De-Linking Syntactic Case and Agreement in Maltese[1]

1 INTRODUCTION

Syntactic theories concerned with the interface between nominal licensing and verbal morphology often take there to be an important relationship between verb agreement and case, with a particularly tight connection often assumed between subject agreement and nominative case (see Chomsky, 1995; 2001; Pesetsky & Torrego, 2001; 2007, among others). This is predicated upon a number of empirical observations, but perhaps most famously the inability of English infinitival clauses to support a nominative subject (1). The conclusion from data such as these is that nominative case is licensed by finite T, the same syntactic entity responsible for the realization of subject-verb agreement.

(1)   Joseph is sorry [(***Sophia**) to leave].

This tight connection has not always gone unchallenged, however, and this view has had resurgent popularity in recent years (Zaenen *et al.*, 1985; Marantz, 1991; McFadden, 2004; Bobaljik, 2008; *i.a.*). Proponents of this view find evidence from a variety of contexts where case dissociates either from agreement itself or where agreement dissociates from structural correlates of case-marking.

In this squib, we will argue that a novel piece of evidence for this separation of nominative case and agreement comes from what we will term a PERIPHRASTIC CAUSATIVE construction in Maltese (Semitic; Republic of Malta):[2]

(2)   …għalhekk **ġiegħel**   lil   kullħadd **jitgħallem** il-lingwa   Għarbija.
       …thus   **make.3.S.M** DOM everyone **learn.3.S.M** DEF-language Arabic
       "…thus [it/he] made everyone learn Arabic."   (Borg *et al.*, 2012:parl1775)

This construction involves the lexical verb *ġiegħel* selecting for what we will argue is a reduced clause complement involving neither syntactic tense, nor syntactic aspect, nor the ability to license nominative case. Nevertheless, the embedded verb in this construction (*jitgħallem* in (2)) requires full morphological ϕ-agreement.[3] Maltese periphrastic

causatives such as (2) therefore provide a novel argument for the formal syntactic separation of case and agreement.

2   MISSING SYNTACTIC PROJECTIONS

The argument from Maltese *ġiegħel* constructions that case and agreement must be separated rests on the observations that subject agreement on the verb in the complement of *ġiegħel* is present independent of both syntactic finiteness and nominative case. This section details the absence of syntactic correlates of finiteness by showing that there are no morphological or semantic correlates of tense or aspect present in the complement of *ġiegħel*. This is done first for tense and mood (§2.1) and then for aspect (§2.2).

2.1   TENSE/MOOD

Maltese allows two important elements in the tense layer of the clause more generally: (1) future marking *se* and the auxiliary verb *kien* which appears in periphrastic tense constructions (see, *e.g.,* Borg & Azzopardi-Alexander, 1997 for discussion of these lexical items more generally).[4] Importantly, even with supporting context, *se* is impossible in the complement of *ġiegħel*, as seen in (3):

(3)   Pietru se iġiegħel   lil Marku (**se**) jiekol   l-ikel.
      Peter will make.3.S.M.IMPF DOM Mark (**will**) eat.3.S.M.IMPF DEF-food
      "Peter will make Mark eat the food (in the future)."

The same thing is also true of the auxiliary verb *kien* which appears in periphrastic tense constructions roughly equivalent to English *have/be* + participle sequences. Assuming that *kien* is hosted in T (Tucker, 2013:ch.2), its presence serves as a morphological indicator of the featural content and/or presence of tense in the Maltese clause. Once again, these periphrastic tense constructions are impossible in the complement of *ġiegħel*, and so *kien* cannot appear:

(4)   *Pietru ġiegħel   lil Marku **kien** jiekol   l-ikel.
       Peter make.3.S.M.PERF DOM Mark **had** eat.3.S.M.IMPF DEF-food
      Intended: "Peter made Mark be previously eating the food."

If *kien* cannot appear, then minimally we must conclude that T is featurally devoid of the ability to bear past tense morphology. However, one could still imagine a situation in which finite T is present but incapable of hosting morphological material in this construction.

However, in addition to the complete absence of morphological exponence in T, it is also impossible to interpret T in the complement of *ġiegħel*, as well. Tense-dependent adverbs such as *il-bieraħ*, "yesterday" cannot be interpreted with embedded scope when *ġiegħel* is present, as shown in (5):

(5) Marju ġiegħel lil   Albert jiekol   l-ikel   tiegħ=u **il-bieraħ**.
     Mario made   DOM Albert eat.3.S.M.IMPF DEF-food of=him **the-yesterday**
     Possible: "Yesterday, Mario made Albert eat his food."   (*yesterday > made*)
     Impossible: "Mario made Albert eat his food yesterday."   (**made > yesterday*)

Given that T can be neither morphologically realized nor semantically interpreted in the complement of *ġiegħel*, it is only possible to maintain the presence of T by stripping it of all semantic and morphological indications of finiteness in the language. In what follows, we will assume that T is absent completely from the complement of *ġiegħel*, though nothing presented here precludes an analysis which takes a non-finite T to be present. Given that non-finite T is typically taken to be incapable of hosting or triggering agreement (see Chomsky's (2000) notion of $\phi-$defective T), any analytical option chosen for Maltese precludes the presence of $\phi-$agreeing T.

2.2 ASPECT

An identical series of arguments can be presented for the morphological expression and semantic interpretation of aspect in Maltese. Maltese, like other Semitic languages, has two morphological forms for synthetic expression of tense and aspect on verbs: the perfect and imperfect (Borg & Azzopardi-Alexander, 1997). In the complement of *ġiegħel*, only the imperfect verb form is possible, as seen in (6):

(6) Luqa ġiegħl   =u   **jitlaq**   / ***telaq**   mill-belt.
     Luke made.3.s.m =3.s.m **leave.3.s.m.impf** / **leave.3.s.m.perf** from.the-city
     "Luke made him leave from the city."

It is reasonable to assume that the imperfect form is the morphological default in Semitic in general (Benmamoun, 1998), and so facts such as (6) can be taken to suggest that the complement of *ġiegħel* is not specified for aspect.

However, for this argument to go through, however, it must also be the case that aspect is not interpretable in the complement of *ġiegħel*, and this is true. Aspect-sensitive adverbials such as *digà*, "already" show the same scope asymmetries relative to *ġiegħel* that were seen for tense-sensitive elements in the previous section:

(7) Pietru kien   ġiegħel   lil Marku jiekol   l-ikel   **digà**.
     Peter had.3.s.m made.3.s.m dom Mark eat.3.s.m def-food **already**.
     Impossible: "Peter made Mark already eat the food."   (*made > already*)
     Only: "Peter already made Mark eat the food."   (**already > made*)

The conclusion from this set of facts, therefore, must be that the complement of *ġiegħel* has no aspectual information, either. This is an important observation because it provides some analysis independence for the claim that the inflectional layer is not present in its normal agreeing form in the complement of *ġiegħel*. Here we have followed Tucker (2013:ch.2) in assuming that T is diagnosed by the presence/absence of *kien*, but it remained possible to assume that this was incorrect or, more radically, that agreement is hosted on Aspect in Maltese. The absence of aspectual information precludes this possibility, as well, meaning that none of the elements typically comprising inflectional layers between *v*P and CP are present in this reduced complement.

3 Persistent Agreement

Despite the absence of syntactic tense, mood, or aspect, agreement on the embedded predicate in this *ġiegħel* construction is obligatory in Maltese. This can be seen in (8a) for number agreement and (8b) for gender agreement.

(8)a.   Louis ġiegħel   lit-tfal   **jiek -lu** / ***-ol**   fażola.
          Louis made.3.S.M DOM.DEF-children **eat   3.P** / ***3.S.M** beans
          "Louis made the children eat beans."

    b.   Louis ġiegħel   lit-tifla   **tiekol**   / ***jiekol** fażola.
          Louis made.3.S.M DOM.DEF-girl **eat.3.S.F** / ***3.S.M** beans
          "Louis made the girl eat beans."

Given the conclusions from the preceding section, it is impossible to account for this obligatory agreement in a framework which takes subject agreement to be computed by a syntactic operation inexorably linked to syntactic finiteness defined as the presence of T or Asp.

However, these data also pose a problem for theories which take nominative case and morphological agreement to be inexorably linked, as it can be demonstrated that the argument which controls the agreement on the embedded predicate is necessarily accusative, not nominative. For one, Maltese has differential object marking of accusative human nominals, and as all the examples of human nouns given thus far show, differential object marking is present for the thematic subject of the embedded predicate/object of *ġiegħel*.[5] Furthermore, when a clitic is present, this clitic is demonstrably *accusative*, not nominative:

(9)   Louis ġiegħl   **=u**   / ***huwa**   / ***=lu**   jiekol il-għaġin.
          Louis made.3.S.M **=3.S.M.ACC** / **3.S.M.NOM** / **=3.S.M.DAT** eat.3.S.M DEF-pasta
          "Louis made him eat the pasta."

Only morphological accusative case is possible here, not nominative *huwa*. It therefore cannot be the case that nominative case is present in the complement of *ġiegħel*. Putting this together, one requires a theory of agreement in Maltese which does not tie the presence of subject agreement to the obligatory presence of nominative case assignment or syntactic finiteness.

4   Two Possible Theories

We now turn to two possible theoretical interpretations of case-less agreement phenomena more generally. The first, originating with Marantz (1991) but very popular in recent years, takes case to be derivative of syntactic representation in ways which allow it to be de-linked from agreement computation. Here we sketch one possibility for maintaining a derivational syntactic approach to agreement in conjunction with this representational theory of case. The second, proposed by Bobaljik (2008), goes a step further takes agreement to be a wholly postsyntactic operation that is derivative of case assignment in Marantzian terms. We will not attempt to decide between these two theories here, but instead will note one conceptual worry with the second approach and highlight the fact that both approaches are conceptually possible for explaining the Maltese facts.

4.1   Case ≠ Licensing

A very influential proposal involving separating case from agreement takes case to be crucially separated from nominal licensing and appears first in Marantz (1991).[6] This approach assumes that nominals are not licensed by case in the syntax, but rather by the extended projections which contain them; this "frees up" case assignment to be a morphological phenomenon. Specifically, m(orphological)-case is assumed to be assigned according to a disjunctive assignment principle that follows the hierarchy in (10):

(10)   Case Realization Disjunctive Hierarchy   (Marantz, 1991::24)
    a.   Lexically governed case (obliques)
    b.   Dependent case (accusative and ergative)
    c.   Unmarked case (nominative and absolutive)

Furthermore, this assignment procedure is relativized to a case assignment domain defined by the lexical heads present in that domain — here, V+T. Dependent accusative case is assigned to a nominal in that domain (see Marantz, 1991:25 for specifics), and unmarked nominative to any remaining nominal. Crucially, this m-case realization oc-

curs in the mapping to morphological structure — in modern terms, we can take this to be post-Spell-Out. This shunting of morphological case realization away from both licensing and the pure syntactic derivation allows agreement to be computed in essentially any way the analyst deems appropriate without recourse to statements about the tight connection between case/Case and agreement.

For Maltese, these m-case assignment principles will handle *giegħel* and its complement with only minimal alteration. In the embedded clause, we need to only assume that accusative case can be assigned in the domain of *v*P in the absence of T or C — this can be done by assuming that Marantzian m-case assignment proceeds by PHASE (Chomsky, 2000; 2001) where *v*P and CP are phases in Maltese. This will ensure that the complement of the embedded verb receives dependent accusative. The embedded thematic subject, however, does not receive m-case in the embedded cycle, since none of Asp, T, or C are present. The next available cycle is the matrix CP containing *giegħel*, where the embedded subject qualifies for dependent accusative.

With this case-assignment procedure in place for *giegħel*-containing sentences, all that is left is to specify how agreement works, and here we can rely on the standard AGREE theory of Chomsky (2000; 2001) and much subsequent work. We can take agreement to be defined be an Agree relation which operates in the syntax when triggered by ϕ-feature-bearing heads. In the matrix clause containing *giegħel*, this is trivially matrix T and accounts for the subject agreement on *giegħel* itself. But what about the complement clause? Here the answer depends on whether one takes T to be present but non-finite or absent completely as discussed in §2.1.

In the first case, one is forced to abandon the notion that ϕ-defective heads cannot be involved in Agree relations. This is already something that has been proposed in other work, such as Rezac (2004); Béjar & Rezac (2003); Béjar (2003) and Béjar & Rezac (2009); among many others. The second case is more theoretically interesting, because it requires a more nuanced approach to how agreement is computed in the embedded clause. Specifically, if the highest projection in the embedded clause is *v*P, there is

no head which c-commands the embedded subject argument to trigger Agree. Some syntactic head must be present, and it must be capable of probing in an Agree relation.

The solution to this puzzle, we would like to suggest, comes from negation in the embedded clause. Specifically, Maltese allows constituent negation in the complement of *ġiegħel*, as (11) shows:

(11) Tano ġiegħel   lil   Xandru **ma** jiekol   lil   **ħadd**.
      Tano made.3.s.m dom Xander **neg** eat.3.s.m dom **anyone**
      "(*lit.*)Tano made Xander not eat anyone."

In (11) we see the NPI *ħadd* licensed by the constituent negation *ma* in the embedded clause. If we take negation to be hosted in a ΣP following Laka (1994), all that is required is to assume that ΣP can probe for agreement, and the result is a complete clausal structure with Agree relations as in (12) where embedded subject agreement is realized without T or nominative case assignment.

(12)
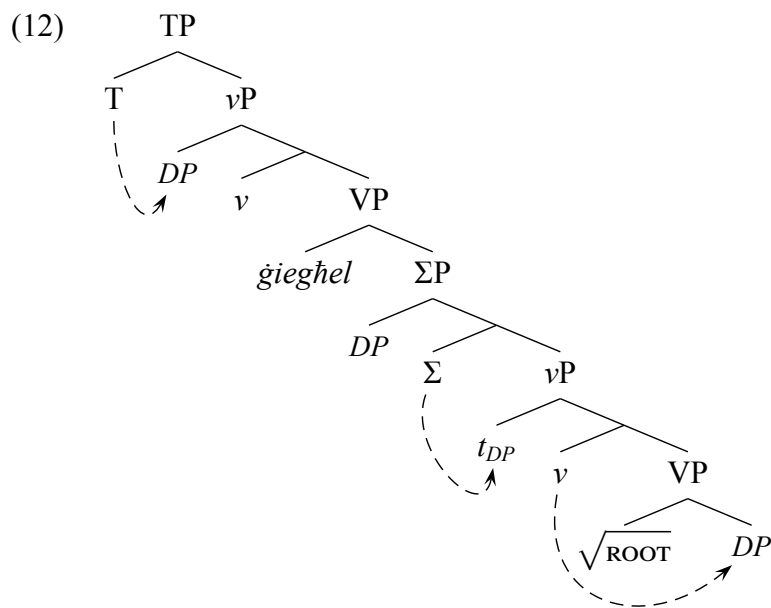
4.2   Postsyntactic Agreement

The second of these approaches takes agreement to be a postsyntactic operation insofar as the valuation of agreement is computer over m-case values as assigned by the Marantzian system sketched in the previous section (Bobaljik, 2008). Specifically, this

approach takes agreement to be read off m-case in accordance with the principle in (13):

(13)   The controller of agreement on the finite verbal complex (Infl+V) is the *highest accessible* NP in the *domain* of Infl+V.

Like the principle for computation of m-case in the preceding section, all that is needed to make this proposal account for the Maltese facts is to tinker with the definition of a DOMAIN such that Infl/V is not crucially required. If one takes the entire reduced clause in the complement of *ġiegħel* to be the domain over which accessibility is computed, then the [spec,*v*P] position which hosts the thematic subject of *ġiegħel* at first Merge is accessible for agreement. This predicts that subject agreement should appear on the embedded verb, exactly as needed.

The Maltese data do not allow for differentiation between this approach to agreement and the structural one sketched in Marantzian terms in the preceding section. However, there is one typological/conceptual argument concerning this proposal which, to our knowledge, has not appeared in print previously. In the exact system proposed in Bobaljik (2008), differences between grammatical function and m-case assignment are resolved for agreement computation such that the *most accessible m-case* is the controller of agreement. This is done according to the hierarchy in (14):

(14)   Unmarked Case > Dependent Case > Lexical/Oblique Case

That is, in languages where dependent case-bearing nominals are accessible for agreement, unmarked case-bearing nominals must also be accessible. Similarly, in languages where obliques are available as controllers of agreement, dependent and unmarked case-bearing nominals must also be. The argumentation in Bobaljik (2008) includes comprehensive discussion of why this is an important component of the postsyntactic agreement model and generally trivially true for nominative-accusative languages with subject and object agreement, as well as quirky dative case.

For ergative-absolutive languages, however, there are more moving parts and predictions of this model change accordingly. The important insight of the original Marantz

model is that ergative-absolutive languages appear to reverse the dependent-unmarked case asymmetry found in nominative-accusative languages such that absolutive case is unmarked and ergative case is marked. Taking (13) and (14) together, this predicts that ergatives (dependent case-bearing nominals) control ergative agreement in transitives because they are the structurally highest nominal which is accessible in the V+Infl domain according to (14). Absolutive arguments control absolutive agreement because, after the assignment of dependent ergative case, they are the only remaining nominal. They receive unmarked absolutive case and, according to their lower syntactic position, absolutive agreement.[7]

But what happens if a syntactic process were to reverse the hierarchical relations between ergative and absolutive arguments? This can happen *a priori* in OS languages or in ergative-absolutive languages with object shift and/or scrambling, for instance. According to the m-case assignment principles in Marantz (1991), nothing about the assignment of m-case changes. The domain for dependent case assignment (*v*P) still contains an ergative in [spec,*v*P] and an absolutive available for unmarked case below this. But the predicted agreement relations would change. A higher absolutive is accessible for agreement according to (14), and therefore should control the ergative agreement on the finite verbal complex. The ergative, which is also accessible, should then control absolutive agreement. This is therefore a predicted "agreement reversal" whereby a thematic object of a transitive appears with ergative agreement morphology by virtue of a syntactic movement operation. Such a reversal would be driven by any syntactic configuration in which an ergative NP remains *in situ* but an absolutive NP moves higher than *v*P.

Do such predicted agreement reversals actually occur? We know of no documented cases of this sort of behavior in ergative-absolutive languages. One of two conclusions must therefore follow, assuming that this gap is not accidental or a product of underrrepesentation of ergative-absolutive languages in the theoretical literature: (1) the postsyntactic agreement hypothesis is false on its face or (2) it must be revised in a

more nuanced fashion to specify which domains allow assignment of agreement *before* syntactic movement (a nontrivial task given the postsyntactic nature of the agreement computation). In the case of (2), the theory sketched in §4.1 begins to appear more parsimonious.

5 CONCLUSIONS

In this paper we have demonstrated that at least one kind of complement in Maltese arguably exists without morphological or semantic correlates of tense or aspect, yet still shows morphological agreement. Here, this is complements to the matrix verb *ġiegħel*, but future work should examine whether this is the only such matrix predicate in the language. Moreover, this demonstration concerning embedded agreement is largely possible because of a typological fact about non-Hebrew Semitic languages in general: they lack any form which correlates well with an infinitive in, *e.g.*, Indo-European languages. A profitable line of further inquiry would ask to what extent fully inflected forms appear in the complement of matrix predicates without overt nominative case.

We have suggested here that the proper understanding of this phenomenon in Maltese takes nominative case to be divorced from the assignment of subject agreement. To that end, any of the available proposals for separating case from agreement are possible explanations for Maltese. Since the construction in question here does not allow for distinguishing some of these proposals, some amount of future energy should be directed toward teasing out the empirical differences between these distinct approaches to case-free agreement. Regardless of the exact makeup of the resulting theory, however, we now have another argument for de-linking the tight connection typically assumed between the assignment of case and the computation of agreement.

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Notes

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[2]In the glosses for Maltese data, we use the following abbreviations: 1 = first person, 2 = second per-

son, 3 = third person, s = singular number, p = plural number, nom = nominative case, acc = accusative case, dat = dative case, m = masculine gender, f = feminine gender, def = Semitic definite article, caus = causative, comp = complementizer, dom = differential object marking, neg = negation, impf = imperfect aspect, and perf = perfect aspect. All examples without citation of the provenance are from field notes. Data also come from Borg *et al.* (2011; 2012) and are presented with spelling errors corrected but otherwise unaltered. References to data from the corpus are identified by corpus identifier tag for the text they appear in.

[3]For simplicity and ease of exposition, we only consider *ġiegħel* here; however, we believe that these arguments extend to a range of potentially non-causative predicates which take such reduced clause complements, such as *irrid*, "he wants;" see Haspelmath & Caruana (2000). Similar verbs exist in Arabic, as well, such as the cognate of *ġiegħel*, *dʒaʕal*. We lack the relevant data to make the comparison to Arabic here, however.

[4]In this squib we will remain agnostic to the categorical status of *se* as a tense or mood particle; if a mood analysis is more appropriate for *se*, the linear position of the element between the subject and the verb require this position to be in the inflectional layer, adjacent to T.

[5]This differential object marking is accomplished with the preposition *l-* which cliticizes to the clitic definite article *il-*. *il-* itself in turn shows assimilation of the liquid to following coronals. The result is a *liX-* differential object marker.

[6]Since this time, however, this theory has appeared in many other places in the literature. See, for instance Harley (1995); McFadden (2004); Baker & Vinokurova (2010); Folli & Harley (2007); and Norris (2014), among many others.

[7]Note that in intransitives, dependent case is not assigned owing to insights derived from Burzio's Generalization (Burzio, 1986). See Marantz (1991) for implementational details and Bobaljik (2008) for the implications for agreement typology.