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The next century of Maltese linguistics

Abstracts

Kirsty Azzopardi

The argument structure of motion verbs in Maltese

This study sets out to investigate argument structure and linking in Maltese, focusing mainly on verbs of motion. Despite the ever-growing body of research focusing on the typology of motion verbs, especially that concerning the S-framing and V-framing dichotomy proposed by Talmy (1991), such studies have not yet been conducted in Maltese. It would be interesting to address such questions keeping in mind that Semitic and Romance languages, with which Maltese had considerable contact, are generally treated as V-framing languages.

In order to establish the type of syntactic framing found in Maltese, a number of speakers will be asked to narrate the events portrayed in *Frog, where are you?*, a picture book by Mercer Mayer (1969). The frog-story has been used in numerous studies on the lexicalization patterns of motion-event descriptions in different (typologically-diverse) languages (cf. Berman and Slobin 1994, and Strömqvist and Verhoeven 2004, among others). The data collected from the frog-story narrations will be complemented by examples found in the MLRS corpus of written Maltese. The issue of linking between semantics and syntax will be approached from a construction grammar perspective, by which the construction (and not the verb) is considered to play a central role in sentence. However, it is the interaction of the construction and the verb that bears the whole weight of the sentence (Goldberg 1995). In light of this, this study will examine the relationship between motion verbs in Maltese and the constructions in which they occur.

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Word formation in Maltese: restrictions in loan derivational suffixes

Raffaello Bezzina

The features and factors which condition the attachment of different affixes to bases are usually discussed in the domain of word formation (Bauer, 2001). In the literature, these factors, which specify the productivity of individual affixes, are presented as word-formation rules (WFRs) and are categorised into two: constraints, which are of a more general nature, and restrictions, which are language-specific (Gaeta, 2015; Rainer, 2005). The latter result from the interaction of morphology with other components of the language and have recently been investigated in numerous studies (e.g. Katsouda, 2016). Not much has been written on this subject in studies on the morphology of Maltese and this paper is meant to fill in this gap.

In this paper I present an analysis of four loan suffixes, *-uż*, *-ezza*, *-erija* and *-aġni*, by drawing on an extensive corpus of relevant complex formations extracted from the MLRS corpus. The bases with which these suffixes occur are discussed from a phonological, morphological, syntactic, semantic and pragmatic perspective. Reference is also made to the concept of blocking, which appears to play a role in the derivational process. Comparing loan formations with local formations, I show that some restrictions have been retained from the source language whilst others have been lost.

Key words: complex word, derivational suffixes, word formation, concatenative morphology, restrictions, local formations
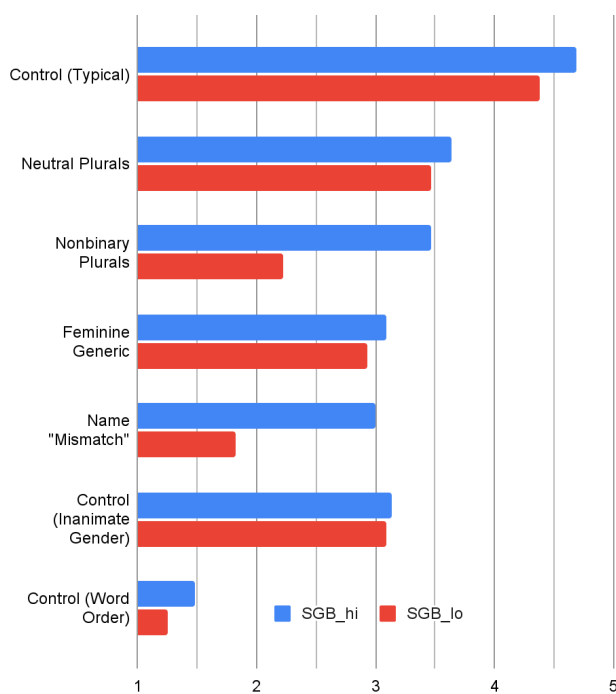
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Acceptability of nonbinary and gender-neutral constructions in Maltese

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Use of singular *they* as a component of gender-fair language in English continues to grow (Bjorkman, 2017; Konnelly & Cowper, 2020), and similar movements toward gender-fair/neutral/nonbinary language are underway in other languages (Sendén et al., 2015, *inter alia*). Acceptance of such changes often correlates with nonlinguistic attitudes about gender (Bradley, 2020). Malta has been a global leader in policy toward transgender, nonbinary, and intersex rights, but is Maltese changing accordingly regarding how gender is expressed? Discussion of such issues is largely confined to activist circles, with little consensus, and lower awareness among the Maltese-using community as a whole. This is the first part of an investigation to explore what kinds of "nonbinary" Maltese are accepted by users, and to what degree English trends and nonlinguistic social attitudes drive (or inhibit) gender-related changes in Maltese. Participants rated a variety of sentence types and completed the Transgender Attitudes and Beliefs Scale. Singular indefinites with plurals (4, "neutral plurals") were rated above the scale midpoint of the scale, but lower than controls. Nonbinary plurals (1–2) and name mismatches (3) diverged depending on participants' beliefs about gender; those with strong binary gender ideology rated them lower; other rated them at or above the midpoint. Implications for change in Maltese, individual differences, and correlations of English ratings by the same sample will be discussed.

Acceptability ratings of Maltese sentences

(1) **Names + plural**
Joseph jaraw it-televixin waqt l-ikel.
Joseph watch-3pl. the-television during the-lunch
"Joseph watches television during lunch."

(2) **Specific + plural**
Dawk l-impjegat tawna skont.
that-pl. the-employee gave.3pl.-prn.2pl. discount
"That employee gave us a discount."

(3) **Names + "mismatched" morphology**
Anna huwa infurmat dwar l-istorja ta' din il-belt.
Anna be-3sg.masc wise-masc about the-history of this the-city
"Anna is wise about the history of this city."

(4) **Indefinites + plural**
Xi hadd kielu il-kejk!
somebody-m.sg. ate-3pl. the-cake
"Someone ate the cake!"

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The Imperfective Cycle as manifest in Maltese **Maris Camilleri**

That the imperfective domain can encapsulate habitual and continuous readings as it expresses the internal temporal structure of a situation is typologically well-known (cf. Comrie (1976)). The same holds true of the Maltese imperfective verb-form, as has been identified in a number of scholarly work. This study delves deeper into the subject by focusing upon the intricate relation that manifests itself between the imperfective form and its association with distinct readings depending on different syntactic contexts. The verb-form's function and distribution is then compared with the distribution of the active participial form and the construction with *qed*/*qiegħed*; two PROGRESSIVE ASPECT-realizing strategies in the grammar. The discussion will be further enhanced by integrating reference to both copular and non-copular structures, while the characterisation of the facts will be reviewed in light of Deo's (2015) Imperfective Cycle.

Two main claims will be argued for: The first is that there exists a major split between copular vs. non-copular structures. Based on the Imperfective Cycle, the structure with *qed*/*qiegħed* displays its most advanced semantic use within the copular context, in contrast to its quasi-strict PROGRESSIVE-realization in non-copular contexts; even if therein, it incidentally displays more advanced morphophonological grammaticalisation. Secondly, matrix vs. embedded syntactic contexts contribute to the imperfective form's association with different stages in its own development. By embedded contexts, reference is here being made to both complement-type embeddings, e.g., *bdejt niekol* lit. 'I start.PFV I eat.IPFV', meaning both: 'I started to eat' and 'I started eating', as well as clausal adjunction of the type exhibited in (1) below:

(1) Kif kien   j-hewden   hekk,   M ħass   ...
    as   be.PFV.3SGM 3-rave.IPFV.SGM like that M feel.PFV.3SGM

    As he was raving in this way, M felt ...   Korpus Malti

By illustrating how the above two claims pan out in the system, this study will not only contribute to our morphosyntactic knowledge of the Imperfective's domain, but will additionally help us further reconstruct how the change took place and where it targeted what, while lending the grammar a syntactico-semantic test with which to identify syntactic embedding in asyndetic contexts.

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L-ikla t-tajba-Guten Appetit: 17th century Maltese cuisine through the "Regole per la lingua maltese" - With some linguistic considerations

In this paper, I identify the terminology in the *Regole per la lingua maltese* that refers to food products. Broadly speaking these terms have been sub-divided into twelve different categories, which go by the name of: *Bread; Pasta products and other starters; Cereals; Drinks; Fruit; Vegetables; Pulses; Spices; Milk products; Poultry; Typical Maltese products and Miscellaneous.*

I then refer to Agius de Soldanis's *Damma* and Joseph Aquilina's *Maltese-English Dictionary* to verify the historical evolution of the term originally recorded by the *Regole* in the course of the 17th century.

While a good number of the terms have survived today in their original meaning, some of them have changed meaning or indeed have become obsolete.

Here, I shall limit myself to the "*Bread*" category. For example, the *Regole* records fetul, fetietel, guastella, longa (M 1091) / guastella, longa, **fetul, fetielel** (I 1709)

The term appears in Agius de Soldanis, s.v. *fettul*, but he gives 'pastella' [batter] as meaning of *fettul*, which has nothing to do with 'guastella longa'. On the other hand, Aquilina completely ignores the culinary meaning and gives only the meaning: "Strip (of wool, etc.) twirled by one's fingers; distaff; cigarette".

ċobz bel feugia is given as 'pane mal conciato nel forno' (M 1783) / pane mal conciato nel forno, **ċobs bel feugia** (I 2498), in the *Regole per la lingua maltese.* The meaning here is 'badly baked bread'. Agius de Soldanis gives 20 different types or parts of bread in his *Damma*, but he makes no reference at all to ħobż bil-fewġa. Aquilina also makes no reference at all to it in his dictionary. Had the term already disappeared in the relatively short span of a century?

The case of **rida**, pannata, pangrattato (M 2969) / panata, **rida**, pan grattato (I 2488), meaning 'breadcrumbs", is even more drastic since there is no mention at all of it in Agius de Soldanis and Aquilina.

The paper should therefore come up with a terminological list of food products that, having been listed by the *Regole,* still survive today, but also those that have got lost in the course of the past four centuries, thus becoming obsolete.

Arnold Cassola

Malta, 18 March 2023

How to build a cathedral   **Slavomír Čéplö**

The lack of a comprehensive and accessible grammar of Maltese is a major problem not only for linguists working on Maltese, but among the Maltese educators and the interested public as well. The closest thing to it, Borg and Azzopardi-Alexander (1997), remains eminently useful, but the description of Maltese it established has been expanded in multiple ways, and its idiosyncratic form makes it difficult for any non-specialist to access.

In this paper, we propose a roadmap to a new comprehensive grammar of Maltese (codenamed "il-Katidral"). This roadmap is based on the following assumptions about the nature of *il-Katidral*:

1. **Accessible**:
    a. *il-Katidral* must be written in both English and Maltese.
    b. It should be readily understood by both a specialist and an educated layperson.
    c. As such, it must not be beholden to any linguistic framework, be it formal or just of the "this is how things are done" type.
    d. Consequently, a clear and concise metalanguage should be established a priori and updated as necessary.
    e. *il-Katidral* must be available to all and readily updated; this is ideally achieved by establishing an online version of the grammar.
2. **Comprehensive**:
    a. *il-Katidral* should cover all aspects of the language at the same level of thoroughness.
    b. *il-Katidral* will not be a prescriptive grammar, but rather reflect the Maltese language as it is spoken and written…
    c. … while also maintaining clear distinction between what is generally accepted and what is special/marked usage.
3. **Accountable**:
    a. *il-Katidral* must be based on data collected and analyzed in a transparent manner.
    b. To achieve its goals, *il-Katidral* must be the product of a consensus, not the work of a single person.
    c. At the same time, the process must be driven by one or two people, otherwise nothing will ever get done. This person (or persons) must also have the authority to make decisions in cases when – inevitably – no consensus can be reached.
    d. Consequently, a system of governance must be in place to safeguard the transparency and accountability of the process.

This paper briefly addresses the reasoning behind these principles and proposes a way to implement them. Additionally, we will demonstrate some of the more practical aspects of the work involved (metalanguage selection, entry design, workflow) and show several examples of what (parts of) the finished *Katidral* may look like.

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A corpus-driven account of indirect object indexing in Maltese

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Verbal indexing of the indirect object (IO) in the presence of a co-referential nominal has received some attention in the literature on Maltese (e.g. in Borg & Azzopardi 2009, Camilleri 2011, Sadler & Camilleri 2012, Souag 2017: 59-60). Of main interest in this regard are the opposition to parallel structures without index, as the latter is not syntactically required, as well as word order alternations, as shown in (1) and (2). The interpretation of the index in examples like these has been that of marking a topic (e.g. Fabri 2020). However, this information-structural category constitutes an umbrella term for a pool of different features relating to attention management or referent activation (Ozerov 2018, 2021). These should be established and accounted for in their own right.

(1)   *Lil*   *Ġillu*   *qatt*   *m'*   *għidnielu*   *xejn.*

      IO   Ġillu   never   NEG   say.PST.1PL=IO.3SGM   nothing

      "To Ġillu, we never said anything to him."

<div align="right">bulbulistan v3 - 2010 John Bonello - It-Tielet Qamar.txt</div>

(2)   *Dan*   *irridu*   *ngħidulu*   *lill-*   *poplu.*

      this.M   1PL.IMPF-want-PL   1PL.IMPF-say-PL=IO.3SGM   IO-DEF   people

      "This we want to say to them, to the people."

<div align="right">bulbulistan v3 - 20041215_211d_par</div>

This paper sets out to empirically re-evaluate these constructions without any preconceptions as to their function. To do so, we first analyze the distribution of IO constructions in the bulbulistan corpus (Čéplö 2018). This analysis includes a quantitative comparison with direct object constructions, as well as an examination of the semantic criteria involved in the selection of IO indexing and issues of obligatoriness.

Based on this analysis, we then select a suitable dataset to conduct a more detailed analysis. Our hypothesis is that the choice of indexing an overt IO NP is determined by probabilistic rules, induced by an interplay of variables. To test this, we annotate for a number of semantic and syntactic variables, including word order, part of speech of the NP, referent semantics, identifiability, textual givenness, text type etc. These we will then use to perform statistical analysis determining i) which of the variables are most strongly associated with indexing in the presence of an NP, as well as ii) how the variables interrelate.

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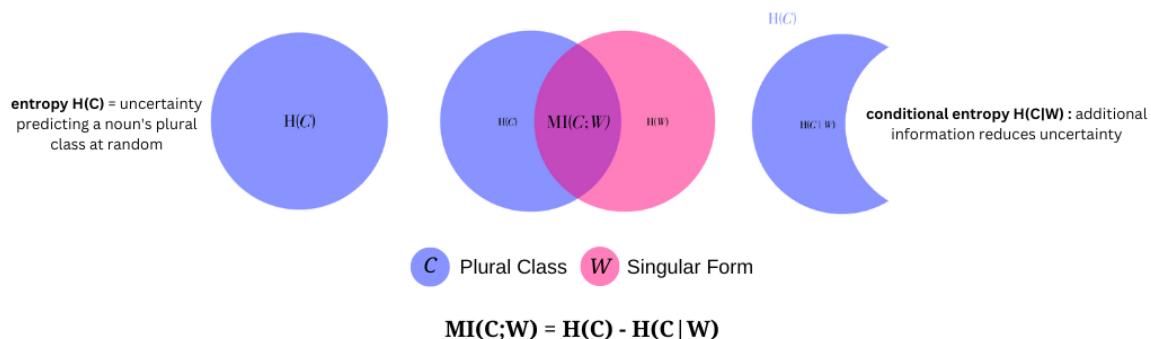# Quantifying Factors Shaping the Morphological Integration of Non-Semitic Nouns in Maltese

Sara Court, Andrea D. Sims, and Micha Elsner

The Ohio State University

This project investigates the extent to which the phonology, semantics, and etymology of nouns predict Maltese nominal plural inflection at two levels of inflectional organization: inflection type (affixal or templatic) and inflectional allomorph (specific suffixes and CV templates). We analyze lexical and morphological integration as an extension of the Paradigm Cell Filling Problem (PCFP) in theoretical morphology (Ackerman et al., 2009) using the information theoretic methods developed by Williams et al. (2020). We interpret our results within the context of Matras's (2009) description of a unified multilingual repertoire and Haugen's (1950) characterization of borrowing as the outcome of analogical processes used by speakers in multilingual discourse.

We use Normalized Mutual Information (NMI) to quantify the extent to which phonological and semantic similarities across the lexicon are predictive of nominal plural inflection in data (Nieder et al., 2021a,b) compiled from the Korpus Malti v. 2.0 and 3.0 (Gatt and Čéplö, 2013). Under the hypothesis that associative relationships among frequently co-occurring material may promote historical continuity in inflectional behavior, we also quantify the NMI shared by a noun's etymology and plural class as a measure of the predictive strength of conservative forces, for example token frequency (Krause-Lerche, 2022), hypothesized to resist analogical classification and change.

Our current results indicate system-level phonology and etymology are each independently predictive of Maltese plural inflection class structure, with phonology more predictive than etymology overall. Implicative relationships are also found to be stronger across inflection classes defined at the allomorph level, regardless of concatenative type. We find an effect of type frequency, with larger inflection classes predicted more often than smaller classes, but no evidence for the predictive coherence of macro-classes defined with respect to concatenative type (i.e., broken/sound plurals). These findings support a unified account of the development of Maltese morphology, in contrast with "hybrid" accounts.

entropy H(C) = uncertainty predicting a noun's plural class at random

H(C)

MI(C;W)

conditional entropy H(C|W) : additional information reduces uncertainty

C Plural Class   W Singular Form

MI(C;W) = H(C) - H(C|W)

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		TYPE	ALLOMORPH
H(C|G)	🔵	0.81	2.65
NMI(C;W|G)		0.21	0.42
NMI(C;E|G)		0.13	0.22
NMI(C;E;W|G)		0.06	0.15
NMI(E;W|G)		0.61	0.61

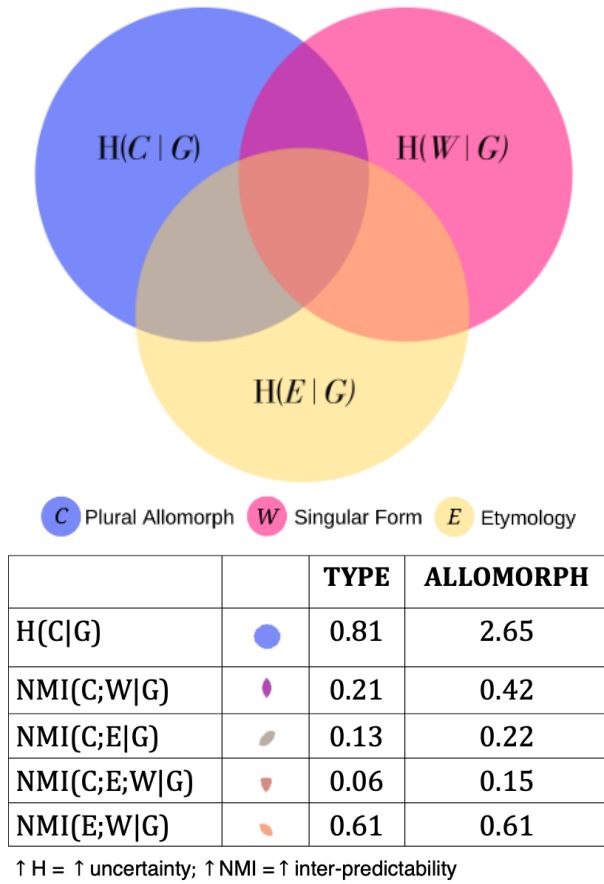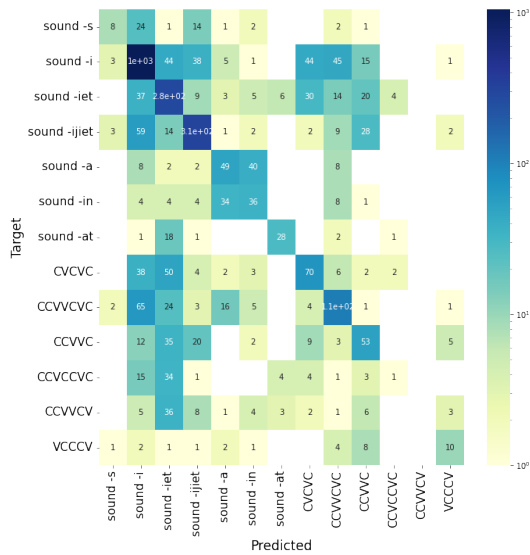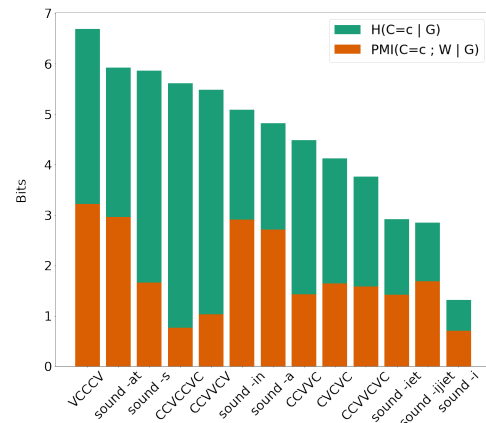↑ H = ↑ uncertainty; ↑ NMI = ↑ inter-predictability

Figure 1: Normalized Mutual Information (NMI)

(a) Confusion matrix: predicting plural allomorph from phonological form

(b) Partial Pointwise Mutual Information (PMI) shared by word form and class for each allomorph class. Note that classes are presented in order of increasing type frequency (and thus decreasing surprisal)

Heading towards definitions of silence: An analysis of synonymous nouns

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In this day and age, noise of various kinds has become an ever-growing concern. As our surroundings grow louder, humans are increasingly seeking silence. Having precise lexemes to describe silence, both in literary and non-literary texts, is desired and of the essence.

In this study, we propose an in-depth analysis of the so-called synonymous nouns: *silenzju* ('silence'), *skiet* ('silence'), *ħemda* ('stillness'), and *kwiet* ('quiet'). The nouns *silenzju* (derived from Italian) and *skiet* (derived from Arabic) are more synonymous in nature because of their different etymology. But to which extent are the Semitic-derived nouns *skiet*, *ħemda,* and *kwiet* synonymous?

The thesaurus *Id-Dizzjunarju Malti u teżawru ta' Malti mħaddem* (2016) shows that these four nouns are synonymous. Barring *skiet,* which is not listed as a synonym under the headword *ħemda* (except as its inflected form *sikta*)*, silenzju*, *skiet*, *ħemda*, and *kwiet* are all given as synonyms of each other. Furthermore, an analysis of the collocational behaviour of these synonyms in the Maltese corpus, the Maltese Language Resource Server v.3, will shed further light on the near-synonymous character of these lexemes. In ascending order, *kwiet* occurs 3,924 times, *skiet* occurs 2,354 times, *silenzju* occurs 2,150 times, and *ħemda* occurs 348 times.

Considering these prior observations, we ask: (1) Is there a difference in meaning between these synonyms? and (2) What specific contexts are these nouns related to? In *Speaking Silences* (1994), Vogel Ettin claims that, "Usage [of the terms related to silence], however, tends to obscure rather than solidify those differences over time. Therefore, it does not seem appropriate to insist on rigorous differentiating among such related terms, except insofar as some particular context suggests." Following this, a closer look at these synonyms in various texts might dictate the nuances of each lexeme and suggest a more precise meaning.

Keywords

silence, stillness, quiet, lexeme, semantics, collocations, corpus

Ray Fabri

Secondary predication in Maltese

Secondary predication in Maltese has not been explored in any detail (see Mifsud 2014 and Muscat 1921 for some discussion). Generally two types of secondary predication are assumed (see , among others), namely, descriptive (1) and resultative (2).

1. Kiel   il-laħam   nej
   eat.SGM.PERF   DEF-meat.SGM raw.SGM
   'He ate the meat raw.'

2. Żeba'   l-ħajt   isfar
   paint.SGM.PERF   DEF-wall.SGM   yellow.SGM
   'He painted the wall yellow.'

Moreover, depictive predicates can be subject oriented or object oriented. Thus, (2) is object oriented while (3) is subject oriented.

3. Zeba'   l-ħajt   għarwien
   paint.SGM.PERF   DEF-wall.SGM   naked.SGM
   'He painted the wall naked.'

This study aims to provide a characterisation of secondary predicate construction in Maltese by exploring its semantics and morphosyntax. For example, one question is whether there are restrictions on what can serve as a possible predicate in such constructions and, if so, what are they. For example, to what exten are the following possible, if at all?

4. ?Sa   jistad-u   l-ibħr-a   vojt-a
   FUT fish.PL.IMPERF DEF-sea.PL   empty-PL
   'They fished the seas empty.'

5. ?Għaffeġ   il-kartun-a   ta-l-ħalib   ċatt-a
   squash. SGM.PERF   DEF-carton-SGF of- DEF-milk flat- SGF
   'He squashed the milk carton flat.'

Another issue concerns agreement, cliticisation and word order (for example, (6a) and (6b)). What is possible and what do the facts suggest about the morpho-syntax of the construction?

 6a)   *Żeba'   isfar   il-ħajt
         paint.SGM.PERF   yellow.SGM DEF-wall.SGM

   b)   Żebgħ-u   isfar   il-ħajt
         paint.SGM.PERF-3SGM yellow.SGM DEF-wall.SGM

This talk aims to add another piece in the Maltese grammar jigsaw puzzle.

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Cases of "double-fold insularity:" analogies and contrasts in terms of multidimensional experiences of the Gozitan dialect and the Székely-Csángó language island (Sprachinsel) vis-a-vis the Arabic-Maltese and Hungarian-Székely Sprachräume respectively

Márton Iványi

As both the Gozitan dialect and the Csángó language islands can well be considered offshoots of broader, standardised languages, certain corresponding presumed analogies and apparent differences provide important lessons for various angles of dialectology and sociolinguistics.

Both cases fit into larger and even larger categories, obviously with their own respective nuances, since Maltese is now considered a separate language from Arabic for a number of reasons, while Csángó is also viewed a language island derived from Hungarian.

Although relatively distant from linguistic family perspectives, certain mechanisms indicate parallels such as the formations while being exposed to surrounding Indoeuropean language influences (Italian, English and Romanian respectively), development of phonetic archaisms regardless of obvious reasons, striking features of phonetic parallels compared to other dialects of broader Maltese (cf. Puech 1994: 18-21; Lipnicka 2022: 236) and Hungarian dialects (Juhász 1997) respectively; clusters of complex (industrialised) vs. folk societies (Weinreich 1986: 28-29), or certain conundra regarding the perceived or real multilayers of the compositions of speakers (Brincat 2011; Hoppa 2011) in both cases. The dialect and the language island in question are themselves multilayered, as there are at least 16 Gozitan dialects according to Klimiuk (2022: 224) and within the Csángó language island, three distinctive variants are to be found (Hoppa 2011: 46).
However, obvious differences, inter alia such as the conditions of insularity (literal island character i.e. regional vs. social causes, as to Gozitan, predominantly physical island characteristics can be attributed (Camilleri Grima 2014), while Csángó language island is rather mostly the consequence of historical-sociological grounds) should not be disregarded either.

All in all, important lessons for dialectology and sociolinguistics can be drawn on the basis that Gozitan and Székely-Csángó share features while the two can well be contrasted as well.

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Differentiation and classification of Gozitan dialects

Without doubt, dialectological research contributes to our understanding of the linguistic and cultural diversity of a community. In the case of Maltese, the dialects of Gozo represent a particularly interesting area that enriches our knowledge of the Maltese linguistic context and dialectal continuum.

The dialects spoken in Gozo are traditionally classified as rural dialects of the Maltese language. Hans Stumme refers to them as '*Išmām*-Dialekte', and considers the vowel shift *$\bar{a}$ to *o*/*u* (*tafxīm*/*ʔišmām*) as their distinctive feature.

Field research in Gozo, however, shows that there are further differences within the dialects spoken there, which may indicate existing dialectal subgroups within Gozitan dialects. In this presentation, I discuss selected dialectal differences and, on this basis, propose preliminary classifications within the group of dialects spoken in Gozo. To carry out the analysis, I use data collected during fieldwork (2015, 2017, 2018–2021) in the different dialects (17 areas/locations) based on sources such as recordings of spoken texts (narratives and dialogues) and language questionnaires. I mainly consider phonological/phonetic, morphological and, to a lesser extent, lexical features. In the presentation I use dialect maps from the language atlas of Gozo (forthcoming).

The presentation and the research carried out show the diversity of dialects on the island of Gozo and highlight the need for further research in this field in Malta as well, despite the considerable marginalisation of this type of study. Above all, it is of particular importance for the protection and preservation of the linguistic heritage of the Maltese archipelago, as it is the dialects that form a unique part of the linguistic landscape, reflecting the local and cultural contexts of both islands and are important for the linguistic and cultural identity of the community.

Keywords: dialectology, Gozo, Malta, dialect classification, Maltese language

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The Maltese broken plural: Getting to the root of the issue
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Traditionally, the Maltese broken plural has been argued to be derived from its singular counterpart via a series of rules (Mayer et al. 2013, Schembri 2006, 2012, Borg & Azzopardi-Alexander 1997, etc.). This proposal argues instead that the broken plural is derived directly from the abstract root in the syntax. Using a Distributed Morphology framework (Halle & Marantz 1993), I argue that the [+plural] feature is realized in two distinct nodes of the tree: in the *n* node for the broken (non-concatenative) plurals and in the NUM node for the sound (concatenative) plurals. Additionally, I argue that due to the rich linguistic history of Maltese, two types of abstract roots exist in the Vocabulary List: 'Root' roots which spell out tri/quadriliteral roots, and 'Stem' roots which spell out stems:

(1)   a. Root: $\sqrt{\text{KTB}} \rightarrow \sqrt{\text{KTB}}+n \rightarrow$ *ktieb, kotba* (book/s)
              b. Stem: $\sqrt{\text{ZIJU}} \rightarrow \sqrt{\text{ZIJU}}+n \rightarrow$ *ziju* (uncle)

      I argue that, following the theory of phases and cyclic spell-out proposed in Chomsky (1998), category-defining heads (such as *n*) trigger a phase of spell-out. In (1b), the *n* node is grammatically empty (i.e. no [+plural] feature), so the output of the cyclic spell-out triggered by *n* is '*ziju*'. This stem merges with a [+plural] feature higher in the tree (NUM), which spells out a plural suffix *-ijiet*. In (1a), the *n* node is not grammatically empty; it contains a [+plural] feature. When spell-out is triggered by *n,* the abstract 'Root' root and the [+plural] feature are spelled out together. 'Root' roots are tagged to select certain prosodic allomorphs (which realize [+plural]), resulting in prosodic variation in the broken plural form.

      This analysis is supported by the derivation of deverbal agentive nouns, which always take a sound plural suffix, and the derivation of the 'broken' diminutive, which cannot be pluralized morphologically.

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Maltese auditory word comprehension explained through discriminative learning

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A central question of word recognition is the role of morphology for lexical processing. Some suggest a morphological decomposition (Taft & Forster, 1975; Wurm, 2000) as a crucial component of lexical access, others attribute processing differences to the word as a full form (Tyler et al., 1988). Yet, the role of meaning is left unspecified.

With the Discriminative Lexicon (DL), Baayen et al. (2019) propose a model of the mental lexicon that uses a computational implementation of W&P Morphology (Blevins, 2016) stating that whole words and their paradigms are the basic units of morphology. Within DL, comprehension is seen as a mapping of phonology onto meaning and production as a mapping of meaning onto phonology, with meaning playing an explicit role in both processes.

In this study, we use the DL model to model the production and comprehension of Maltese verbs, and we use measures from the model (Nieder et al., accepted) to explain the results of a subliminal priming study on Maltese verbs reported in Ussishkin et al. (2015). 10.127 verb forms from the MLRS Korpus Malti (Gatt & Čéplö, 2013) represented our phonological forms, 300-dimensional word-embeddings (Joulin, Grave, Bojanowski, Douze, et al., 2016; Joulin, Grave, Bojanowski, & Mikolov, 2016) represented their meaning.

Our model learned mappings between phonology and meaning with a high accuracy: 80.04% for comprehension and 81.08% for production. In addition, 1) the extent to which the prime pre-activates the meaning of the target and 2) how well the form of the prime matches its meaning, improved the fit of a statistical model fitted to the experimental data, suggesting that processing differences between priming conditions can be attributed to differences in meaning of prime-target pairs.

Going beyond the world of forms by computationally including meaning, this study arrives at a successful classification of Maltese verbs and their lexical processing.

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Complex vowels in Maltese: length and diphthongization

ABSTRACT (word count: 300)

A complex vowel in Maltese is a phonological expression occupying two slots on the timing axis: a nuclear head and an extension. Each position is identified by two (de)synchronized gestures. On the stricture tier, consonantal segments are headed by C; vowels by V; extensions by Ø, that is a temporal slot not occupied by C or V. On the melodic tier C, V, or Ø are characterized by monovalent element(s) I, U and/or A, interpreting an articulatory/auditory gesture.

In the model implemented in Puech (2023) the Obligatory Contour Principle prevents two Cs or Vs from being contiguous. By contrast, phonological expressions like CVØC are allowed. "Vocalic glides" (cf. Maddieson 2007) are represented by Ø on the stricture tier, and I, U or A on the melodic tier. I will study four types of complex vowels:

1- early-modern Maltese phonemic pair /ŭ vs. û/ (Vassalli's glyphs 1796 & 1827);
2- dialectal diphthongs /eṷ vs. oṷ/ and (Gozitan) /eị vs. oị/;
3- pharyngealized (mid)low vowels (Stumme 1904, Aquilina 1959, Schabert 1976);
4- (half)long vowels in mainstream Maltese.

Complexity arises from (de)synchronization between stricture and melody in 'VØ' phonological expressions. The vocalic melodic gesture may be extended to the empty position to derive long vowels; anticipation of melody leftward from I/U derives falling diphthongs; fusion of V-and-Ø melodic gestures yields complex monophthongs.

In the case of pharyngealized vowels, V is preceded and/or followed by the guttural glide |Ø;A|, which in (pre)modern Maltese is the reflex of pharyngeal approximant ʕ. In present-day Maltese, these complex vowels are no longer pharyngealized but still variably lengthened.

I conclude that length is not a primitive in Maltese phonology. Diphthongization in complex vowels involves a vowel-like glide; another type of diphthongs results from V preceded and/or followed by an underlyingly consonant-like glide (approximant *j ~ w*), e.g. *bejt/mewt, tajjeb/dawwal, qarréj, wasal/jikteb*.

The Effect of Language Context on Attention in Maltese-English Bilinguals: Combining a Cognitive and Sociolinguistic Approach

Jessica Schulz

Research shows that bilinguals activate both their languages even in single-language contexts (Kroll et al., 2015). According to Green (1998), bilinguals reactively inhibit the non-target language whilst using the target language. Indeed, many studies suggest that bilinguals outperform monolinguals on tasks measuring non-verbal cognitive control (e.g. Costa et al., 2008). However, other studies show no differences between monolinguals and bilinguals on cognitive control tasks (e.g. Paap & Greenberg, 2013). The *Adaptive Control Hypothesis* (Green & Abutalebi, 2013) and *Control Process Model of Code-Switching* (Green & Li Wei, 2014) accommodate conflicting evidence by focusing on one important factor: the *context of language use*. According to these theories, different interactional contexts place different demands on cognitive control processes.

The present research combines a cognitive and sociolinguistic approach, by considering specific factors that characterise the Maltese sociolinguistic context. The experiment investigates the effect of language context on attention in Maltese-English bilinguals. Two groups forming part of the Maltese sociolinguistic context participated in the study: individuals who speak both Maltese and English (ME) and individuals who speak English but do not speak or understand conversational Maltese (E). Participants took part in a group discussion about favourite food and cooking with 2-3 other participants, followed by an attention task and a language questionnaire. Since ME individuals need to inhibit the production of Maltese when conversing with E individuals, it is predicted that ME participants who took part in a group discussion amongst ME and E participants show enhanced performance on the ensuing attention task, compared to ME participants who took part in a group discussion amongst ME participants. In addition, analyses addressing the association between specific patterns of Maltese and English language use and attentional control will be presented.

Poststructuralist approaches in the study of gender-neutral possibilities in Maltese

Romario Sciberras

The grammatical category of gender in Maltese has received increased attention in the past few decades with linguistic studies beyond its descriptions in Maltese grammars (namely the contributions of Farrugia, see 2003, 2018). With the binary categorisation of all nouns – including personal nouns – into the (generally) mutually exclusive masculine and feminine, and a correspondence between the biological sex of the noun's referent and its grammatical gender, the language poses challenges to speakers who do not identify within the dominant binary of gender identity. This study considers grammatical gender as only *one* of the structures available for the linguistic construction of gender, together with lexical gender, social gender, and referential gender. The relevance of these terms – previously discussed in detail by Hellinger and Bußmann (2001) in an introduction to a descriptive project of gender across diverse languages – for a poststructuralist perspective of gender and language is highlighted by Motschenbacher (2010). A poststructuralist approach holds that these four structural categories of linguistic gender representation are major mechanisms in the binary construction of gender. Apart from this, language in this approach is viewed as the result of discursive materialisation, and not as an abstract phenomenon which precedes its use, implying that linguistic categories are also unstable and capable of change. This is a new point of view for Maltese sociolinguistics, and it is indispensable for the present study which aims to present the main challenges in the language in terms of gender neutralisation as well as to give preliminary suggestions for linguistic alternatives that challenge the binary system while nevertheless existing within it. These aims are achieved by an analysis of how lexical, social, grammatical, and referential gender operate and interact with one another on the language's semantic, grammatical, and referential levels, wherein lies also the possibility for the discussion of the aforementioned challenges and alternatives.

Key words: gender binary; gender neutralisation; poststructuralism; structural gender categories; structural gender linguistics

Ten Years of Research on the Dialects of Malta and Gozo

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In this paper, we give an overview of the work carried out over the past decade on the dialects of Malta and Gozo, specifically on lexical, phonetic/phonological, and morpho-syntactic features, as well as to plan out a route for further research on Maltese dialectology. The purpose of the multi-pronged project presented here is fourfold. Firstly, to put together a bibliography of studies on the dialects in Malta and Gozo. Secondly, to collect, organise and classify the data collected by researchers such as Aquilina and Isserlin, and make them available to researchers. Thirdly, on the basis of old and new data collected and/or recorded through elicitation methods of different kinds, to map out the main dialects of Malta and Gozo. Finally, to find out to what extent, if at all, differences in pronunciation correlate with differences on other levels, namely, grammatical (morpho-syntactic) and lexical.

Vowel:sequences:in:Maltese:verbs

Michael Spagnol & Chris Lucas

Generally:speaking,:studies:of:Maltese:make:three:observations:on:the:vowel: sequences:of:Form:1:verbs,:focusing:overwhelmingly:on:sound:verbs:(CvCvC).

First, there are six sequences in the perfect, as shown in the table below.

Sound CvCvC		
a-a	*ħarab*	to escape
a-e	*qaleb*	to turn
e-a	*feraħ*	to rejoice
o-o	*ħolom*	to dream
i-e	*żifen*	to dance
e-e	*qered*	to destroy

Second, in the imperfect some vowel patterns remain unchanged (*ħarab*, *jaħrab* 'to escape'), while others change (*naxar*, *jonxor* 'to hang washing'). The range of vowel sequences is greater in the imperfect, with sequences such as *i-o* (*daħal*, *jidħol* 'to enter') and *i-a* (*feraħ*, *jifraħ* 'to rejoice'), which are not available in the perfect (cf. Aquilina 1959: 254–255; Brame 1972; Puech 1978; Hume 1991, 1996).

Third, some studies observe that vowel quality may be conditioned by the adjacent root consonants (cf. Sutcliffe 1936: 71-74; Cremona 1973: 45; van Putten 2020: 83–85). Hoberman (2007: 268) observes, for example, that the sequences *a-e*, *e-e*, and *e-a* in Form I "occur only in the neighborhood of the gutturals *għ*, *ħ*, *h*, *q*", while the *o-o* sequence "occurs almost exclusively with gutturals."

Extending this earlier work, the present paper offers a comprehensive systematisation of the patterns of vowel correspondences in Maltese perfect and imperfect Form 1 verbs of all types (i.e. sound, geminate, weak-initial, weak-medial, and weak-final), based on an exhaustive list drawn from Aquilina's (1987-1990) dictionary. In addition, building on the initial work by van Putten (2020), it traces the phonological and analogical evolution of this system from that of earlier Arabic (as analysed by Guerssel & Lowenstamm 1996), through

analysis of a database consisting of the aforementioned list of Maltese verbs, together with their cognates in Classical and Tunisian Arabic.

But, but, but

On the coexistence of the adversative connectors *imma*, *iżda*, and *però* in contemporary Maltese

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Maltese boasts the three adversative connectors *imma*, *iżda*, and *però* which are registered as synonyms by Agius (2010: 383). Accordingly, the English translations for each of the three connectors provided by Aquilina (1987: 569, 595; 1990: 1050) comprise *but* and *nevertheless*. However, Serracino-Inglott (1981: 56) assumes that *però* is used to express a particularly strong contrast. Aquilina (1987: 569, 595; 1990: 1050) who classifies all three of the connectors as conjunctions derives *imma* from Arabic *'ammā* 'but' and *però* from Italian *però* 'but, however' whereas *iżda* is depicted as a univerbation of truncated *issa* 'now' and the proximal demonstrative *da(n)* 'this'. Thus, the ternary set of adversative connectors consists of an inherited Semitic element, a local but purely Semitic innovation, and a function word borrowed from Italian. The question arises whether we are facing the competition of three functionally equivalent connectors or a division of labour whose internal organisation still needs to be investigated thoroughly.

Since both the reference grammar (Borg/Azzopardi-Alexander 1997: 79-80) and Mauri's (2008) (areal-)typological study only mention Maltese *imma*, there still are many empirical gaps to be filled before we can claim that the research question has been answered satisfactorily. My talk is intended to serve as starting signal for a dedicated research project focusing on the system of Maltese connectors – be they adversative or other.

At least in terms of frequency, the three items under inspection behave differently. A preliminary search of the Korpus Malti 3.0 (as of 9 March, 2023) yielded the results displayed in Table 1.

connector	tokens	share	texts	per million
imma	401,788	59.3%	49,650	1,611.94
iżda	225,837	33.4%	82,775	906.04
però	49,494	7.3%	9,844	198.57
total	677,119	100%		

Table 1: Frequencies of adversative connectors in the Korpus Malti 3.0

The lion's share of the tokens goes to *imma* with *iżda* as runner-up still claiming a third of all instances of adversatives. In contrast, *però* is clearly only a minor option. Interestingly, the second best *iżda* is attested in considerably more texts than *imma*. This seemingly paradoxical distribution alone calls for being scrutinized more closely. In my talk, I address this issue by way of trying to determine the (semantic, pragmatic, or structural) factors which regulate the differential use of the three connectors.

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Christian terms of Arabic or Semitic origin in Maltese. Their history, etymology, and continuation of use

This paper is an attempt to summarize various theses concerning the Christian vocabulary of Semitic origin (mainly Arabic) preserved in Maltese. Based on sources, the author presents the history and etymology of selected, possibly the oldest Christian terms and traces their continuation in the language after modern times. Some etymologies, e.g. the words Milied, Mulej, have been verified, especially on the basis of earlier medieval Arabic dictionaries. The Christian-Judaic root of some Arabic words , commonly associated with the Muslim tradition, is also shown.

Maltese (and Maltese English) prosody research: back and forth from the lab (in)to the wild

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Post-lexical prominence is a complex phenomenon which we generally assume to be somewhat "parasitic" on lexical prominence in that it is generally assumed that lexically stressed syllables, together with boundaries, serve as the anchoring points for various types of tonal events. Research on Maltese (and, by extension also on Maltese English) prosody shows that, as in other languages, prominence is often achieved by the association of tonal elements with sentence stress, so-called pitch accents. Tonal association with secondarily stressed elements and/or right edge boundaries is also possible. More interestingly in the context of this talk, evidence is emerging for tones having a different type of association at the left edge, precise domain still to be determined. What degree of prominence is signalled in these latter cases is not yet known.

This talk starts by reporting on a lab study of the intonation of wh-question intonation in Maltese. The study clearly shows the presence of a H tonal element which is anchored at some sort of left edge rather than to a lexically stressed syllable. Examples from more naturalistic data demonstrating left edge H tones occurring in a wide variety of structural contexts are provided, and the necessity of returning to the lab in order to work out the precise nature of the domain of association of these tones illustrated.

A sketch is provided of what we know so far (and do not yet know) about the contribution of different tonal elements to signalling prominence in Maltese (and Maltese English), attempting, in so doing, to throw light on the role of prosody in conveying meanings of different sorts. I will focus in this talk on the story that is emerging in the context of both lab experiments and research involving the use of more naturalistic data with a view in particular to addressing questions such as:

1) Do speakers use left edge tonal elements in a systematic way?
2) Do left edge tones serve, for example, to orient a listener's attention, and if so, to what?
3) More generally, is it possible to identify any acoustic or other evidence for a prominence-cueing function of prominence in such left edge tones on the part of the producer, and are left edge tones which are not associated with lexically stressed syllables perceived as prominent by the listener?

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Maltese First Language Acquisition of the Plural   Michela Vella

First language acquisition has been studied extensively both in individual languages and cross-linguistically, with various approaches and theoretical frameworks being adopted. Yet, research on Maltese First Language Acquisition (MFLA) is lacking.

In this light, I am currently carrying out my doctoral research, which this paper is based on. The aim of my ongoing research is to present a detailed description of the developmental patterns and stages that characterise MFLA, with a special focus on the ways in which features of Maltese morphosyntax are acquired. A two-year longitudinal design has been chosen for this study so as to capture the language development of participants from about 18-60 months. A total of 11 Maltese-dominant participants have been recruited and visited at least twice. The participants were aged 18-36 months at the initial data collection stage. Data collection sessions take place at 4/6-month intervals, depending on the participants' age at the initial data collection stage. Both naturalistic (free-play) and controlled (comprehension and production tasks) data are being collected during video-recorded 45-minute sessions. The data will be analysed with the aim of establishing a set of stages at which Maltese morphosyntactic elements are acquired.

In this paper, I will present a preliminary analysis of sound and broken plural data collected through a specifically-designed production task and during free-play from children aged between 3-4 years (36-48 months). An error pattern approach to the analysis was taken. Moreover, data from this study will be compared to data and results in papers on FLA in spoken varieties of Arabic (e.g., Saiegh-Haddad, Hadieh & Ravid, 2012) and studies conducted in the context of Maltese singular-plural mappings (e.g., Nieder, van de Vijver & Mitterer, 2021).

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Coordinated compound prepositions in Maltese

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Maltese shows variation in coordinating constructions involving identical prepositions. A preposition can either be used in front of each complement or just in front of the first one (EQUI-P-deletion, cf. Stolz and Ahrens 2017; Borg and Azzopardi-Alexander 1997: 87). In this talk, I take a closer look at compound prepositions (cf. Stolz 2020) in these constructions.

Compound prepositions show even more variation in coordinations. Examples (1) to (3) illustrate possible patterns for the compound preposition *permezz ta'* 'by means of'.

(1)   **_permezz_**   **_ta'_** _taxxi_ _u_ **_permezz_**   **_ta'_** _ħlasijiet_
     by_means_of of   tax:PL and **by_means_of of** payment:PL
     '**through** taxes and **through** payments'   [Korpus Malti 3.0, parl3313]

(2)   **_permezz_**   **_ta_**-_t-televiżjoni_   _u_   **_ta_**_r-radju_
     by_means_of of-DEF-television and **of**:DEF-radio
     'on television and radio'   [Korpus Malti 3.0, news110592]

(3)   **_permezz_**   **_ta'_** _messaġġ_   _u_   _telefonata_
     by_means_of of text_message and phone_call
     '**through** a text message and a phone call'   [Korpus Malti 3.0, news5553]

Prepositions that only call for a second preposition when their complement is pronominal are also looked at more closely as they show an interesting pattern under coordination as in (4). Only the second part of the compound preposition *ta'* is used in front of the second complement here.

(4)   _li_ _kienu_   **_viċin tiegħ_**-_i_ _u_   **_ta_**-_l-familja_   _tiegħ_-_i_
     SUB be:3PL.PFV **near of**-1SG and **of**-DEF-family of-1SG
     'who were **close to me** and my family'   [Korpus Malti 3.0, news118684]

This talk is a first step in describing Maltese compound prepositions in coordinating constructions systematically relying on corpus data from the *Korpus Malti 3.0* (Gatt and Čéplö 2013). The prepositions do not all show the same behaviour in these constructions which can provide a more thorough understanding of different types of compound prepositions and their internal structure in Maltese.

Abbreviations

1	first person	PFV	perfective
3	third person	PL	plural
DEF	definite	SG	singular
		SUB	suborinator

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Object reduplication in Maltese, Arabic, and Romance: Two contacts, one, or none?
David Wilmsen

Maltese exhibits what has been called "object reduplication," whereby the direct object first appears as a pronominal clitic affixed to the verb before being named directly (1a), when it is preceded by dative *lil*, incorporating the preposition *l-* with what must be an erstwhile definite article *il*. More commonly is the nominal object marked with the dative preposition without reduplication (1b):

(1)   Maltese
     a.   *Raj-t-**u***   *lil*   *żewġ-i*
         see.PVF-1.SG-**PRO.MSG**   DOM   husband-PRO.1SG
         'I saw my husband'
     b.   *Raj-t*   *lil*   *Ġorġ*
         see.PVF-1.SG   DOM   name
         'I saw George'

This tends to apply to definite high-animacy direct objects, whereas, indefinite low-animacy objects do not usually accept *lil*:

(2)   Maltese
     rajt   *karozza*   *oħra*
     see.PVF-1.SG   automobile   PRO
     'I saw another automobile'

Named as such "differential object marking," the phenomenon also occurs in Levantine Arabic, which tends to mark objects in the same manner as Maltese (3a), although doing so is not obligatory (3b):

(3)   Lebanese Arabic
     a   *ʕali*   *šāf-**ā***   *la-l-binit*
         name   see.PVF.3MSG-**PRO.FSG**   DAT-DET-girl
         'Ali saw the girl'
     b   *ʕali*   *šāf*   *il-binit*
         name   see.PVF.3MSG DET-girl
         'Ali saw the girl'

Romance languages, notably Spanish and Sicilian also exhibit DOM, prompting speculation that the Maltese arises from contact with Romance. An alternative is that DOM entered Levantine Arabic, thence to Maltese, through contact with late Aramaic, which marks direct and indirect objects with *l-*. Another is that DOM arose independently in all Arabic varieties in which it occurs, including Maltese, meaning that Arabic DOM is not a contact phenomenon at all.

Aramaic, Andalusi Arabic, and Old Spanish, exhibit DOM without object reduplication. Meanwhile, Levantine Arabic, Maltese, and Sicilian exhibit both, but only Levantine Arabic and Maltese affix the clitic pronoun to the verb. This indicates that DOM with object reduplication did not enter Maltese through contact with Sicilian but is likely one of a bundle of Levantine features in Maltese.

Jacqueline Zammit

Could the Future teaching and learning of Maltese Language include Virtual Reality?

Abstract

Although virtual reality (VR) technology is growing in popularity, little is known about the potential use of VR tools in the teaching of Maltese. This study investigated this topic using a mixed research approach. Data on the use of VR in language learning environments was collected from 25 teachers using a qualitative approach through a focus group technique. Twenty-five teachers participated in an online survey that was conducted as part of the quantitative phase of the research to obtain information on the potential effectiveness of VR technology in the context of teaching Maltese as a second language (ML2). The results of the study provided insight on the efficacy of employing VR in teaching ML2. On the basis of the findings of the NVivo thematic analysis and the quantitative information collected from the survey, the study provides a thorough overview of the benefits and drawbacks of VR for international students learning ML2. Teachers praise VR for its effectiveness in engaging students in an immersive environment and enhancing the learning context with essential entertainment aspects. According to this study, VR tools are not currently being used to assist students in learning ML2, and there is still a lot of confusion around the rules for applying these tools in ML2 settings. The most significant components of this ambiguity are critically discussed in this presentation, along with various VR-related difficulties such as high costs, bulky headsets, and technical problems.

Keywords: *virtual reality (VR), educational VR technology, second language acquisition, VR apps for language learning, an immersive VR environment, learning Maltese as a second language.*