-know Paul
I saw the boy that Paul knows.

(28)

With this in place, we now turn to the analysis of the nature, occurrence and distribution of the resumptive pronoun in RRCs, and in particular to the questions (i) what is the correct analysis of the resumptive strategy and (ii) how is the above supplemented to account for RPs? We begin with a brief overview of key work in LFG on resumption.

3 Resumption in LFG

A key distinction is that made between true resumptives, which are grammatically licensed bound pronouns, and false resumptives, or intrusive pronouns, which are not grammatically licensed (but might arise in performance, sometimes due to processing constraints). A number of properties distinguish true resumptives from intrusive pronouns. Asudeh (2004) lists the following (drawing notably on Chao and Sells (1983) and using English for illustrative purposes although English in fact shows intrusive rather than resumptive behaviour): (i) true resumptives, but not intrusive pronouns, permit binding by a quantifier resisting an e-type interpretation (every, each, no - I’d like to review every book that Mary couldn’t remember if she’d read RP/*IP before); (ii) true resumptives, but not intrusives, support a list answer (Which of the linguists do you think if Mary hires RP/*IP everyone will be happy? --- Chris, Daniel or Bill); (iii) true resumptives, but not intrusives, support functional answers to questions.

As pronouns, RPs are subject to some interpretive restrictions. As noted by Doron (1982) they do not permit de dicto or non-specific readings, so that in Dani
will find the woman that he is looking for (RP), the RP would receive a de dicto reading; and they do not permit pair-list answers to wh-questions such as Which woman did every man invite (RP)? (Engdahl, 1980; Sharvit, 1999)

Asudeh (2004) develops an approach to true resumptives in LFG building on the twin insights that (i) they are syntactically pronouns and (ii) they are surplus resources which are ultimately removed from semantic composition. As syntactic pronouns, RPs are anaphorically bound elements. In his treatment of Irish, the complementisers themselves introduce the equations identifying the discourse functions involved in long distance dependencies: (29a) is the gap-binding complementiser a (which causes lenition of the following element) and (29b) is the (nasal mutating) a found in RP marked dependencies. (30) shows the manager resource which consumes a pronominal meaning and outputs an identity function on the antecedent.

(29) a. \( aL : (\uparrow \text{UDF}) = (\uparrow \text{COMP UDF}) \mid (\uparrow \text{UDF} = (\uparrow \text{GF}) \) (Irish)
   b. \( aN : (\uparrow \text{UDF})_\sigma = (\uparrow \text{GF}_\sigma \text{ANT}) \) (Irish)

(30) \( \lambda \text{P} \lambda y.y : [(\uparrow \text{UDF}_\sigma \rightarrow (\uparrow \text{UDF})_\sigma \otimes (\uparrow \text{GF}_\sigma^+) )] \rightarrow (\uparrow \text{UDF})_\sigma \rightarrow (\uparrow \text{UDF})_\sigma \)

While Asudeh (2004) argues that (true) RPs are simply pronouns at f-structure, subject to anaphoric binding, an alternative view is taken in Falk (2002), namely that pronouns may lack a PRED value just in case they are functionally identified with a discourse function: functional identification is introduced lexically (by the pronoun itself) and mediated by reference to a \( \rho \) projection containing the referential elements in the discourse as shown in (31).

(31) \( f \in \rho^1(\uparrow \rho) \land (\text{DF } f) \Rightarrow \uparrow = f \)

In subsequent work, and building on an insight of McCloskey (2006), Asudeh (2011, to appear) distinguishes two types of true resumptives, which he refers to as syntactically active resumptives (SARs) and syntactically inactive resumptive (SIRs). Both types of resumptive receive the same treatment in the syntax-semantics interface, that is, they are removed by a manager resource. SARs do not display gap-like properties in the syntax and are anaphorically bound pronouns in the syntax: the RPs of Hebrew and Irish are of this type. On the other hand, (SIRs) are syntactically gap-like (i.e. they are functionally controlled): the RP is treated as the bottom of a filler-gap dependency by restricting out the pronominal PRED value, as shown in footnote 7. Effectively, these RPs are audible gaps. Asudeh (2011, to appear) takes the RPs of Swedish and Vata to be of this type.7

7The functional uncertainty statement for Swedish (with RPs only in SUBJ function), is as in (ii).

(ii) \( (\uparrow \text{UDF}) \ \text{PRED} = \{
\begin{array}{c}
(\uparrow \text{CF}^+) \\
\text{constraints}
\end{array}
\mid \begin{array}{c}
\{ \text{GF-SUBJ} \}
\mid \text{SUBJ-PRED}
\text{constraints}
\end{array}
\mid (\uparrow \text{UDF})_\sigma = (\rightarrow \sigma \text{ ANTEC})
\)
SAR and SIR pronouns are distinguished by their behaviour in relation to a number of syntactic diagnostics, summarised in (32). The most robust diagnostics are weak crossover (WCO) and behaviour in relation to syntactic islands; the remaining diagnostics are less robust because it is less clear that the relevant property is entirely syntactic.

<table>
<thead>
<tr>
<th></th>
<th>SIR</th>
<th>SAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island Sensitive</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Subject to WCO</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Reconstruction Licensed</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ATB Extraction</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Licenses PG</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Asudeh (to appear)

4 Maltese Resumptives

In this section we consider the nature of the resumptive elements in Maltese relative clauses. We show first that these elements are indeed true resumptives and not intrusive pronouns, and then consider their status with respect to the SIR/SAR distinction. (33) shows that a resumptive may be bound by a quantifier resisting an e-type interpretation (Maltese kull ‘every’ is one such element). (34) shows that the pronoun in question supports a list answer (and so is a resumptive), and (35) demonstrates that it supports a functional answer to a wh question. Together, these examples then support the conclusion that Maltese has true resumptives rather than intrusive pronouns in these contexts.

(33) kull tifel li Isib-t li kellim-t-(u) li bierah
every boy COMP thought-1SG COMP spoke-1SG-(3SGM.ACC) yesterday
every boy that I thought I spoke to yesterday

(34) Liem mil-lingwist-i t-(a)hseb li jekk Marija
Which from.DEF-linguist-PL 3SGF-think COMP if Mary
jirnexie-l-ha t-haddm-u kulladd i-kun kuntent?
succeed-DAT-3SGF 3SGF-employ-3SGM.ACC everyone 3-be.SGM happy
Which of the linguists do you think that if Mary succeeds in employing (him), everyone will be happy?
‘l Mario, ‘l John, jew ‘l Salvu (= Mario, John or Salvu)

(35) Liem hija l-mara li kull ragel j-af lil
which COP.3SGF DEF-woman COMP every man 3-knows-SGM ACC
omm-*(ha)
mother-3SGF.ACC
Which is the woman whom every man knows her mother?
- ‘l Marija (= Marija)
- ‘l martu (= his wife)
- *Pawlu, ‘l Marija u Ganni ‘l Rita (= Mario, Marija and Ganni, Rita)
Likewise, we can show that resumptives in Maltese do indeed show the interpretive properties typical of pronouns. The interpretation in (36) is that there is a specific woman that Daniel will find. As indicated above, (35) shows that a pronoun (unlike a gap) fails to permit a pair-list answer.

(36) Daniel ghad i-sib il-mara li Marija t-(a)lheb
Daniel will 3-find-SGM-find DEF-woman COMP Marija 3SGF-thinks
li il-u j-fittix-(ha)
COMP long time-3SGM 3SGM-search-3SGF.ACC
Daniel will find the woman that Maria thinks he has been looking for for a long time.

We conclude that Maltese has true resumptives in RRCs, and turn to the question of whether they are syntactically active or syntactically inactive pronouns. Recall that the most robust and clear-cut diagnostics are behaviour in relation to weak crossover, and in relation to syntactic islands. Consider (37) as a case of relativisation on the object: the dependency between the antecedent (ir-ragel) (or the TOPIC) and the RP ‘crosses over’ the possessive in martu (‘his wife’), but the sentence is perfectly well-formed. By contrast, and although both gap and RP are generally available for relativisation on the OBJ, employing a version of (37) with a gap rather than a RP is ungrammatical. One might object that in (37) it is possible that the position relativised on is the SUBJ POSS (compare (11) for example). Note however that the POSS function is not accessible to relativisation by the wh-strategy, as shown by the example in footnote 4, and thus it is clear that (38) involves relativisation on the OBJ, and therefore constitutes a case of crossover. Crucially, (38) involves a RP and would be ungrammatical with a gap, despite the fact that, as demonstrated in section 1.2, RPs are normally excluded in wh-relatives.

(37) Ir-ragel li n-af li hallie-t-u mart-*8(u)
DEF-man COMP 1SG-know COMP left-3SGF-3SGM.ACC wife-3SGM.ACC
baqa’ ma harig-x mid-dar
left.3SGM NEG go out.3SGM-NEG from.DEF-house

The man who I know that his wife left him, has not left the house since.

(38) Ir-ragel ’l min n-af li t-elq-it-u
DEF-man ACC.who 1SG-know COMP left-3SGF-3SGM.ACC
l-mara/mart-*8(u)
DEF-woman/woman-3SGM.ACC

the man who I know that his wife left him

The WCO data above indicate that Maltese RPs and gaps do not show the same syntactic behaviour, and support the conclusion that Maltese RPs in RRCs are SARS (and hence anaphorically bound pronouns in the syntax on the analysis proposed
by Asudeh (to appear). This conclusion is also supported by the island sensitivity diagnostic. For example, (39) illustrates the Complex Noun Phrase Constraint, with a (second) relative dependency into a CNP created by relativisation: although the relativised position is one which is normally accessible to the gap strategy, the resumptive is obligatory here as a gap would cause a syntactic constraint violation. The same occurs with other constraints such as the Adjunct Island Constraint and the Wh-Island Constraint, illustrated here with wh-relatives, which obligatorily involve RPs where a gap would violate a syntactic constraint (see (40) and (41)). These two diagnostics therefore provide strong evidence that Maltese RPs are syntactically active, that is, that they are pronouns (rather than gaps) in the syntax.

(39) Raj-t ir-raġel li n-af mara li 
  saw-1SG DEF-man COMP 1SG-know woman COMP 
  t-af-u   u ghid-t-l-u
  3SGF-know-3SGM.ACC and told-1SG-DAT-3SGM 
  j-selli-l-i   ghal-li-3
  3SGM-send regards-DAT-1SG for-3SGF.ACC

I saw the man who I know a woman that knows him, and told him to send her my regards.

(40) Il-mara ’l min int rid-t t-kun t-af min (hi)_i
  DEF-woman ACC.who you want-2SG 2SG-be 2SG-know who she 
  t(a)-lheb li ra-ha_i
  3SGF-think COMP saw.3SGM-3SGF.ACC

the woman who you wanted to know who she thinks that saw her

(41) Il-mara ’l min lanqas kon-t gharaf-t ghajr x’hin
  DEF-woman ACC.who NEG was-1SG recognised-1SG except what.time 
  qbiż-t-ha vera nbidl-(e)t
  overtook-1SG-3SGF.ACC really changed-3SGF

The woman who I hadn’t recognised except when I overtook her, has really changed.

We turn now to the issue of parasitic gaps and show that Maltese gaps licence parasitic gaps while Maltese resumptives do not. As far as we are aware, there has been no previous discussion of this phenomenon in Maltese, so we first establish that gaps in Maltese may license parasitic gaps. A wh-relative clause with an obligatory gap (’l min kull raġel selm_ _) licenses the use of either a gap or an RP within the following adjunct phrase (bla m’gharaf-(ha)), as in (42).

(42) Il-mara ’l min kull raġel selm_ bla m’
  DEF-woman ACC.who every man greeted-3SGM without COMP/NEG 
  gharaf-(ha)
  recognised.3SGM-(3SGF.ACC)

the woman whom every man greeted without recognising
The set of licit continuations are as we would expect for a gap construction (43) shows identificational, functional and pair-list continuations for (42).

(43) kien j-isim-ha Marija (= was named Marija) 
kien-et omm-u (= was his mother) 
jiğifieri Peter, Marija, Tony, Rita, .... (= that is Peter, Marija, Tony, Rita, ...)

On the other hand, RPs do not license parasitic gaps. Consider now (44). Since RPs are not (normally) licensed in wh-relatives, a potentially controlling RP will only be possible in circumstances where a gap is excluded, for example, in an island. The RP -ha cannot control a parasitic gap, only a pronominal.

(44) Kellim-t 'l mara 'l min n-(a)-lseb li l-fatt li kull 
spoke-1SG ACC.woman ACC.who 1SG-think COMP DEF-fact COMP every 
ragel laqagh-ha f'dar-u minghajr 
man welcomed.3SGM-3SGF.ACC in.house-3SGM.ACC without 
m'gharaf-ha dejjaq-ha 
N-COMP.recognised.3SGM-3SGF.ACC displeased.3SGM-3SGF.ACC

I spoke to the woman who I think that the fact that every man welcomed her in his house without recognising her, displeased her.

Turning now to li relatives, we see that the data here also supports the conclusion that RPs are syntactically active (and hence, do not share the ability to licence parasitic gaps that gaps exhibit). Similar to wh-relatives, in li relatives only gaps but not RPs may license parasitic gaps, as shown in examples (45) to (48).

(45) Dawn huma l-kotba li Toni s-sellef 
these COP.3PL DEF-books COMP Tony PASS-borrowed.3SGM 
bla/minghajr ma tallas 
without N-COMP paid.3SGM

These are the books that Tony borrowed without paying (for). GAP - PGAP

(46) Din hija l-libsa li Marija xtra-t bla/minghajr 
this.SGF COP.3SGF DEF-dress COMP Mary bought-3SGF without 
ma garrb-it-ha 
N-COMP tried-3SGF-3SGF.ACC

This is the dress that Mary bought without trying (it) on. GAP - RP

(47) *Uri-ni l-libsa li raj-t-ha bla 
show.2SG-1SG.ACC DEF-dress COMP saw-1SG-3SGF.ACC without 
ma xtraj-t 
N-COMP bought-2SG

Show me the dress that you saw without buying. *RP - PGAP
A dress that I went to buy without trying on did not fit me.

We conclude, then, that the parasitic gap diagnostic is applicable in Maltese, and further supports the view that Maltese RPs are SARS, that is, are anaphoric pronouns at f-structure. Given this, we can extend the analysis of bare (li) relatives given above, replacing (20) above by (49) (the only change is the addition of an anaphoric dependency \((\uparrow \text{TOPIC})_\sigma = ((\uparrow \text{RP} \text{PATH}_\sigma) \text{ ANTECEDENT})\) to allow for the use of a resumptive), and adding the resumptive path definition in (50).

\[
\begin{align*}
(49) \text{CP} & \rightarrow \epsilon \quad C' \\
(\uparrow \text{TOPIC PRED}) &= '\text{PRO}' \\
(\uparrow \text{COMPFORM} = c +) \\
(\uparrow \text{TOPIC}) &= (\uparrow \text{RGAPPATH}) \\
(\uparrow \text{TOPIC})_\sigma &= ((\uparrow \text{RP} \text{PATH}_\sigma) \text{ ANTECEDENT}) \\
\end{align*}
\]

\[
(50) \text{RGAPPATH} \equiv \{ \text{COMP} \} * \text{DIRGF} \\
\text{Constraints} \\
\text{RP} \text{PATH} \equiv \{ \text{ARGF} \} * [\text{ADJ} \in ]^* \text{GF} \\
\text{GF} \equiv \{ \text{SUBJ}, \text{OBJ}, \text{OBJ}_{\text{goal}}, \text{POSS} \} \\
\text{ARGF} \equiv \{ \text{SUBJ}, \text{OBJ}, \text{OBL}, \text{COMP} \}
\]

The general impossibility of using a resumptive in the highest subject position may be captured by an anti-locality condition (Asudeh, 2004, to appear).

\[
(51) \text{Anti-Locality Condition: (Asudeh, 2004)} \\
(\uparrow \sigma \text{ ANTECEDENT}) \neq (\uparrow \text{SUBJ TOPIC})_\sigma
\]

With the exception of the HSR and the highest OBJ condition, the set of environments within which the gap is permitted is a subset of those within which the RP is available. Because the distribution of gaps and RPs in li relatives overlap significantly, it is relatively straightforward to give an account along the lines outlined above. This closely follows the approach taken in Asudeh (2004) to Irish, Palestinian Arabic and Hebrew, languages which he argues fundamentally show non-complementarity of gaps and RPs.\(^8\) But the distributional pattern for wh-relatives in Maltese is different: RPs are systematically excluded when gaps are permitted, essentially appearing only in cases of WCO, island violations and the like. The question which arises is how best to account in the grammar for the occurrence of

\(^8\)Of course formulating all the constraints (such as WCO) would raise further non-trivial issues.
these RPs, for if we are correct in our claim that Maltese RPs in relative clause constructions are syntactically active, then they must be associated with an anaphoric binding constraint. Attempting to define a RWHRPPATH which would have the effect of permitting an RP just in case a gap were not possible does not seem a particularly attractive (or feasible) approach, and raises a number of interesting theoretical issues for future work, in particular about the analysis of RPs in languages which show both free variation and complementary distribution (in different constructions) (see Falk (2002) for some discussion in the context of Modern Hebrew).

For the moment we are inclined to think that the observed pattern of distribution of the RP in wh-relatives does in fact result from the interaction of further constraints with a rather permissively defined anaphoric binding constraint permitting RPs in wh-relatives, along the lines sketched above for li relatives. Notice however that since POSS is excluded as the bottom of the dependency for wh-relatives, it is equally excluded in such dependencies mediated by RPs, suggesting that we might want just one generalisation for the dependency, defaulting to pronominal expression when the gap is otherwise excluded, which suggests we want just one distributional statement for wh-relatives. For now, we leave this issue on this somewhat speculative note and turn in the following section to some cases where it is perhaps less clear that the RP is a SAR.

5 Across The Board

In this section we look at the distribution of gaps and RPs in across-the-board constructions. Our expectation, based on the SAR/SIR diagnostics, would be that SARs should not mix with gaps in ATB constructions. We have shown above that Maltese has SARs. However, gap and RP do occur together in ATB constructions in both types of relative clause (even though RPs are generally systematically excluded from wh-RRCs). The following examples involve coordination of IPs (that is, the TOPIC is outside the coordination). (52) shows coordination under li with a gap in the first conjunct and an optional RP in the second conjunct.

(52) Il-ktieb li qra-t Marija u kkritika-t(u) Doris
DEF-book COMP read-3SGF Mary and criticised-3SGF-3SGM.ACC Doris
the book that Mary read and Doris criticised

In similar fashion, in wh-relatives a gap is obligatory in the first conjunct but a RP appears optionally in the second conjunct.

(53) Ir-ragel 'l min irrappurtaj-t u wehhil-t(u) multa,
DEF-man ACC.who reported-1SG and CAUSE.get-1SG-(3SGM.ACC) fine,
fidal-l-u sal-ahlhar t-ax-xahar biex i-hallas
left.3SGM-DAT-3SGM till.DEF-end of-DEF-month in order 3SGM-pay
The man who I reported and caused to get a fine has till the end of the month
wh GAP GAP/RP to pay.
If the approach developed in Asudeh (to appear, 2011) is correct, then the data above might suggest that Maltese also has SIRs, that is, functionally controlled RPs or audible gaps. But if this is so, then the distribution is very different from Swedish and Vata, where they are limited to the SUBJ function. Further, while a SIR might be expected to control a parasitic gap, we see that the RP in an ATB construction appears not to be able to do so:

(54) Il-libsa li raj-t fil-hanut u Marija
    DEF-dress COMP saw-1SG in.DEF-shop and Mary
    xtra-t-ha bla ma pprava-t-*(ha)
    bought-3SGF-3SGF.ACC without NCOMP tried-3SGF-3SGF.ACC
    the dress that I saw in the shop and Mary bought without trying

Of course if the RPs found in ATB constructions are SIRs then we would not expect them to occur in ATB constructions involving positions which are not accessible to gap dependencies, namely islands. (55), which involves the WHIC, shows that they do.

(55) l-mara 'l min t-hassib-t jekk kull raqel
    DEF-woman ACC.who RECIP-thought-1SG whether every man
    i-hobb-hie-x u j-irrispetta-hie-x,
    3-loves.3SGM-3SGF.ACC-NEG and 3-respects.3SGM-3SGF.ACC-NEG
    kien-et Marija.
    be-3SGF Marija
    The woman whom I wondered whether every man loves and respects her, was Mary.

In (55) the wh-dependency passes across-the-board into an island and involves an RP in each conjunct, as gaps are not permitted in island constructions. Further in (56) the RP in the second conjunct is bound by a quantified NP head that resists an e-type interpretation suggesting that this is a true RP rather than an intrusive pronoun.

(56) Kull tifel li dik it-tifla t-af u n(a)-Iseb
    every boy COMP DEM.SGF DEF-girl 3SGF-knows and 1-think.SG
    t(i)-xtieq t-kellm-(u) ma j-rid-x
    3SGF-wishes 3SGF-speak-3SGM.ACC NEG 3-wants.SGM
    i-kellim-ha
    3-speak.SGM-3SGF.ACC
    Every boy that this girl knows and I think wishes to speak to does not want to speak to her.

At the very least, these examples indicate that we cannot simply conclude that ATB constructions involve gap-like (SIR) resumptives tout court: such a analysis
would create a number of difficulties. The alternative is that they are SARS, that is, f-structure pronouns subject to anaphoric control. However in this case too a difficulty arises: the approach to coordination (using distribution) in LFG and the disjunction of a functional control equation and an anaphoric binding equation such as that in (49), repeated here as (57), will not predict the observed behaviour.\(^9\)

An inbound functional uncertainty distributed into a coordinate structure must find some solution in each conjunct (guaranteeing across-the-board extraction) but is free to find different solutions in each conjunct (one can think of this as distributing the functionally uncertain path, and independently finding a solution in each conjunct). The crucial problem is that the required interpretation is one in which the disjunction takes narrow scope and thus itself distributes into each conjunct, permitting the combination of gap with RP.\(^10\) But contrary to this, the disjunction receives wide scope in (57), predicting that only GAP/GAP and RP/RP are grammatical.\(^11\)

\[(57)\] \[
\{ \uparrow \text{TOPIC} = (\uparrow \text{RGAPPATH}) \ |
\text{(\uparrow \text{TOPIC})}_\sigma = ( (\uparrow \text{RRPATH}_\sigma) \text{ ANTECEDENT} ) \} \]

### 6 Reconstruction

The final data set which we will discuss concerns the phenomenon of reconstruction and the distribution of gaps and resumptives in reconstruction contexts. By reconstruction we refer to the phenomenon whereby a filler shows a range of (interpretive) behaviours appropriate for its in situ position or function. Of course, in LFG, because unbounded dependency constructions (with gaps) involve functional control, those “reconstruction” properties which are f-structure related are predicted as the ‘filler’ is associated with both the discourse function and the within-clause function. Two central types of reconstruction data are binding reconstruction (e.g. of reflexive pronouns) and scope reconstruction, that is, examples such as (58) in which a gap is under the scope of a quantifier.

\[(58)\] *Which book did every boy say . . . was too expensive?*

---

\(^9\)The notion of distribution is defined by Dalrymple and Kaplan (2000):

(iii) For any distributive property \(P\) and set \(s\), \(P(s)\) iff \(\forall f \in s, P(f)\).

For any nondistributive property \(P\) and set \(s\), \(P(s)\) iff \(P\) holds of \(s\) itself.

\(^10\)Note that this alone would fail to exclude an RP from the first conjunct (for example in wh-relatives) — further conditions must constrain the occurrence of the RP. It is far beyond the scope of this paper to provide a full treatment of the Maltese ATB facts and we leave these concerns for future work.

\(^11\)We speculate that it may be possible to re-express the functional uncertainties using local names to achieve narrow scope for the disjunction, to allow GAP/RP combinations, but we do not pursue this possibility here, not least because we have already raised some doubts above about the use of the disjunctive equation itself.
Recent work on reconstruction in RRCs in Arabic dialects includes Aoun et al. (2001), Choueiri (2002), Aoun and Li (2003) and Malkawi (2009). In the approach of Asudeh (to appear) reconstruction would be evidence for SIR status (to the extent to which reconstruction itself is an f-structure phenomenon distinguishing gaps from pronouns). Given the emerging understanding of reconstruction in (other) Arabic dialects, our major aim in this section is straightforwardly empirical, contributing a brief comparison of Maltese with its close Semitic neighbours.

Aoun et al. (2001) suggest that in Lebanese Arabic (LA), reconstruction status correlates with islandhood status. (59) illustrates reconstruction into the position of a RP in a non-island construction. On the other hand, the ungrammaticality of (60) indicates that an RP in an island resists reconstruction.

(59) \( \text{talmiiż-}a_1 \ l-kāsleen \ ma \ baddna \ nyābbir \ wala \ m\text{ʕallme}_1 \ ?ānno \ huuwwe \)  
student-her the-bad NEG want.1P tell.1P no teacher that he za\'ybar \ b-l-faḥṣ.  
cheated.3SM in-the-exam  
Her bad student, we don’t want to tell any teacher that he cheated on the exam. (LA: Aoun et al 2001:381)

(60) \*\( \text{talmiiż-}a_1 \ l-kāsleen \ ma \ bkiina \ ma\text{ʕ} wala \ m\text{ʕallme}_1 \ ?abl-ma huuwwe \)  
student-her the-bad NEG talked-1P with no teacher before he yu\(\text{sul}. \)  
arrive.3SM  
Her bad student, we didn’t talk to any teacher before he arrived. (LA: Aoun et al 2001:381)

Subsequently, Choueiri (2002) and Aoun and Li (2003) show that definite and indefinite RRCs show different patterns in contexts in which there are no island violations. (61) involves a relative clause attached to a definite head (\( SSuura \) ‘the picture’) and allows reconstruction into the RP position as in (59) above. On the other hand, reconstruction is not possible in (62), which involves a relative clause attached to an indefinite head (\( Suura \) ‘a picture’).

(61) \( \text{chuf} \ [SSuura \ tba\dot{c} \ bint-}a_{1,2} \ yalli \ \text{[kəll]} \ mwazzafe|_1 \ ?\text{aalit} \)  
saw.1SG the-picture of daughter-her that every employee said.3SGF  
\( ?\text{ānno \ badda} \ t\text{čal}c-}a_{2,3} \ \text{bi-maktab-}a \)  
that wanted.3SGF hang.3SGF in-office-her  
I saw the photo of her daughter that every employee said she wanted to hang in her office. (LA: Malkawi 2009: 69)
I saw a photo of her son that every employee said she wanted to hang in her office. (LA: Malkawi 2009: 70)

This provides the more complex pattern of data concerning the availability of the RP in reconstruction environments which is summarised in (63).

<table>
<thead>
<tr>
<th>Lebanese Arabic</th>
<th>Definite Relative</th>
<th>Indefinite Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island</td>
<td>No Reconstruction</td>
<td>No Reconstruction</td>
</tr>
<tr>
<td>Non-Island</td>
<td>Reconstruction</td>
<td>No Reconstruction</td>
</tr>
</tbody>
</table>

In Jordanian Arabic (JA), however, a different pattern emerges. Malkawi (2009) shows that weak (inflectional or clitic) resumptives behave differently from strong pronoun resumptives in JA. Weak resumptive elements, as used in the examples below, show reconstruction effects irrespective of the presence of an island for both bound variable and reflexive binding tests, in relatives as well as in other dislocation structures.12 (64)-(65) respectively contain a definite and indefinite head for the relative clause and in each case, reconstruction into the site of the (weak) resumptive is possible, giving the distributive reading, whereby each father saw a picture of his own daughter. A similar pattern is found for reflexive binding (examples omitted for lack of space).

saw.1SG picture of-son-her every employee said.3SGF that
badda  t?allc?-a₂ bi-maktab-a
wanted.3SGF hang-3SGF in-office-her

I saw the picture of his daughter that every father loves. (JA: Malkawi 2009:62)

(65) *chuft  [Surit bint-uh₁]₂ illi kul ?ab₁ bi-hib-ha₂ (hi)₂
saw.1SG picture daughter-his that every father IMPFV-love-3SGF (her)

I saw a picture of his daughter that every father loves. (JA: Malkawi 2009:62)

The examples in (66) and (67) involve RPs contained within islands, but here again we see reconstruction. Again, similar facts obtain with reflexives. (68) provides a summary.

(66) *chuft  [Suura la-?ibn-ha₁ illi z?iltu la?annu kul
saw.1SG the-photo of son-her that were.angry.2P because every
mwazzafah₁ bidha  t?allii?-ha₂ (hi)₂ bi-l-maktab
employee.F wants.3SGF hang-3SGF (her) in-the-office

I have seen the photo of her son that you are angry because every employee wants to hang (it) in the office. (JA: Malkawi 2009: 63)

12Glosses and translations are given in French in the original. Some minor alterations and corrections have been made in translating these to English.
(67) *chuft* *Saara*₂ *la-*ʔ*ɪnb*-ha₁ ʕ*čiltu*  *la-*ʔ*ɪannu* kul  mwazzaʃaḥ₁

saw.1SG photo of-son.her were.angry.2P because every employee.F

*bida*ha  tכ*ָlili*-ʔ*ha₂ (hi)₂ bi-l-*maktab*

wants.3SGF hang-3SGF (her) in-the-office

I have seen a photo of her son that you are angry because every employee wants to hang (it) in the office. (JA: Malkawi 2009: 64)

(68)

<table>
<thead>
<tr>
<th>Jordanian Arabic</th>
<th>Definite Relative</th>
<th>Indefinite Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island</td>
<td>Reconstruction</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>Non-Island</td>
<td>Reconstruction</td>
<td>Reconstruction</td>
</tr>
</tbody>
</table>

Although it would be premature to draw any firm conclusions at this stage, our preliminary investigation appears to show that Maltese patterns with JA (as described by Malkawi). (69) and (70) illustrate reconstruction (into the site of a resumptive) in non-island contexts for definite and indefinite relatives respectively.¹³

(69) *Raj*-t  *ir-*ritratt  *tat-*tifla  *tagh*-ha₁ j li  Pawlu j-(a)hseb

saw-1SG DEF-photo of.DEF-girl of-3SGF.ACC COMP Paul 3SGM-think

*li*  [kull impieɡaʃ-a]ᵢ  qal-ɛt li t-*rid*  

COMP every employee-SGF said-3SGF COMP 3SGF-want

*id-*dendl-ʊⱼ  fl-*uʃʃiʃja*  *tagh*-haᵢ  

3SGF-hang-3SGF.ACC in.DEF-office of-3SGF.ACC

I saw a photo of her daughter which Paul thinks that every employee wants to hang in her office.

(70) *Ta*-w-ni  *ritratt*  *tat-*tifla  *tagh*-ha₁ j li  qal-u  

gave.3PL-1SG.ACC photo of.DEF-daughter of-3SGF.ACC COMP said.3-PL

*li*  [kull *waʃda]ᵢ  t-(i)xtieq  *id-*dendl-ʊⱼ  fl-*kamra*  

COMP every one.SGF 3SGF-wishes 3SGF-hang-3SGF.ACC in.DEF-room

*tagh*-ha  

of-3SGF.ACC

They gave me a photo of her daughter which they said that every woman/one wishes to hang in her room.

(71) *Sib*-t  *ir-*ritratt  *tal-ID*  *tieg*-uᵢ j li  int n-(a)hseb  

Found-1SG DEF-photo of.DEF-ID of-3SGG.ACC COMP you 1SG-think  

t-*hassib*-t  jekk  Pawlu₁  kien-x  iddispjaʃaʃi li  

RECIPI-wondered-2SG whether Paul was.3SGM-NEG sad.SGM COMP 

tilʃ-ʊⱼ  

lost.3SGM-3SGG.ACC

I found the photo of his ID which I think you were wondering whether Paul was upset that he lost.

¹³Note that we use LDD examples to enable the use of an RP.
I met a friend of his who I think Paul already knew before going out with (her).

What we see from these data is that it appears always to be possible to reconstruct into a resumptive in Maltese (more work is needed to establish whether we see the same pattern with reflexives). As noted above, if reconstruction is indicative of SIR status, then this data set is inconsistent with the results of other diagnostics, which support SAR status for Maltese resumptives. On the other hand, the status of the reconstruction diagnostic itself may be open to question.

7 Conclusion

This paper has provided a first description of Maltese RRCs showing that Maltese, unlike many Arabic dialects, has wh-relatives alongside non wh-relatives. Each type of RRC permits a resumptive, but with a different distribution. On the basis of the major diagnostics concerning islandhood, weak crossover and control of parasitic gaps, we have argued that Maltese has syntactically active resumptives, that is, resumptives which are subject to anaphoric binding, captured by an anaphoric control equation. We have raised a number of issues concerning how the distribution of gap/RP is to be captured in the grammar. Our discussion of two further putative diagnostics raised some further questions. We argue that the interaction of RPs with ATB phenomena does not, on balance, suggest that Maltese has SIR as well as SAR (because the RP does not itself pass further SIR tests like PG) but does leave an analytic issue for further work. As for reconstruction we suggest that factors such as definiteness of the antecedent and whether or not the RP is in a SAR or a SIR-diagnosing position are not relevant to reconstruction in Maltese.

References


