

Chapter 13

Maltese

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This chapter presents an overview of the most prominent contact-induced developments in the history of Maltese, a language which is genetically a variety of Arabic, but which has undergone significant changes, largely as a result of lengthy contact with Sicilian, Italian, and English. We first address the precise affiliation of Maltese and the nature of the historical and ongoing contact situations, before detailing relevant developments in the realms of phonology, inflectional and derivational morphology, syntax, and lexicon.

1 Maltese and Arabic

From a historical point of view, Maltese is a variety of spoken Arabic, albeit one that has undergone far-reaching changes as a result of sustained and intensive contact with Italo-Romance varieties, and more recently also with English. This is a fact about which there is no controversy among contemporary linguists. It should be noted, however, that a mix of social, cultural, historical, political, and indeed linguistic factors has led to a situation in which many Maltese people today view their language as Semitic, but not a type of Arabic. Since we are concerned here only with the historical perspective, we will not dwell on the vexed question of whether or not contemporary Maltese should be classified as an “Arabic dialect”.¹ Suffice it to say that the idea, first popularized by de Soldanis

¹Note that Maltese itself has a number of different dialects, one of which – that of the major towns, and the variety used in media, literature and administration – is referred to as Standard Maltese. Except where specified, this chapter deals exclusively with the standard variety of Maltese.



(1750) and Vassalli (1791), that Maltese is a variety of Phoenician or Punic, has been shown since at least since Gesenius (1810) and de Sacy (1829) to be entirely without merit.

Since the Phoenicians and then the Carthaginians occupied Malta for much of the first millennium BCE, followed by Roman and Byzantine occupation for much of the first millennium CE, it would seem *prima facie* likely that elements of the languages of these occupiers would survive into contemporary Maltese. Brincat (1995) shows, however, based on the account of al-Ḥimyarī, that Malta was to all intents and purposes uninhabited in the period between its conquest by the Arabs in 870 CE and the first concerted efforts at colonization by Arabic-speaking Muslims in 1048–1049 CE. It is for this reason that the Semitic component of Maltese phonology, morphology, syntax and lexicon is Arabic and Arabic only (see also Grech 1961).

As for the provenance of the Arabic component of contemporary Maltese, there is no doubt that the most important source is a variety of Maghrebi (Western) Arabic. This is evident from grammatical features such as: the pan-Maghrebi extension to the singular of the first-person *n-* prefix of the imperfect verbal paradigm (see Table 1); the loss of a gender distinction in the second person singular, in pronouns and both perfect and imperfect verbs, as in urban Tunisian Arabic varieties (Gibson 2011); variable rearticulation of the definite article on postnominal adjectives in definite noun phrases, as in (1) (cf. Gatt 2018), found also in Casablanca Arabic (Harrell 2004: 205); and the *-il* suffix of the numerals ‘eleven’ to ‘nineteen’ in determiner use, as in (2), which also occurs in the Arabic dialects of Casablanca (Caubet 2011) and Tlemcen (Taine-Cheikh 2011).²

Table 1: First-person imperfect ‘write’ in Eastern and Western Arabic

	Eastern		Western	
	Classical Arabic	Baghdad Arabic	Casablanca Arabic	Maltese
Singular	<i>ʔaktub</i>	<i>aktib</i>	<i>nəktəb</i>	<i>nikteb</i>
Plural	<i>naktub</i>	<i>niktib</i>	<i>nkətbu</i>	<i>niktbu</i>

(1) il-kelb (l-)abjad
 DEF-dog (DEF)-white
 ‘the white dog’

(2) it-tnax-il appostlu
 DEF-twelve-DEF apostle
 ‘the twelve apostles’

²Unless otherwise specified, all numbered examples present data from Maltese. All Maltese examples in this chapter are rendered using Standard Maltese orthography.

Narrowing matters down further, Zammit's (2014) study of lexicon shared between Maltese and the Arabic dialect of Sfax offers yet more support (see also Vanhove 1998) for the geographically unsurprising conclusion that Maltese is more closely related to the traditional (so-called pre-Hilalian; see Benkato, this volume) urban Tunisian dialects than to any other extant Arabic variety. This is not to suggest, however, that the Arabic component of Maltese resembles these dialects in all respects. Borg (1996) lists a number of areas in which Maltese accords more closely with Levantine Arabic dialects than with those of the Maghreb. But the social and political history of Malta after the end of direct Arab rule in 1127 CE is such that most or all of these similarities should be understood as the failure of Maltese to participate in innovations that later spread through the mainland Maghrebi varieties, and not as evidence of influence of Eastern Arabic on the formation of Maltese.

2 Contact with Italo-Romance and English

2.1 Italo-Romance

A comprehensive history of immigration to Malta in the medieval period is yet to be written (if indeed such a history is possible at all, given the apparently scarce documentary evidence). It is therefore impossible to give precise details of the sociolinguistic conditions under which the Arabic variety spoken in Malta came into contact with varieties of Italo-Romance in the course of the second millennium. We can, however, sketch the broad outlines of this process, and make some reasonable inferences.

The Arabic-speaking settlers who colonized Malta in 1048–1049 CE can be assumed to have come from either Sicily or southern Italy or both (Brincat 1995: 22), but in any case it seems likely that at least some of these came speaking a variety of Sicilian in addition to Arabic. Even after Malta was brought under Norman control in 1127 CE by Roger II of Sicily, and went on to be part of the Kingdom of Sicily, there does not seem to have been a large-scale immigration of non-Arabic speakers to Malta at any point, a fact which is of course consistent with the survival of the Maltese language until today. Unsurprisingly from a geographical and political perspective, what immigration there was appears to have come overwhelmingly from Sicily and southern Italy, with lesser numbers coming also from Spain (Ballou 1893: 134, 289; Blouet 1967: 43–46; Fiorini 1986; Goodwin 2002: 26–32).

Comprising mostly soldiers, craftsmen and churchmen of various types, it would appear that this immigration was disproportionately male. In addition to

families in which the only language spoken was Maltese, there must, therefore, have been significant numbers of families in medieval Malta in which the father spoke only Sicilian natively and the mother spoke only Maltese natively, with communication necessarily involving second-language speech by one or both parents. Children of such families would therefore have been exposed minimally to native and non-native Maltese speech and native Sicilian speech.

From the perspective of Van Coetsem's (1988; 2000) framework for understanding contact-induced change, therefore, it seems highly likely that transfer from Sicilian to Maltese occurred both through imposition under source-language agentivity (by L1 Sicilian speakers) and borrowing under recipient-language agentivity (by L1 Maltese speakers).

There is no doubt that, alongside Sicilian, (Tuscan) Italian had an important place in Maltese life over many centuries, starting at the latest in 1530, when it became the official language of government under the regime of the Knights of Malta. But as Comrie & Spagnol (2016: 316) point out, Italian did not gain a foothold at the expense of Sicilian among bilingual Maltese until the later eighteenth century, and given its social function as a vehicle for government, education and high culture, rather than the native language of a significant proportion of ordinary Maltese, it is reasonable to say that transfer from Italian will have been mediated predominantly by borrowing under recipient-language agentivity.

2.2 English

Starting in 1800, when Malta became a protectorate of the British Empire, English gradually began to supplant Italian as the language of government, education and high culture, being joined in that role by the Maltese language itself only in the last few decades. English is now widely spoken in Malta: according to 2011 census data (National Statistics Office 2014: 149), 94.6% of the population of Malta reported speaking Maltese “well” or “average[ly]”, while 82.1% reported the same for English. English is a native language for only a very small percentage of Maltese residents, however: Sciriha & Vassallo (2006) put the figure at 2%. As with Italian, then, transfer from English to Maltese will overwhelmingly have occurred through borrowing under recipient-language agentivity. With the Maltese variety of English, the reverse is true of course: here the transfer from English to Maltese will have been almost exclusively imposition under source-language agentivity by native speakers of Maltese, resulting in such hallmark features of Maltese English as word-final obstruent devoicing (cf. §3.1.1.2 below), and the use of *but* in clause-final position (Lucas 2015: 527).

Given that transfer from English was and is restricted to borrowing in Van Coetsem's sense, while the more extensive and long-lasting contact with Sicilian will have involved both borrowing and imposition, it is not surprising that a picture will emerge in the following sections whereby Italo-Romance dominates as a source of contact-induced changes across all linguistic domains, with English playing a much more modest role, largely restricted to lexicon and associated inflectional morphology.

3 Contact-induced changes

3.1 Phonology

3.1.1 Consonants

3.1.1.1 Additions to the native phonemic inventory

One of the most salient – and uncontroversially contact-induced – innovations in Maltese phonology is the addition of at least five (arguably seven) consonant phonemes.³ This came about through the transfer (presumably borrowing) of Italo-Romance and English lexical items without subsequent adaptation to the original native inventory (compare, e.g., Maltese *pulizija* with unadapted initial [p] and Cairene Arabic *bulīs* 'police'). The five uncontroversial additions are /p/, /v/, /ts/, /tʃ/ and /g/ (orthographically: ⟨p⟩, ⟨v⟩, ⟨z⟩, ⟨ċ⟩ and ⟨g⟩; see Table 2), as in *evaporazzjoni* 'evaporation' and *granċ* 'crab'. One can also make a case for an innovative borrowed phoneme /dʒ/. There are no minimal pairs demonstrating a phonemic distinction between /dʒ/ and /ts/ (and both are represented by ⟨z⟩ in the orthography), but Borg & Azzopardi-Alexander (1997: 301) point out that /dʒ/ occurs in environments not requiring a voiced obstruent, as in *gazzetta* /gɐ'dʒ:ɛ:tɐ/ 'newspaper'. More marginal is /z/, which Mifsud (2011) and Borg & Azzopardi-Alexander (1997: 303) point out can be found in recent loanwords from English, such as *televixin* 'television' and *bex* 'beige', though whether all speakers voice the ⟨x⟩ in these items is uncertain.

Proto-Semitic *g, represented as ⟨ġ⟩ in Arabic script, and usually rendered [dʒ] when Standard Arabic is spoken, is reflected as /dʒ/ (orthographic ⟨ġ⟩) in Maltese. This appears to be a retention of the original Maghrebi realization of this phoneme, other Maghrebi varieties having in general deaffricated it to /z/ (cf. Heath 2002: 136). Unlike some other Maghrebi varieties, however, the Maltese reflex of ⟨ġ⟩ does not become /g/ before sibilants (cp. Maltese *ġewż* vs. Casablanca

³For useful overviews of the phonology of Maltese, see Borg (1997) and Cohen (1966; 1970).

Table 2: Inventory of consonants. Symbols are Maltese orthography.

	<i>Labial</i>	<i>Alveolar</i>	<i>Postalveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Laryngeal</i>
Plosive	p b	t d			k g	q
Affricate		z	č g̣			
Fricative	f v	s ž	x			ħ
Nasal	m	n				
Trill		r				
Lateral		l				
Approximant	w			j		

gūz ‘walnuts’).⁴ Similarly, Proto-Semitic *q (on which more below), is never reflected as /g/ (orthographic ⟨g⟩) in Maltese (cf. Vanhove 1998: 99), meaning that the presence of /g/ in the Maltese phonemic inventory is certainly due to its occurrence in numerous lexical borrowings. The majority of these are from Italo-Romance (e.g. *gwerra* ‘war’), but some are from Berber (e.g. *gendus* ‘calf’ < Berber *agenduz*; Naït-Zerrad 2002: 827), suggesting that /g/ as an independent phoneme has been present in Maltese since the earliest days of Arabic speech on the Maltese islands.⁵

3.1.1.2 Losses, mergers and shifts

Alongside these additions, the Maltese consonant phoneme inventory has also witnessed a number of losses and mergers. Clearly it is not possible to establish with certainty whether or not these changes were due to contact, but various considerations make it reasonable to assume that contact at least accelerated these changes. For example, the inherited emphatic (pharyngealized/uvularized) consonants – *ṣ, *ṭ and *ḏ – have all merged with their non-emphatic counterparts,

⁴An exception is *gżira* ‘island’ < Arabic *ġazīra*, perhaps to be explained by direct contiguity with the sibilant.

⁵There are also some sporadic examples of /g/ < *k in Arabic roots, e.g. *gideb* ‘to lie’. See Cohen (1966: 14–15) for further details.

as in *šhāb* /šhē:b/ ‘clouds’ < *saḥāb*, and also ‘companions’ < *ʔaṣḥāb*. Note in this connection that among other Arabic varieties, it is only a handful of those most strongly affected by contact (such as pidgins and creoles, as well as Cypriot Maronite Arabic; see Avram, this volume; Walter, this volume) that have merged the emphatic consonants in this way. This suggests that non-native acquisition of Maltese by Italo-Romance speakers precipitated this change (i.e. that it involves source-language agentivity in Van Coetsem’s 1988; 2000 terms).

In addition to the loss of the emphatic consonants, Maltese has undergone significant losses and mergers among the velar and laryngeal phonemes.

Perhaps most saliently, an earlier version of what is today Standard Maltese merged and then lost the voiced uvular/velar fricative *ʁ and the voiced pharyngeal fricative *ʕ. In Maltese’s rather etymologizing orthography, these historic phonemes are given the digraph symbol ⟨gh⟩. In general, this symbol either has no phonetic correlate, as in *ghajn* /ɛm/ ‘eye, spring’ and *ghonq* /ɔnʔ/ ‘neck’, or otherwise corresponds to the lengthening of a vowel in morphological patterns where the vowel would ordinarily be short, as in the stem I CaCeC verb *ghamel* /ɛ:mɛl/ ‘to do’. That the two original phonemes first merged and were then lost in Standard Maltese can be inferred from the behaviour of ⟨gh⟩ + ⟨h⟩ sequences. These are realised as /h/ in roots where ⟨gh⟩ reflects *ʕ (e.g. *semagh-ha* /sɛ'məh:v/ hear.PRF.3SG.M-3SG.F, ‘he heard it’ < *samaʕ* ‘to hear’), where other Arabic varieties behave similarly (cf. Woidich 2006: 18), but also, unlike other Arabic varieties, in roots where ⟨gh⟩ reflects *ʁ (e.g. *ferragh-ha* /fɛr'rəh:v/ pour.PRF.3SG.M-3SG.F, ‘he poured it out’ < *farray* ‘to empty’). This merger and subsequent loss did not take place in all varieties of Maltese. To this day, there are apparently speakers of dialectal Maltese whose speech preserves both *ʁ as a velar fricative, and *ʕ as a pharyngeal fricative (Klimiuk 2018). The fact that the merger and loss of these two phonemes is more advanced in the standard language of the major conurbations and less so in the dialects of more isolated villages suggests that contact-induced change played an important role here, with non-native speakers of Maltese presumably being the principal agents of change.

Arguably the most interesting set of mergers and losses concerns the voiceless fricatives, which represent a case of considerable phonemic reorganization despite relatively little change at the phonetic level. The phonemic changes in this domain are as follows. First, *h, while maintained in the orthography (as ⟨h⟩), has merged with /h/ in codas (e.g. *ikrah* /ik'rəh/ ‘ugly’) and sporadically in onsets (e.g. *nahaq* /nəhɛʔ/ < *nahaq* ‘to bray (of donkeys)’), and is otherwise lost altogether (e.g. *hemm* /ɛm:/ ‘there’). The Maltese phoneme /h/ thus represents the continuation of the voiceless pharyngeal fricative *h, as well as the partial merger of *h. Moreover, original *ħ, the voiceless uvular/velar fricative, has also merged with

/ħ/, as in *ħajt* ‘thread’ < *ħayt*, and also ‘wall’ < *ħāyiṭ*. Strikingly, however, the single Maltese phoneme /ħ/ exhibits considerable inter- and intra-speaker variation in its precise realization, such that glottal, pharyngeal, and velar/uvular voiceless fricative realizations may commonly be heard (Borg & Azzopardi-Alexander 1997: 301), and it is in this sense there has been little phonetic change despite the considerable phonological reorganization.

Like the loss of the emphatic consonants, the loss or merger of *h (as well as one or more of the pharyngeal and velar/uvular fricatives) is restricted to a handful of Arabic varieties that have been very strongly affected by contact (see, e.g., Walter, this volume). As such, these changes too are suggestive of imposition by non-native speakers lacking these sounds in their native phonemic inventory (as was the case for speakers of the Romance varieties with which Maltese has had the most intense contact, cf. Loporcaro 2011: 141–142). On the other hand, the preservation of the glottal and pharyngeal fricatives as allophones of /ħ/ complicates this picture, such that the role of contact in bringing about these particular changes must remain uncertain for now.

It is similarly hard to diagnose the causes of the shift of *q to glottal stop (nevertheless written as <q> in Maltese orthography) and the stopping of the interdental fricatives *θ and *ð. In both cases, however, we can at least rule out with confidence any suggestion that these are ancient changes that predate the arrival of Arabic in Malta, or are historically connected to similar realizations in the Arabic dialects of urban centres in the Maghreb, Egypt, and the Levant. Written records of earlier Maltese clearly show that a dorsal realization of *q, as well as the interdental fricative realization of *θ and *ð, survived until at least the late eighteenth century (Avram 2012; 2014). It is at least plausible, therefore, that contact with Italo-Romance played a role in these changes too, but firm evidence on this point is so far lacking.

Finally, a well-known feature of contemporary Maltese (and Maltese English) phonology is the devoicing of word-final obstruents, as in *ħadd* [ħet:] ‘nobody’. Avram (2017) shows that devoicing gradually diffused across the Maltese lexicon over the course of about two centuries from the late sixteenth century onwards, and he makes a strong case that the initial trigger for this development was imposition by native speakers of Sicilian and Italian, since word-final obstruent devoicing has been shown by various studies (e.g. Flege et al. 1995) to be a frequent feature of the L2 speech of L1 speakers of Romance languages.

3.1.2 Vowels

Maltese has a much richer vowel phoneme inventory than typical Maghrebi Arabic dialects, with, among the monophthongs, five short-vowel qualities /ɪ, ε, ɐ, ɔ, ʊ/ (orthographic ⟨i, e, a, o, u⟩), and six long-vowel qualities /i:, ɪ:, ε:, ɐ:, ɔ:, u:/ (orthographic ⟨i, ie, e, a, o, u⟩), as well as seven distinct diphthongs (with a number of different orthographies – see Borg & Azzopardi-Alexander 1997: 299 for details): /ɪʊ, εɪ, εʊ, ɐɪ, ɐʊ, ɔɪ, ɔʊ/. Compare this with the three-vowel-quality system of Tunis Arabic, which also lacks diphthongs (Gibson 2011).

Since the Italo-Romance languages have vowel systems of a similar richness to Maltese, one might assume that this proliferation of vowel phonemes is a straightforward case of transfer. This is, in general, not the case, however. The majority of new phonemic distinctions are at least partially the result of the loss of emphatic consonants and of *ʔ,⁶ which led to the phonemicization of vowel qualities that were previously merely allophonic. Note also that the innovative lax close front long vowel /ɪ:/ is apparently an entirely internal development – the outcome of an extreme raising of the front allophone of *ā (so-called *imāla*), as in *ktieb* /kɪɪ:b/ ‘book’ < *kitāb*.

Following Krier (1976: 21–22), we can nevertheless point to three innovations in this domain which do seem to be the direct result of lexical borrowing from Italo-Romance.

Krier (1976: 21) points out first of all that, of the five short vowels, only four /ɪ, ε, ɐ, ɔ/ appear in all positions in Arabic-derived lexicon. In contrast, /ʊ/ occurs only in final position in unstressed syllables in this portion of the lexicon, with the single exception of *kull* ‘all’. Were it not for the (extensive) Italo-Romance component of the Maltese lexicon, therefore, we can say that the distinction between [ɔ] and [ʊ] would remain allophonic, as it is in Tunis Arabic. As it is, the two sounds should probably be considered phonemically distinct in Maltese. Although minimal pairs are hard to find, possible examples include *punt* ‘point’ vs. *pont* ‘bridge’ and *lotto* ‘lottery’ vs. *luttu* ‘mourning’.⁷

Among the long vowels, the presence of /ε:/ and /ɔ:/ phonemes in Maltese is also largely attributable to Italo-Romance loans containing these sounds. Although /ē/ and /ō/ do occur in certain Tunisian Arabic varieties (Gibson 2011; Herin & Zammit 2017), these are the result of historical monophthongization of the original *ay and *aw diphthongs. The Maltese reflexes of these sounds remain diphthongs, as in *sejf* /sɛɪf/ ‘sword’ and *lewn* /lɛʊn/ ‘colour’. Other than in cases of compensatory lengthening in items where the consonants represented by ⟨gh⟩

⁶These latter changes are themselves, however, arguably contact-induced – see §3.1.1.2.

⁷Our thanks to Michael Spagnol for suggesting these examples.

and ⟨h⟩ have been lost (see §3.1.1.2), /ɛ:/ and /ɔ:/ only occur in the non-Arabic component of the Maltese lexicon, as in *żero* /'zɛ:rɔ/ 'zero' and *froġa* /'frɔ:ɖɤ/ 'omelette'.

To these three contact-induced monophthongal innovations we can add one new contact-induced diphthong: /ɔɪ/. Mifsud (2011) points out that this occurs only in non-Arabic lexical items (e.g. *vojt* /vɔɪt/ 'empty space') in Standard Maltese.

In summary, then, the majority of innovative vowel phonemes in Maltese are not the direct result of transfer, but the three new monophthongal phonemes whose emergence is (at least partially) contact-induced, combine to create a near-symmetrical system in which all five short vowel phonemes have a long counterpart.

3.1.3 Intonation

Despite pioneering work by Alexandra Vella (e.g. Vella 1994; 2003; 2009; Grice et al. 2019), the study of intonation in Maltese, as in most non-Indo-European languages, remains in its infancy (cf. Hellmuth, this volume). Impressionistically speaking, the tunes that can be heard in Maltese (and Maltese English) speech are highly distinctive, and often quite unlike those of the Mediterranean Arabic dialects. Several studies have demonstrated that intonation patterns are highly susceptible to transfer in language contact situations, especially through imposition by source-language-dominant speakers (see the studies of Spanish intonation by O'Rourke 2005; Gabriel & Kireva 2014). Interestingly, however, this appears to be less true for the tunes associated with polar interrogatives, at least in the varieties of Spanish described by the aforementioned authors, presumably because of the importance of intonation in establishing interrogative force in the absence of syntactic cues in this language. What data we have on this issue for Maltese fits rather neatly into this larger picture. According to Vella (2003), the intonational patterns of Maltese late-focus declaratives on the one hand, and wh-interrogatives on the other, pattern with Palermo Sicilian and Tuscan Italian respectively, while that of Maltese polar interrogatives more closely resembles counterparts in Arabic dialects.

It seems safe to assume that imposition by native speakers of Italo-Romance varieties is the primary cause of the similarities in intonation between Maltese and Italo-Romance, but borrowing by Maltese-dominant bilinguals should not be ruled out as an additional factor.

3.2 Morphology

3.2.1 Nouns and adjectives

3.2.1.1 Inflection

It has been shown (e.g. Gardani 2012; Seifart 2017) that plural affixes are, with case affixes, the most widely transferred inflectional morphemes. Maltese conforms neatly to the general crosslinguistic picture: it has acquired plural morphemes from Sicilian and English and little in the way of other inflectional morphology (but see §3.2.2).⁸

In addition to a rich array of stem-altering (so-called “broken”) plural patterns, most of which also serve as the plurals of at least some items of Italo-Romance or, more rarely, English origin (see Spagnol 2011 for details), Maltese has six plural suffixes: *-in*, *-a*, *-iet*, *-ijiet*, *-i*, and *-s*.⁹ Of these, *-in*, and *-iet* are straightforward retentions from Arabic (nevertheless extended to numerous non-Arabic items), *-i* and *-s* are straightforward cases of indirect affix borrowing (in the sense of Seifart 2015), and *-a*, and *-ijiet* arguably involve a subtle interplay of internal and externally-caused developments.

The most recently borrowed plural suffix is the English-derived *-s*. This occurs exclusively with bases borrowed from English, and may be considered only partially integrated into monolingual Maltese (to the extent that such a thing exists; see §2.2), in that it often alternates optionally with *-ijiet* in items such as *kejk* ‘cake’ (pl. *kejkijiet* ~ *kejks*). There are, however, a number of reasonably frequent items (e.g. *friżer* ‘freezer’) which appear never to take a plural suffix other than *-s*.

The Sicilian-derived suffix *-i* can mark the plural of a far higher proportion of Maltese nouns than can *-s*, and is demonstrably better integrated into the Maltese inflectional system. In addition to marking the plural of Sicilian-derived nouns which also take *-i*, e.g. *xkupa* ‘broom’ < Sicilian *scupa* (pl. *scupi*), *ffakk* ‘weak’ < Sicilian *fiaccu* (pl. *fiacchi*), it has also been extended to: Italian-derived nouns, including those with a plural in *-e* in Italian, e.g. *statwa* ‘statue’ < Italian *statua* (pl. *statue*); nouns from other Romance languages, e.g. *pitrava* ‘beetroot’ < French *betterave* with \emptyset -plural (orthographic *-s*); English-derived nouns, e.g. *jard* ‘yard (unit of distance)’; and even a few Arabic-derived nouns, e.g. *saġġ* ‘layer’ < *saġġ* ‘row’, *samm* ‘very hard’ < *ʔaṣamm* ‘deaf, hard’.

⁸One should note also, however, the appearance in a couple of items of a singulative suffix *-u*, apparently borrowed from Sicilian. Borg (1994: 57) cites *wizz-u* ‘geese-SING’, *dud-u* ‘worms-SING’, and *ful-u* ‘beans-SING’.

⁹There are also one or two examples of zero plurals, e.g. *martri* ‘martyr(s)’.

Arabic and Sicilian coincidentally have an identical less frequently used plural (or collective) suffix *-a*, as in Arabic *mārra* ‘passers-by’ (singular *mārr*) and Sicilian *libbra* ‘books’ (singular *libbru*). A plural suffix of this form also occurs in Maltese, with nouns of both Arabic and Italo-Romance origin (e.g. *kittieba* ‘writers’ < Arabic *kattāb*; *nutara* ‘notaries’ < Italian *notaro*). Evidence that this is perceived and treated as a single morpheme rather than two homophonous items comes from the fact that the restriction of this suffix to groups of people in Arabic applies also to the Italo-Romance part of the Maltese lexicon (Mifsud 2011).

A curious feature of Maltese plural morphology from a comparative Arabic perspective is the very frequent suffix *-ijiet* (*-jiet* after certain vowel-final stems), as in *postijiet* ‘places’ (singular *post*) and *ommijiet* ‘mothers’ (singular *omm*). While clearly based on the Arabic-derived suffix *-iet* (< Arabic *-āt*, with characteristic Maltese *imāla*), the provenance of the initial *-ij-* is not obvious. Mifsud (2011) plausibly suggests that *-ijiet* as a whole is “derived from the plural of verbal nouns with a weak final radical, like *tigrijiet* ‘races’, *tiswijiet* ‘repairs’”, but Geary (2017) makes a strong case that the large influx into Maltese of Italo-Romance nouns whose singulars ended in *-i* (e.g. *affari* ‘affair, matter’ < Sicilian *affari* or Italian *affare*) was instrumental in the emergence of this morpheme. On this account Maltese speakers originally pluralized such words with *-iet*, with glide-insertion an automatic phonological consequence of the juncture of a vowel-final stem and a vowel-initial suffix. Later, according to Geary, the whole string *-ijiet* was reanalysed as constituting the marker of plurality, and this new plural suffix was extended to consonant-final stems, including Arabic-derived items of basic vocabulary such as *omm* ‘mother’ and *art* ‘land’.¹⁰

3.2.1.2 Derivation

Maltese displays a rich array of derivational suffixes borrowed (presumably initially as part of polymorphemic lexical items) from Italo-Romance. A definitive list of these has not been provided to date, but Saade (2019) offers a detailed typology of such items, of which we present a simplified version here, drawing also

¹⁰Geary’s contact-induced scenario for the emergence of this suffix may not be the whole story, however. Evidence on this point comes from Arabic loanwords in Siwa Berber. Souag (2013: 74) lists a number of examples of Arabic-origin nouns whose plural is formed by adding a suffix *-iyyat* (e.g. *shilfa* ‘turtle’, pl. *shilfiyyat*), despite the fact that both Classical Arabic and present-day Egyptian Arabic lack plurals of this type. Siwa Berber must therefore have borrowed these items and their pluralization strategy from some early form of (eastern) Maghrebi Arabic, suggesting that the presence in Maltese of the *-ijiet* suffix is, at least to some extent, an Arabic-internal development that predates the large-scale borrowing of Italo-Romance nouns into Maltese.

on examples from Brincat & Mifsud (2015), and focusing just on the nominal, adjectival and adverbial domains (see §3.2.2.2 for borrowed participial morphology).

First of all, there are at least twenty suffixes, such as the nominalizer *-zzjoni*, which, though relatively frequent, only occur in items clearly borrowed wholesale from Italo-Romance (e.g. *dikjarazzjoni* ‘declaration’ < Italian *dichiarazione*) or in coinages which, in a process that is relatively common in Maltese, represent borrowings from English that are adapted to fit the phonology and morphology of Romance-influenced Maltese, as in *esplojtazzjoni* ‘exploitation’ (cf. Gatt & Fabri 2018). Given this restriction, there must be some doubt as to whether one can regard the suffixes themselves as borrowed, or only the polymorphemic items in which they occur.

Secondly, there are a number of borrowed suffixes which are sufficiently well integrated that they can attach to Arabic-derived bases. Examples include:

-ata, e.g. *xemxata* ‘sunstroke’ (*xemx* ‘sun’)

-ezza, e.g. *mqarebezza* ‘naughtiness’ (*mqareb* ‘naughty’)

-un (< Sicilian *-uni*, Italian *-one*), e.g. *ħmarun* ‘great fool’ (*ħmar* ‘donkey’)

Finally, there is at least one borrowed suffix: *-tura*, which forms single-instance verbal nouns. The integration of this morpheme can be seen from the fact that it attaches to productively to English bases, as in *čekkjatura* ‘an instance of checking’ or *weldjatura* ‘an instance of welding’.

3.2.2 Verbs

3.2.2.1 Loaned verbs

Maltese has borrowed a large number of verbs from Sicilian and Italian, and more recently a smaller number from English. The chief interest in these borrowings lies in the way in which they have been integrated into the Maltese inflectional and derivational verbal paradigms. An in-depth study of this phenomenon was provided by Mifsud (1995), who distinguished the following four types of loaned verbs:

Type A: Full integration into Semitic Maltese sound verbs

Type B: Full integration into Semitic Maltese weak-final verbs

Type C: Undigested Romance stems with a weak-final conjugation

Type D: Undigested English stems

Mifsud (1995: 58) points out that most (perhaps all) Type A verbs are so-called “second generation” loans, whereby a nominal or adjectival form has been borrowed, a root extracted from it, and a verb formed on this root, as in *pitter* ‘to paint’ – a denominal derivation from *pittur* ‘painter’, borrowed from Sicilian *pitturi* (and supported by Italian *pittore*). Such items do not, therefore, represent genuine cases of transfer of verbs, and are reminiscent of similar coinages in other Arabic varieties (e.g. *fabrak* ‘to fabricate’). In Arabic as in Maltese, such items are overwhelmingly restricted to the denominal verbal stems II and V of trilateral roots and I and II of quadrilateral roots (CVCCVC and tCVCCVC).

In contrast to Type A, Mifsud’s Types B and C are genuine cases of loaned verbs. Mifsud (1995: 110–116) shows that the imperative (rather than the homophonous 3SG present, or any other verb forms) was the most likely base form of the Romance models on which the Maltese loaned verbs were created.¹¹ In both Italian and Sicilian all verbs in the imperative end in either *-i* or *-a*. As it happens, Maltese weak-final verbs (in which the final radical element is a vowel rather than a consonant) also all end in either /ɪ/ or /ɛ/ in the imperfect and imperative singular, depending on which of the two weak-final conjugation classes they fall into. This coincidence resulted in borrowed Romance verbs being integrated into one of these two weak-final classes, as in *kanta* ‘he sang’, *jkanta* ‘he sings’ (< Sicilian/Italian imperative *canta*); and *serva* ‘he served’, *jservi* ‘he serves’ (< Sicilian/Italian imperative *servi*).

The difference between verbs of Types B and C is that the former are analysed as having root-and-pattern morphology, with a trilateral or quadrilateral root, whereas Type C are borrowed as a concatenative stem without a root. This can be seen from the fact that Type B verbs can give rise to new verbs with the same root in other verbal stems, as in *kompla* ‘to continue’, *tkompla* ‘to be continued’ (< Sicilian *cumpliri* ‘to finish’), whereas Type C verbs cannot.

Another difference between Types B and C is that no Type C verb begins with a single (ungeminated) consonant, whereas most Type B verbs do. In fact, apart from certain well-defined exceptions (see Mifsud 1995: 152), all Type C verbs begin with a geminate consonant, as in *ffolla* ‘to crowd’ < Italian *affollare*. What exactly was the combination of historical factors that gave rise to this synchronic state of affairs is a complex matter (see Mifsud 1995: 158–168 for discussion), but the key point to note is that at least some of the instances of initial gemination in Type C verbs are apparently not attributable to phonological properties of the source item (e.g. *pprova* ‘to try’ < Italian *provare*). It seems that speakers of Maltese came to feel that all loan verbs must have an initial geminate consonant, whether or not this was actually true of the item being borrowed.

¹¹This parallels the situation in Arabic-based pidgins and creoles, for which Versteegh (2014) shows that verbs generally appear to derive from imperatives in the lexifier varieties.

This state of affairs manifests itself rather spectacularly in more recent borrowings from English (Type D verbs), in which initial consonants are duly geminated (despite this never being the case in the English source items), but which also fall into the conjugation class of weak-final verbs, as in *ddawnlowdja* ‘to download’. What underlies this treatment of loans from English seems to be a type of reanalysis, which we can sketch as follows. In the initial stage, verbs without roots (not necessarily identifiable to speakers as loans from Italo-Romance) are analysed as falling into the weak-final conjugation class because they have a stem-final vowel. But since all verbs without roots (at this pre-English stage) have a stem-final vowel, it is possible to view the lack of a root, not the presence of a stem-final vowel, as the reason that loan verbs obligatorily fall into the weak-final conjugation class; and it seems that speakers indeed made this reanalysis. In a parallel development, initial consonant gemination also came to be seen an obligatory feature of the class of verbs lacking a root. As a result of these developments, when a verb is borrowed from English, because it lacks a root its initial consonant is geminated and it is conjugated as a weak-final verb, regardless of whether it has a stem-final vowel.¹²

3.2.2.2 Participles

Unsurprisingly, one of the additional ways in which Type A verbs differ from the remaining three classes of loaned verbs is the formation of passive participles: in Type A verbs, passive participles are formed in accordance with the Semitic pattern for the respective derived stem, e.g. *pejjep* ‘to smoke’ (stem II, from Italian *pipa* ‘pipe’) produces *mpejjep* ‘smoked’ (Mifsud 1995: 70). In contrast, some Type B verbs allow for the formation of a passive participle using Romance suffixes (Mifsud 1995: 127–133), and this is the sole option for Type C and even Type D verbs: for Type C verbs, the choice of the actual suffix depends on the original form of the verb and, in some cases, the path of transfer (see below). For Type D verbs borrowed from English, the suffix *-at* is the only productive way to form a passive participle (e.g. *inxurjat* ‘insured’) with *spellut* ‘spelled’ as the only exception (Mifsud 1995: 248).

And finally, there are two distinct classes of Type B and C verbs which can each derive two passive participles. In the first class, one participle is derived from the weak (regular) form root and the other derived from the strong one, e.g.

¹²In addition, virtually all Type D verbs insert a palatal glide between the borrowed stem and the added weak-final vowel, as in *pparkja* ‘to park’. Similarly to the initial gemination and weak-final inflection of Type D verbs, this glide insertion must be the result of analogical extension from numerous glide-final borrowed Romance verbs, e.g. *rdoppja* ‘to double’ < Italian *raddoppiare*. See Mifsud (1995: 225–236) for a detailed discussion.

konfondut ‘confused’ vs. *konfuż* (Mifsud 1995: 134). In the second class, one participle is derived using the Sicilian suffix *-ut*, the other using the Italian-derived suffix *-it*, e.g. *preferut* ‘preferred’ vs. *preferit* (Mifsud 1995: 230). The reason for these doublets is largely sociolinguistic: the variability of the first class echoes a similar situation in Italian dialects (Mifsud 1995: 134); that of the second class reflects a situation whereby the loaned verb effectively has two sources, spoken Sicilian and Standard (Tuscan) Italian.

3.3 Syntax

3.3.1 Phrase syntax

3.3.1.1 Word order

The expansion of Maltese lexicon with items borrowed from Sicilian and Italian had a profound effect on the syntax of Maltese. The primary example of this is word order within the noun phrase, involving the order of adjectives and their heads. In Arabic, adjectives (with the exception of comparatives, superlatives and a number of specific cases) follow their heads. This is largely true of Italian adjectives as well, with the exception of a small subclass some grammars term “specificational adjectives” (e.g. Maiden & Robustelli 2007: 55–56), such as *stesso* ‘same’ and *certo* ‘certain’, which precede their head. Such adjectives borrowed into Maltese retained their syntactic properties, as with the pre-nominal *ċertu* (< Sicilian *certu*) in (3).

- (3) [BCv3: it-torca.8685]
Kien bniedem ta’ ċerta personalità.
be.PRF.3SG.M person GEN certain.F personality
‘He was a person with a certain personality.’

In Italian, specificational adjectives to a large extent overlap with a class of adjectives that perform double duty as quantifiers (or perhaps determiners) and vary their position according to their respective roles: Adj–N for quantifiers, N–Adj for adjectives. One could argue that it is in the former function that they were borrowed into Maltese and thus should be considered quantifiers or determiners rather than adjectives, especially in light of the fact that they are (for the most part) in complementary distribution with the definite article, as determiners and quantifiers are. Determiners and quantifiers in Maltese precede their heads (as with the definite article *il-*, *kull* ‘all’, *xi* ‘some’ etc.).

There are three arguments against such an account: first of all, borrowed pre-nominal specificational adjectives actually fall into two classes, where members

of the first, such as *ċertu* ‘certain’, *diversi* ‘diverse’ (< Italian *diverso*) or *varju* ‘various’ (< Sicilian *varju*), do not (for the most part) allow the definite article. In contrast, words in the second class such as *stess* ‘same’ (< Italian *stesso*) or *uniku* ‘unique’ (< Sicilian *uniku*) predominantly co-occur with the definite article when pre-nominal. The same, incidentally, is true of the etymologically Arabic pre-nominal quantifier *ebda* ‘no, none’.

Secondly, there are morphological considerations: pre-nominal specificational adjectives of both types mark gender and/or number (*varju* for the first, *uniku* for the second) like Maltese adjectives do; Maltese determiners and quantifiers do not inflect for either gender or number.¹³

The final argument against considering borrowed pre-nominal specificational adjectives as being borrowed into the slot for determiners involves ordinal numerals. In Italian, these also fall into the subclass of prenominal specificational adjectives (Maiden & Robustelli 2007: 55) and thus precede their head. The same is invariably true of Maltese ordinal numerals, as with *ewwel* in (4).

- (4) [BCv3: l-orizzont.64586]
 wara l-ewwel sena
 after DEF-first year
 ‘after the first year’

In North African Arabic, ordinal numerals can either precede or follow their heads, but when they precede them, they never take the definite article, even when the noun phrase is semantically definite (see e.g. Ritt-Benmimoun 2014: 284 for Tunisian Arabic). In contrast, Maltese never allows its ordinal numerals to follow their heads, and the definite article is obligatory.

All these arguments, including the comparison with related Arabic varieties, suggest that the pre-nominal position of some adjectives and ordinal numerals in Maltese is due to transfer under recipient-language agentivity from Italian.

3.3.1.2 The analytical passive

As with adjectives (§3.3.1.1), lexical borrowings from Italo-Romance have also had a significant impact on the syntax of Maltese verbs. One of the most conspicuous consequences of this development involves the passive voice: as Romance-origin verbs cannot generally form one of the passive derived verbal stems (but see §3.2.2.1), they brought with them their Romance syntax and thus a new type of passive construction arose in Maltese – the analytical passive.

¹³With the exception of the very specific category of demonstrative pronouns where gender and number are marked not by affixes, but rather a form of suppletion.

In Maltese, there are two types of analytical passive construction containing a passive participle: the so-called “dynamic passive” (Vanhove 1993: 321–324; Borg & Azzopardi-Alexander 1997: 214), which combines passive participles with the passive auxiliary *gie* ‘to come’; and the so-called “stative passive” (Borg & Azzopardi-Alexander 1997: 214, Vanhove 1993: 318–320), which has the same structure as copular clauses (see §3.3.2.3), the only difference being that stative passive constructions can feature an agentive NP introduced by the preposition *minn* ‘from’ (see Čéplö 2018: 104–107 for a detailed analysis).

The stative passive can be viewed as an extension of the structurally identical construction which is sporadically attested already in Classical Arabic (Ullmann 1989: 76–84), but becomes quite prominent in Christian Arabic documents at least as early as tenth century, where, incidentally, it gained prominence under influence from Aramaic and Greek (Blau 1967: 424).

The dynamic passive (5), on the other hand, is a straightforward calque on either Italian or Sicilian, where a construction featuring a verb semantically equivalent to *gie* ‘to come’ – *venire* in Italian – combines with a past participle (see also Manfredi, this volume).

- (5) [MUDTV1: 30_01P05]
 Kif diġà għedt, gie ppreżentat il-kuntratt.
 as already say.PRF.1SG come.PRF.3SG.M present.PTCP.PASS DEF-contract
 ‘As I already said, the contract was presented.’

While the dynamic passive must have originally functioned to fill a hole in the verbal system of Maltese by providing a way to passivize Romance verbs, it has meanwhile spread to include native verbs as well, as with *ta* ‘to give’ (< $\sqrt{\text{t}y}$) in (6).

- (6) [BCv3: inewsmalta-ott.29.2013.1257-11045]
 It-tagħrif gie mogħti mill-Ministru
 DEF-information come.PRF.3SG.M give.PTCP.PASS from.DEF-minister
 Konrad Mizzi.
 Konrad Mizzi.
 ‘The information was given by Minister Konrad Mizzi.’

3.3.1.3 Modality

Another clear-cut example of grammatical calquing comes from the domain of modality and involves the pseudoverb *għand-*. In Maltese, its primary function is that of a possessive (7), as is the case with its cognates *find-/sand-* in many Arabic varieties.

- (7) [MUDTV1: 22_02J03]
 M' għandi xejn kontri-hom.
 NEG have.1SG nothing against-3PL
 'I have nothing against them.'

In addition to this, however, the Maltese *għand-* has also taken on a function as a deontic modal of weak obligation 'should, ought' taking verbal complement, as in (8).¹⁴

- (8) [MUDTV1: 22_02J03]
 Naqbel li għandhom jivvutaw aktar nies.
 agree.IMPF.1SG COMP have.3PL vote.IMPF.3PL more people.
 'I agree that more people should vote.'

The use of *għand-* in this kind of modal function appears to be unique to Maltese; not even Cypriot Maronite Arabic with its many parallels to Maltese (on which see below) exhibits the same behavior for its cognate *šint-* (Borg 2004: 346) and uses a different verb, *salah/pkyislah* (Borg 2004: 323), as the default deontic modal. The Maltese development must therefore be another calque, since the basic possessive verb of Sicilian, *aviri*, also doubles as a deontic modal, as in (9).

- (9) Sicilian (Piccitto 1977: 340)
 Cci l' àiu a-ddiri a-tto patri.
 DAT.3SG.M OBJ.3SG.M have.PRES.1SG to-say.INF DAT-2SG.M father
 'I have to say it to your father.'

3.3.2 Sentence syntax

3.3.2.1 Differential object marking

Differential object marking (DOM) is a phenomenon whereby direct objects are marked according to some combination of the semantic and pragmatic properties of the object in question. In Spanish, for example, objects denoting humans (and equivalent entities) are marked by the particle *a*, originally a directional preposition. DOM is a phenomenon attested cross-linguistically (see Khan 1984 for Semitic languages), including in varieties of Arabic such as Levantine, Iraqi (Coghill 2014 and references therein), and Andalusí (University of Zaragoza 2013: 108).

¹⁴ *għand-* is the only Maltese pseudoverb (and verb) which exhibits a three-way distinction between present (*għand-*), past (*kell-*) and future/habitual (*ikoll-*) forms; all can occur in the modal function.

DOM is a well-documented feature of Maltese morphosyntax and largely conforms to the Spanish prototype: in general, both pronominal and nominal direct objects denoting entities high in the “animacy hierarchy” (Borg & Azzopardi-Alexander 1997: 55) take the object marker *lil* (10), which also does double duty as the indirect object marker for all objects. Inanimate direct objects do not take *lil* (11).

- (10) [BCv3: ilgensillum.2011-Mejju-22.8230]
 Min jara lili jara lil Missier-i.
 who see.IMPF.3SG.M OBJ.1sg see.IMPF.3SG.M OBJ father-OBL.1SG
 ‘Who looks at me, looks at my Father.’
- (11) [BCv3: l-emigrant]
 Min jara orrizzonti godda u min baħħ.
 who see.IMPF.3SG.M horizon.PL new.PL and who void.
 ‘Some see new horizons, some see a void.’

Döhla (2016) examines DOM in Maltese in some detail and arrives at the conclusion that while there is “a certain predisposition for object marking in general within pan-Arabic grammar” (2016: 169), Maltese DOM cannot be ascribed to purely internal developments within Arabic. A striking feature of the Arabic varieties that exhibit DOM is that they were all in prolonged contact with other languages: Aramaic for Levantine and Iraqi Arabic (and, by extension, for Cypriot Maronite Arabic, cf. Borg 2004: 412), Romance for Andalusí Arabic and Maltese. In the case of Maltese, the Romance variety in question is Sicilian, where the object marker *a* performs the same double duty as the Maltese *lil*, and DOM in both languages shows a number of remarkable similarities: in both Sicilian and Maltese, DOM is primarily triggered “by humanness along with definiteness/referentiality” (Iemmolo 2010: 257, in reference to Sicilian), it is obligatory with personal pronouns, but optional with plural “kinship terms and human common nouns” and disallowed with “(in)animate and indefinite non-specific nouns” (Iemmolo 2010: 257, again in reference to Sicilian), as exemplified by the non-specific Maltese *nies* ‘people’ in (12).

- (12) [BCv3: l-orizzont.41390]
 Min irid jara nies jghixu hekk?
 who want.IMPF.3SG.M see.IMPF.3SG.M people live.IMPF.3PL.M thus
 ‘Who wants to see people live like that?’

In Maltese DOM, then, we have an instance of what Manfredi (this volume) labels “calquing of polyfunctionality of grammatical items inducing syntactic

change”: Maltese acquired a rule of DOM as a result of the indirect object marker *lil* inheriting the dual function of its Sicilian equivalent *a*. It is clear that this is a contact-induced change. But since with this and the similar changes discussed below there is no transfer of lexical matter, it seems impossible at present to judge whether they are the result of borrowing or imposition, or whether they were actuated by speakers for whom neither the source language nor the recipient language were dominant, in the process that Lucas (2015) calls “convergence”.

3.3.2.2 Clitic doubling (proper)

The existence of various reduplicative phenomena associated with direct and indirect clitic pronouns in Maltese has been noted at least since Sutcliffe (1936: 179), who identifies what classical tradition refers to as *nominativus pendens*. This analysis has been elaborated on by Fabri (1993), Borg & Azzopardi-Alexander (1997) and Fabri & Borg (2002), primarily in the context of pragmatically determined constituent order variation, especially topicalization. Building on these works and the analysis of Maltese clitics by Camilleri (2011), Čéplö (2014) notes that in addition to these phenomena, which in one way or another entail dislocation, there exists in Maltese another related phenomenon, where lexical objects and clitic pronouns co-occur, but without the dislocation of the lexical object. This phenomenon, termed Clitic Doubling Proper to distinguish it from similar constructions (see Krapova & Cinque 2008 for a detailed analysis), involves the co-occurrence of a lexical object and the clitic with the object in situ, which in Maltese is after the verb (see Čéplö 2018). Maltese Clitic Doubling Proper occurs with both direct (13) and indirect objects (14).

- (13) [BCv3: l-orizzont.36758]
 Ftit nies jafu-**ha** l-istorja marbuta ma'
 few people know.IMPF.3PL.M-3SG.F DEF-history connected.SG.F with
 dan il-proġett tant sabiħ.
 DEM.SG.M DEF-project such beautiful
 ‘Few people know the history connected with such a beautiful project.’
- (14) [BCv3: 20020313_714d_par]
 Hekk qed nġhidu-**lhom** lil dawn in-nies f’ pajjiż-na.
 thus PROG say.IMPF.1PL-DAT.3PL DAT DEM.PL DEF-people in country-1PL
 ‘This is what we say to these people in our country.’

Unlike various types of dislocation with resumptive clitic pronouns which are quite common in European languages (see e.g. de Cat 2010), Clitic Doubling

Proper is a much rarer phenomenon; in Europe, it is largely confined to the Balkan *Sprachbund* (Friedman 2008) and some Romance languages outside of the Balkans, like Spanish (Zagona 2002: 7) and varieties of Italian (Russi 2008: 231–233). The phenomenon is also attested in Semitic languages (Khan 1984), including Arabic, where it was studied in detail by Souag (2017). Comparing Clitic Doubling Proper in various varieties of Arabic including Maltese, Souag (2017: 57) notes parallels between Maltese and some varieties of Algerian Arabic, especially in regard to the doubling of indirect objects. Ultimately, however, he arrives at the conclusion that Maltese Clitic Doubling Proper “has little in common with any other Arabic variety examined, but closely resembles that found in Sicilian” (Souag 2017: 60). This suggests that here too we have a contact-induced change, this time of the sort that Manfredi (this volume) labels “narrow syntactic calquing”, that is, without any accompanying calque of lexical items.

3.3.2.3 Copular constructions

In Maltese, there are four types of copular clauses (Borg & Azzopardi-Alexander 1997: 53):¹⁵

Type 1: No copula

Type 2: The verb *kien* as the copula

Type 3: Personal pronoun as the copula

Type 4: Present participle *qiegħed* as the copula

Type 1 describes what traditional grammars of Semitic languages refer to as nominal sentences; copular clauses with an explicit verbal copula (*kien*) then fall into Type 2. Types 3 and 4, while not without parallel in other varieties Arabic,¹⁶ feature much more prominently in Maltese. This is especially true of Type 3 copular clauses, which involve the use of a personal pronoun as the copula (15).

- (15) [BCv3: 2010 Immanuel Mifsud - Fl-Isem tal-Missier (U tal-Iben)]
Din hi omm-ok.
this.F 3SG.F mother-2SG
'This is your mother.'

¹⁵In addition to these, Borg (1987–1988) and Borg & Spagnol (2015) also describe the copular function of the verb *jinsab* ‘to be found’. This being a finite verb, both Borg & Azzopardi-Alexander (1997: 53) and Čéplö (2018: 99–104) exclude this type of clause, as well as similar ones, such as those featuring the verb *sar* ‘to become’, from the category of copular clauses.

¹⁶See the analysis of Type 4 copulas in Camilleri & Sadler (2019).

Similar copular constructions to that illustrated in (15) have been described for several Maghrebi varieties (cf. Vanhove 1993: 355), but Maltese stands apart in terms of the frequency with which Type 3 constructions occur: in MUDTv1, for example, 110 non-negative copular clauses are of Type 1; 181 are Type 3. In this, Maltese Type 3 copular clauses are comparable to equivalent copular constructions in Anatolian Arabic (see Lahdo 2009: 172–173 for Tillo Arabic and the references therein, as well as Akkuş, this volume), Andalusi Arabic (University of Zaragoza 2013: 105), and especially Cypriot Maronite Arabic (Borg 1985: 135; Walter, this volume), where they are but one piece of evidence linking Cypriot Maronite Arabic to *qaltu* dialects (Borg 2004: 31). The conclusion to be drawn here is the same as for DOM and Clitic Doubling Proper above: it is no coincidence that these copular constructions are in wide use and the copular construction of choice especially in varieties of Arabic which have been under contact influence from languages with a mandatory copula – Turkish for Anatolian Arabic, Spanish for Andalusi Arabic, Greek for Cypriot Maronite Arabic, and Italian for Maltese. Whether the origin of such constructions can be traced to a feature in (one of) these dialects’ Old Arabic ancestors, or whether they came about through parallel development, contact undoubtedly triggered the widespread adoption of such constructions in these varieties of Arabic.

3.4 Lexicon

3.4.1 Major sources

That Maltese contains large numbers of loanwords from Romance and English is a fact immediately obvious to even the most casual observer. Over the years, there have been a number of attempts to quantify the influence of other languages on Maltese by providing a classification of lexemes by their origin. The earliest, Fenech (1978: 216–217), compiled such statistics for journalistic Maltese, but also provided a comparison to literary and spoken Maltese (albeit using a very small data sample). Brincat analyzed the etymological composition of entries in Aquilina’s dictionary, first examining the origin of 34,968 out of all 39,149 headwords (Brincat 1996: 115) and then applying the same analysis to the entire list (Brincat 2011: 407); Mifsud & Borg (1997) did the same with the vocabulary contained in an introductory textbook of Maltese as a foreign language. In 2006, Bovingdon & Dalli (2006) analyzed the etymology of lexical items in a 1000-word sample obtained from a corpus of Maltese and, most recently, Comrie & Spagnol (2016: 318) did the same on a list of 1500 “lexical meanings” within the framework of the *Loanwords in the world’s languages* project (Haspelmath & Tadmor 2009). Figure 1 summarizes all these findings.

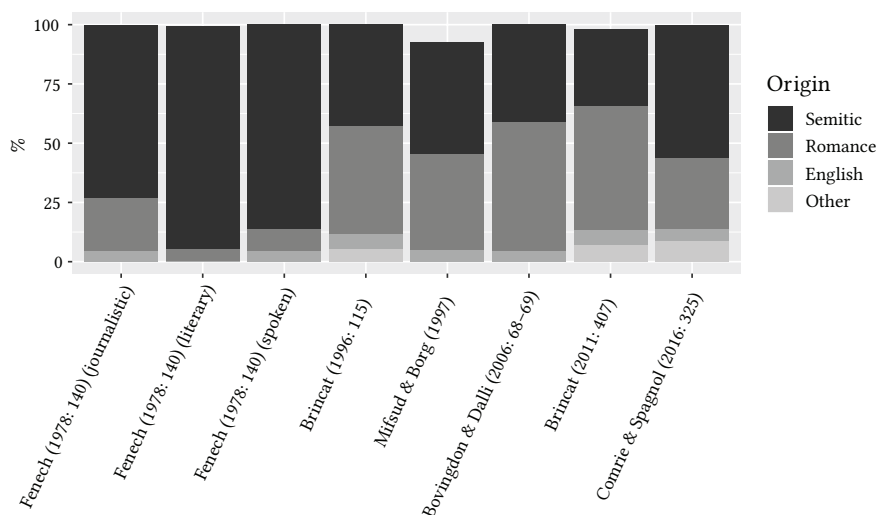


Figure 1: A summary of previous studies of the composition of the Maltese lexicon

The primary explanation for the sharp differences between these analyses is methodology: while Fenech (1978) analyzes entire texts and thus counts tokens, Brincat (1996) (including its updated version in Brincat 2011) and Bovington & Dalli (2006) analyze lists of unique words, i.e. types. The later is also true of Mifsud & Borg (1997) and Comrie & Spagnol (2016), except where Brincat (1996) uses dictionary data and Bovington & Dalli (2006) corpus data, Mifsud & Borg (1997) employ a list of lexical items with high frequency of use in daily communication and Comrie & Spagnol (2016) base their analysis on a list compiled for the purposes of cross-linguistic comparison. The high ratio of words of Semitic origin in token-based analyses is thus due to the prevalence of function words, which are overwhelmingly Arabic. The type-based analyses then provide a somewhat more accurate picture of the lexicon as a whole, even though they are not without their problems. Chief among these is the issue of what exactly counts as type, especially with regard to productive derivational affixes, e.g. whether all the words with the prefix *anti-* count as distinct types or not.

In addition to general analyses, both Bovington & Dalli (2006) and Comrie & Spagnol (2016) also provide breakdowns for individual parts of speech. Unfortunately, these analyses are not comparable, as each has a different focus: Bovington & Dalli (2006: 71) are interested in the composition of each etymological stock by word class (Table 3).

Table 3: Source language component of Maltese by word class (Bovingdon & Dalli 2006: 71).

Origin	Function words	V	Adj	N	Adv	Prn
Semitic	3%	70%	2%	21%	2%	2%
Romance	0%	38%	11%	48%	3%	0%
English	0%	29%	8%	63%	0%	0%

In contrast, Comrie & Spagnol (2016: 328) focus on the composition of individual word classes by their origin (Table 4).¹⁷

Table 4: Word class composition by source language (Comrie & Spagnol 2016: 328)

Word class	Arabic	Romance	English	Misc.
Function words	84.7%	6.2%	0%	9.1%
Verbs	75.3%	14.1%	1.3%	9.2%
Adjectives	65.2%	28.5%	0.3%	6.0%
Nouns	44.7%	39.6%	7.2%	8.6%

Comrie & Spagnol (2016) also provide a breakdown of their data by semantic field, permitting a comparison of the domains in which Romance versus English loans are more or less prominent. A number of generalizations can be made here (see Table 5 for a summary), though ultimately they all follow naturally from the fact that contact with English was more recent, and less intensive, than contact with Sicilian and Italian.

Unsurprisingly, English is best represented in the category of items relating to the modern world, but even here Romance dominates. Examples include English-derived *televixin* ‘television’ and Italian-derived *kafè* ‘coffee’.

The domain of animals divides rather neatly as follows. Common animals (especially land animals) of the Mediterranean area are largely Arabic-derived (e.g.

¹⁷The details of Comrie & Spagnol’s (2016) methodology mean that loans in their dataset come from Romance and English but not from any other languages. The category we label “Misc.” in Tables 4 and 5 encompasses those meanings in the *Loanwords in the world’s languages* 1500-item set which have no corresponding single-word Maltese lexical item, and those where the etymology is at present unknown, or where the item in question is an innovative Maltese-internal coinage.

Table 5: Composition of semantic fields by source language (Comrie & Spagnol 2016: 327)

Semantic field	Arabic	Romance	English	Misc.
Modern world	3.0%	65.3%	22.8%	9.0%
Animals	47.8%	29.1%	13.9%	9.1%
Clothing and grooming	38.7%	47.2%	10.4%	3.8%
Warfare and hunting	28.8%	65.0%	2.5%	3.8%
Law	36.0%	50.0%	0.0%	14.0%
Social and political relations	48.4%	48.4%	0.0%	3.2%

fenek ‘rabbit’ < Maghrebi Arabic *fanak* ‘fennec fox’), while well-known non-indigenous animals are largely Romance-derived (e.g. *ljunfant* ‘elephant’ < Sicilian *liufanti*, the additional /n/ perhaps the result of influence from *ljun* ‘lion’). More exotic animals, if there is a corresponding Maltese item at all, derive from English (e.g. *tapir* ‘tapir’). Clothing and grooming presents a similar picture, with Arabic-derived *suf* ‘wool’, Sicilian-derived *ngwanta* ‘glove’, and English-derived *fer* ‘fur’, as does warfare and hunting, with Arabic-derived *sejf* ‘sword’, Sicilian-derived *xkubetta* ‘gun’, and English-derived *senter* ‘shotgun’ (< *centre-breech-loading shotgun*).

The total lack of English loans in the domains of law and social and political relations, at least in Comrie and Spagnol’s sample, is remarkable, given the extent to which the English language dominated public life in Malta in the twentieth century. A generalization that underlies this finding is that while English influence is strongest in the spheres of commerce, consumerism and, especially in the twenty-first century, popular culture (e.g. *vawċer* ‘voucher’, *ċċettja* ‘to chat’),¹⁸ at least as far as Maltese lexicon is concerned, it has not supplanted Italian in the domains of high culture and the affairs of state (e.g. *gvern* ‘government’ < Italian *governo*, *poeżija* ‘poem’ < Italian *poesia*).

¹⁸Until at least 1991, when the Maltese government opened up television broadcasting rights to more than just the single state broadcaster TVM, Italian television stations, whose broadcasts from Sicily could be received in Malta, were very widely watched, and there was consequently considerable Italian influence on Maltese popular culture (Sammut 2007). This influence has waned considerably at the expense of English and American culture since the advent of broadcast pluralism in Malta, and especially with the rise of cable television and online video streaming.

3.4.2 Minor sources

Considering its location and the nature of population movements in the Mediterranean, it is hardly surprising that the Maltese lexicon also contains borrowings from languages other than Sicilian, Italian and English. The most obvious of these are borrowings from other Romance languages. First among them, as in other European languages, stands Latin, which provided a large chunk of Maltese scientific and technical vocabulary, whether as terminology (e.g. *ego*, *rektum* or *sukkursu* ‘underground water’), biological nomenclature (*fagu* ‘European beech, *Fagus sylvatica*’, *mirla* ‘brown wrasse, *Labrus merula*’) or set phrases and expressions (*ex cathedra*, *ibidem*). Curiously for a Catholic country, Latin is the source of very little religious vocabulary in Maltese; in this area, Maltese continues to rely almost exclusively on words of Arabic origin. Those Latin words related to religious matters employed in modern Maltese therefore typically refer to minutiae of Catholic Church rituals and procedures, such as *ekseat* ‘a bishop’s permission for a priest to leave the diocese’ (< *exeat*) or *indult* ‘a Pope’s authorization to perform an act otherwise not allowed by canon law’. Of the few Latin terms related to religion still in common use, *nobis* stands out as a rather curious lexical item: in Maltese, it is used as a (post-nominal) modifier indicating intensity or size, as in *tkaxkira nobis* ‘a sound thrashing’ or *tindifa nobis* ‘a thorough cleaning’.

Before the Order of Saint John gained control of Malta, the islands were for more than two centuries a part (whether officially or not) of the Crown of Aragon. As such, one would expect that speakers of Maltese during that era found themselves exposed to the languages of the Crown like Catalan, Spanish and Occitan, and that this was then reflected in the Maltese lexicon. In truth, however, there are only a few Maltese words that can clearly be traced to Ibero-Romance. Biosca & Castellanos (2017) identify a number of lexical items with Catalan or Occitan origins, but note that many of them can also be found in Sicilian, which in most cases can be clearly determined as the origin of the loan. On the other hand, there are Maltese words of obviously Romance origin whose current shape cannot be easily explained by any of the processes by which Sicilian or Italian words were made to conform to Maltese phonology, and where the Catalan or Occitan origin postulated by Biosca & Castellanos (2017) may offer a better explanation than that of “local formation” resorted to by previous works. These may include: *boxxla* ‘compass’ < Catalan *búixola* vs. Italian *bussola*; *frixax* ‘pancreas’ < Catalan *freixura* ‘entrails’ and even the very frequent *żgur* ‘certain’, which, due to its phonology, especially the /g/ (see §3.1.1.1), points to an origin in Catalan *segur* or Spanish *seguro*, rather than to its (Tuscan) Italian or Sicilian cognates, which both feature a /k/ in its place. These and other lexical items, onomastics (see Biosca &

Castellanos 2017: 46), and even usage (such as the ubiquitous Maltese swear word *l-ostja*, literally ‘the host, sacramental bread’, which is very atypical for Italian or Sicilian, but has a counterpart in the Spanish *la hostia*) suggest some influence of Ibero-Romance on Maltese which is yet to be thoroughly researched.

The much shorter French occupation of the Maltese islands left very little linguistic trace, and so it is internationalisms in the semantic field of culture (*bonton* ‘high society’, *etikett* ‘etiquette’), fashion (*manikin* ‘manequin’) and the culinary arts (*fundan* ‘fondant’, *ragu* ‘ragout’) where French borrowings in Maltese can be found. The few notable exceptions include *berġa* (< *auberge*), the term used for the residences of langues (chapters) of the Order of Saint John. The most prominent of these palaces, *Berġa ta’ Kastilja*, now houses the office of the Prime Minister of Malta, for which the term *Berġa* is often used metonymically. The other two Maltese words of French origin still in frequent daily use both happen to be connected to transportation: *xufier* (< *chauffeur*) ‘driver’ and *xarabank* (< *char à bancs*) ‘bus’. The latter is particularly interesting due to its pronunciation /ʃerəbɛnk/, which indicates that it was borrowed directly from French and not from English (which would give /ʃerəbɛnk/, as well as for its connection to the French-speaking Maghreb, where the same word was in use; this indicates the possibility that it was brought from there by Maltese expatriates.

In addition to Romance languages, post-classical Greek, with its ubiquitous presence all across the Mediterranean (including the neighboring Sicily), could not help but leave a trace on Maltese vocabulary, small though it is. Aquilina (1976: 23) gives *Lapsi* ‘Feast of Ascension’ (< *análipsi*) as the solitary example of a Maltese religious term not inherited from Christian Arabic or borrowed from Romance languages. The other two examples of Greek loanwords involve a completely different sphere. The first is *hamallu* ‘lewd, vulgar person’, from Greek *xamális* (Dimitrakou 1958: 7781). This word may ultimately be traceable to Arabic (through Turkish), as is evident from its other meaning in Greek, namely ‘porter’ (< *ḥammāl*). However, the meaning in which it appears in Maltese is unique to the Greek word, indicating that it was borrowed into Maltese from Greek. The other such term is *vroma* ‘complete failure, fiasco’ which is quite straightforwardly traceable to the Greek *vróma* ‘dirt, filth’ (Dimitrakou 1958: 1506, 1516).

With regard to the debates on the origin and history of Maltese, borrowings from other Afro-Asiatic languages have long been at the centre of attention of Maltese etymological research. Berber is perhaps the most notorious example here, with a number of items cited as having Berber origins by Colin (1957) and Aquilina (1976: 25–39). Aquilina’s list is an expansion of Colin’s and thus both feature the same conspicuous items, which for the most part involve zoology, such as *fekruna* ‘tortoise’ (< *fekrun*; Naït-Zerrad 2002: 553) and *gendus* ‘bull’ (<

agenduz; Nait-Zerrad 2002: 827). Additionally, Aquilina postulates a Berber origin for a number of lexical items where this seems questionable. In some cases the items in question are obviously Arabic loanwords in Berber (as with *bilhaqq* ‘by the way’, quite transparently from Arabic *b-il-ḥaqq* ‘in truth’). In other cases subsequent research has argued against a Berber origin. For example, while Aquilina identifies *ženbil* ‘a large carrying basket’ as having a Berber origin, Borg (2004: 261) notes that it can also be found in the Arabic dialect of Aleppo and Arbil, and traces its ultimate origin to Akkadian through Aramaic. A large group of similarities between Maltese and Berber identified by Aquilina involve “Berber nursery language”, containing items like Berber *papa* ‘bread’ and Maltese *pappa*, Berber *ppspps* or *ppssi* ‘urine’ and Maltese *pixxa*, and Berber *kakka/qaqah* and Maltese *kakka* (both having to do with defecation). These forms are actually attested cross-linguistically (Ferguson 1964) at least as far north as Slovak (Ondráčková 2010) and cannot thus be considered loans from Berber. Nevertheless, the fact that there is a Berber lexical component in Maltese is well established, and Souag (2018) has shown that it may be larger than previously thought (e.g. his case for the Berber etymology of the frequent adjective *čekjken* ‘small’).

Finally, in addition to Berber, Maltese also contains a small number of words that can be reasonably traced back to Aramaic. Along with obsolescent lexical items such as *ženbil* given above or *andar* ‘threshing floor’ (Behnstedt 2005: 116–117), this small list includes the frequent verb *xandara* ‘to broadcast, to spread (news)’, otherwise unattested in any other variety of Arabic (Borg 1996: 46). This verb is presumably derived from the common Aramaic root $\sqrt{\text{šdr}}$ ‘to dispatch, send’ with cognates in Mandaic (Drower & Macúch 1963: 450), Jewish Babylonian Aramaic (JBA; Sokoloff 2002: 1112–1113) and Christian Neo-Aramaic (Khan 2008: 1179). The insertion of [n] reflects the dissimilation of the geminated [dd] into [nd] (Lipiński 1997: 175–176); the same phenomenon involving the original geminated [bb] can also account for *ženbil* (cf. JBA *zabbilā*; Sokoloff 2002: 397). These borrowings could on the one hand strengthen the case for a Levantine substrate in (if not origin of) Maltese, as Borg (1996) insists; on the other hand, some of them can also be found in other North African varieties (Behnstedt 2005).

4 Conclusion

This chapter has reviewed the extensive changes that have taken place in Maltese as a result of contact with Sicilian, Tuscan Italian, English, and other languages. The changes due to contact with Italo-Romance languages are so striking, especially but by no means only with respect to lexicon, that it is almost misleading

to speak of these contacts having changed “Maltese”. Rather it might be argued that it was a Maghrebi Arabic dialect like any other that was subjected to these changes, and that Maltese, the distinct language that its speakers now feel it to be, was what emerged only once these changes were complete. The result is a language in which typically Semitic and typically Indo-European elements exist side-by-side at all linguistic levels.

The elements of contemporary Standard Maltese that are the result of contact, summarized in this chapter, are now relatively well understood. But the language has naturally also evolved in numerous ways that owe little or nothing to the effects of contact with other languages. With a few notable exceptions (e.g. Borg 1978; Vanhove 1993), these changes have received far less attention. A desideratum for future historical linguistic work on Maltese is therefore to redress this imbalance.

Concerning contact-induced change specifically, future research could fruitfully include comparative work on the differential effects of contact on standard versus dialectal Maltese. And to the extent that it is possible, the field would benefit greatly from a detailed history of the sociolinguistic effects of language contact in Malta in the early modern period.

Further reading

- Krier (1976) is a short monograph on the influence of Italo-Romance on Maltese phonology, morphology, syntax, and lexicon.
- Mifsud (1995) gives an in-depth description of Maltese loaned verbs.
- Comrie & Spagnol (2016) examine lexical borrowing in Maltese in the context of loanword typology crosslinguistically.
- Drewes (1994) and Stolz (2003) explore the question of whether Maltese is properly labeled a “mixed language”.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	L1, L2	1st, 2nd language
Adj	adjective	M	masculine
Adv	adverb	MUDTv1	Maltese Universal Dependencies Treebank v1
BCE	before Common Era	N	noun
BCv3	Bulbulistan corpus malti v3	NEG	negative (particle)
CE	Common Era	NP	noun phrase
COMP	complementizer	OBJ	object
DAT	dative	OBL	oblique
DEF	definite article	PASS	passive
DEM	demonstrative	PL	plural
DEP	dependent form	PRF	perfect (suffix conjugation)
DOM	differential object marking	Prn	pronoun
F	feminine	PROG	progressive
JBA	Jewish Babylonian Aramaic	PTCP	participle
GEN	genitive	SG	singular
IMPF	imperfect (prefix conjugation)	SING	singulative
INF	infinitive	V	verb
PRG	pragmatic marker		

Primary sources

Maltese examples above are primarily cited from the general corpus of Maltese *bulbulistan corpus malti v3* (accessible at www.bulbul.sk/bonito2, login: guest, password: Ghilm3), as well as from the *Maltese Universal Dependencies Treebank v1* (accessible at www.bulbul.sk/annis-gui-3.4.4/), both described as to their composition and annotation in Čěplö (2018). Each citation is accompanied by an abbreviation identifying the source (BCv3 and MUDTv1, respectively), as well as the specific document where it can be found.

References

- Aquilina, Joseph. 1976. *Maltese linguistic surveys*. Malta: The University of Malta.
- Avram, Andrei A. 2012. Some phonological changes in Maltese reflected in onomastics. *Bucharest Working Papers in Linguistics* 14. 99–119.
- Avram, Andrei A. 2014. The fate of the interdental fricatives in Maltese. *Romano-Arabica* (14). 19–32.

- Avram, Andrei A. 2017. Word-final obstruent devoicing in Maltese: inherited, internal development or contact-induced? *Academic Journal of Modern Philology* 6. 23–37.
- Ballou, Maturin M. 1893. *The story of Malta*. Cambridge, MA: The Riverside Press.
- Behnstedt, Peter. 2005. Voces de origen sirio y yemení en el árabe magrebí / andalusí. In Jordi Aguadé, Ángeles Vicente & Leila Abu Shams (eds.), *Sacrum Arabo-Semiticum*, 115–122. Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo (IEIOP).
- Biosca, Carles & Carles Castellanos. 2017. Aspects of the comparison between Maltese, Mediterranean Lingua Franca and the Occitan-Catalan linguistic group (13th–15th centuries). In Benjamin Saade & Mauro Tosco (eds.), *Advances in Maltese linguistics*, 39–64. Berlin: De Gruyter.
- Blau, Joshua. 1967. *A grammar of Christian Arabic based mainly on South-Palestinian texts from the first millennium, Fasc. ii: §§170–368*. Louvain: Secrétariat du CorpusSCO.
- Blouet, Brian. 1967. *The story of Malta*. London: Faber & Faber.
- Borg, Albert. 1987–1988. To be or not to be: A copula in Maltese. *Journal of Maltese Studies* 17–18. 54–71.
- Borg, Albert & Marie Azzopardi-Alexander. 1997. *Maltese*. London: Routledge.
- Borg, Albert & Michael Spagnol. 2015. Nominal sentences in Maltese: A corpus-based study. Paper presented at the 5th International Conference on Maltese Linguistics, University of Turin, June 24–26.
- Borg, Alexander. 1978. *A historical and comparative phonology and morphology of Maltese*. Jerusalem: The Hebrew University of Jerusalem. (Doctoral dissertation).
- Borg, Alexander. 1985. *Cypriot Arabic: A historical and comparative investigation into the phonology and morphology of the Arabic vernacular spoken by the Maronites of Kormakiti village in the Kyrenia district of north-west Cyprus*. Stuttgart: Deutsche Morgenländische Gesellschaft.
- Borg, Alexander. 1994. Some evolutionary parallels and divergences in Cypriot Arabic and Maltese. *Mediterranean Language Review* 8. 41–67.
- Borg, Alexander. 1996. On some Levantine linguistic traits in Maltese. *Israel Oriental Studies* 16. 133–152.
- Borg, Alexander. 1997. Maltese phonology. In Alan S. Kaye (ed.), *Phonologies of Asia and Africa*, vol. 1, 245–285. Winona Lake, IN: Eisenbrauns.
- Borg, Alexander. 2004. *A comparative glossary of Cypriot Maronite Arabic (Arabic–English): With an introductory essay*. Leiden: Brill.

- Bovingdon, Roderick & Angelo Dalli. 2006. Statistical analysis of the source origin of Maltese. In Andrew Wilson, Dawn Archer & Paul Rayson (eds.), *Corpus linguistics around the world*, 63–76. Amsterdam: Rodopi.
- Brincat, Joseph M. 1995. *Malta 870–1054: Al-Ḥimyari’s account and its linguistic implications*. Valetta: Said International.
- Brincat, Joseph M. 1996. Maltese words: An etymological analysis of the Maltese lexicon. In Jens Lüdtke (ed.), *Romania Arabica. Festschrift für Reinhold Kontzi zum 70. Geburtstag*, 111–115. Tübingen: Gunter Narr.
- Brincat, Joseph M. 2011. *Maltese and other languages: A linguistic history of Malta*. Malta: Midsea Books.
- Brincat, Joseph M. & Manwel Mifsud. 2015. Maltese. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen & Franz Rainer (eds.), *Word-formation: An international handbook of the languages of Europe*, 3349–3366. Berlin: De Gruyter Mouton.
- Camilleri, Maris. 2011. On pronominal verbal enclitics in Maltese. In Sandro Caruana, Ray Fabri & Thomas Stolz (eds.), *Variation and change: The dynamics of Maltese in space, time and society*, 131–156. Berlin: Akademie Verlag.
- Camilleri, Maris & Louisa Sadler. 2019. The grammaticalisation of a copula in vernacular Arabic. *Glossa* 4(1: 137). 1–33.
- Caubet, Dominique. 2011. Moroccan Arabic. In Lutz Edzard & Rudolf de Jong (eds.), *Encyclopedia of Arabic language and linguistics*, online edn. Leiden: Brill.
- Coghill, Eleanor. 2014. Differential object marking in Neo-Aramaic. *Linguistics* 52(2). 335–364.
- Cohen, David. 1966. Le système phonologique du maltais: Aspects synchroniques et diachroniques. *Journal of Maltese Studies* 3. 1–26.
- Cohen, David. 1970. Le système phonologique du maltais: Aspects synchroniques et diachroniques. In David Cohen (ed.), *Etudes de linguistique arabe et sémitique*, 126–149. The Hague: Mouton.
- Colin, Georges S. 1957. Mots «berbères» dans le dialecte arabe de Malte. In *Mémorial André Basset (1895–1956)*, 7–16. Paris: Adrien Maisonneuve.
- Comrie, Bernard & Michael Spagnol. 2016. Maltese loanword typology. In Gilbert Puech & Benjamin Saade (eds.), *Shifts and patterns in Maltese*, 315–329. Berlin: De Gruyter Mouton.
- Čéplö, Slavomír. 2014. An overview of object reduplication in Maltese. In Albert Borg, Sandro Caruana & Alexandra Vella (eds.), *Perspectives on Maltese linguistics*, 201–222. Berlin: De Gruyter.
- Čéplö, Slavomír. 2018. *Constituent order in Maltese: A quantitative analysis*. Prague: Charles University. (Doctoral dissertation).

- de Cat, Cécile. 2010. *French dislocation: Interpretation, syntax, acquisition*. Oxford: Oxford University Press.
- de Sacy, Silvestre. 1829. [no title]. *Journal des Savants* 4. 195–204.
- de Soldanis, Giovanni Pietro Francesco Agius. 1750. *Della lingua punica presentemente usata da Maltesi*. Rome: Generoso Salomoni.
- Dimitrakou, Dimitriou. 1958. *Méga leksikón tés Ellénikés glósses*. Athens: Ekdoseis Domi.
- Döhla, Hans-Jörg. 2016. The origin of differential object marking in Maltese. In Gilbert Puech & Benjamin Saade (eds.), *Shifts and patterns in Maltese*, 149–174. Berlin: De Gruyter Mouton.
- Drewes, A. J. 1994. Borrowing in Maltese. In Peter Bakker & Maarten Mous (eds.), *Mixed languages: 15 case studies in language intertwining*, 83–111. Amsterdam: Institute for Functional Research into Language & Language Use (IFOTT).
- Drower, Ethel Stefana & Rudolf Macúch. 1963. *A Mandaic dictionary*. Oxford: Clarendon Press.
- Fabri, Ray. 1993. *Kongruenz und die Grammatik des Maltesischen*. Tübingen: Max Niemeyer.
- Fabri, Ray & Albert Borg. 2002. Topic, focus and word order in Maltese. In Abderrahim Youssi, Fouzia Benjelloun, Mohamed Dahbi & Zakia Iraqui-Sinaceur (eds.), *Aspects of the dialects of Arabic today*, 354–363. Rabat: AMAP-ATRIL.
- Fenech, Edward. 1978. *Contemporary journalistic Maltese*. Leiden: Brill.
- Ferguson, Charles A. 1964. Baby talk in six languages. *American Anthropologist* 66(6). 103–114.
- Fiorini, Stanley. 1986. The resettlement of Gozo after 1551. *Melita Historica* 9. 203–244.
- Flege, James Emil, Murray J. Munro & Ian R. A. MacKay. 1995. Effects of age of second-language learning on the production of English consonants. *Speech Communication* 16. 1–26.
- Friedman, Victor A. 2008. Balkan object reduplication in areal and dialectological perspective. In Dalina Kallulli & Liliane Tasmowski (eds.), *Clitic doubling in the Balkan languages*, 35–63. Amsterdam: John Benjamins.
- Gabriel, Christoph & Elena Kireva. 2014. Prosodic transfer in learner and contact varieties: Speech rhythm and intonation of Buenos Aires Spanish and L2 Castilian Spanish produced by Italian native speakers. *Studies in Second Language Acquisition* 36. 257–281.
- Gardani, Francesco. 2012. Plural across inflection and derivation, fusion and agglutination. In Lars Johanson & Martine Robbeets (eds.), *Copies versus cognates in bound morphology*, 71–97. Leiden: Brill.

- Gatt, Albert. 2018. Definiteness agreement and the pragmatics of reference in the Maltese NP. *STUF – Language Typology and Universals* 71(2). 175–198.
- Gatt, Albert & Ray Fabri. 2018. Borrowed affixes and morphological productivity: A case study of two Maltese nominalisations. In Patrizia Paggio & Albert Gatt (eds.), *The languages of Malta*, 143–169. Berlin: Language Science Press.
- Geary, Jonathan. 2017. The historical development of the Maltese plural suffixes *-iet* and *(i)jiet*. Paper presented at the 23rd International Conference on Historical Linguistics, San Antonio, TX, 31 July – 4 August.
- Gesenius, Wilhelm. 1810. *Versuch über die maltesische Sprache zur Beurtheilung der neulich wiederhohnten Behauptung, dass sie Ueberrest der altpunischen sey, und als Beytrag zur arabischen Dialektologie*. Leipzig: Fr. Chr. Willh. Vogel.
- Gibson, Maik. 2011. Tunis Arabic. In Lutz Edzard & Rudolf de Jong (eds.), *Encyclopedia of Arabic language and linguistics*, online edn. Leiden: Brill.
- Goodwin, Stefan. 2002. *Malta: Mediterranean bridge*. Westport, CT: Bergin & Garvey.
- Grech, Paul. 1961. Are there any traces of Punic in Maltese? *Journal of Maltese Studies* 1. 130–138.
- Grice, Martine, Alexandra Vella & Anna Bruggeman. 2019. Stress, pitch accent, and beyond: Intonation in Maltese questions. *Journal of Phonetics* 76. 100913.
- Harrell, Richard S. 2004. *A short reference grammar of Moroccan Arabic*. Washington, DC: Georgetown University Press.
- Haspelmath, Martin & Uri Tadmor (eds.). 2009. *Loanwords in the world's languages: A comparative handbook*. Berlin: De Gruyter Mouton.
- Heath, Jeffrey. 2002. *Jewish and Muslim dialects of Moroccan Arabic*. London: Routledge.
- Herin, Bruno & Martin R. Zammit. 2017. Three for the price of one: The dialects of Kerkennah (Tunisia). In Veronika Ritt-Benmimoun (ed.), *Tunisian and Libyan Arabic dialects: Common trends – recent developments – diachronic aspects*, 135–146. Zaragoza: Prensas de la Universidad de Zaragoza.
- Iemmolo, Giorgio. 2010. Topicality and differential object marking: Evidence from Romance and beyond. *Studies in Language* 34(2). 239–272.
- Khan, Geoffrey. 1984. Object markers and agreement pronouns in Semitic languages. *Bulletin of the School of Oriental and African Studies* 43(3). 468–500.
- Khan, Geoffrey. 2008. *The Neo-Aramaic dialect of Barwar*. Leiden: Brill.
- Klimiuk, Maciej. 2018. Preliminary remarks on the Gozitan dialect of Għarb, Malta. Paper presented at the 12th conference of the Association Internationale de Dialectologie Arabe, Marseille, 30 May – 2 June.

- Krapova, Iliyana & Guglielmo Cinque. 2008. Clitic reduplication constructions in Bulgarian. In Dalina Kallulli & Liliane Tasmowski (eds.), *Clitic doubling in the Balkan languages*, 257–287. Amsterdam: John Benjamins.
- Krier, Fernande. 1976. *Le maltais au contact de l'italien: Etude phonologique, grammaticale et sémantique*. Hamburg: Helmut Buske.
- Lahdo, Ablahad. 2009. *The Arabic dialect of Tillo in the region of Siirt (south-eastern Turkey)*. Uppsala: Uppsala University.
- Lipiński, Edward. 1997. *Semitic languages: Outline of a comparative grammar*. Leuven: Peeters.
- Loporcaro, Michele. 2011. Phonological processes. In Martin Maiden, John Charles Smith & Adam Ledgeway (eds.), *The Cambridge history of the Romance languages*, vol. 1: *Structures*, 109–154. Cambridge: Cambridge University Press.
- Lucas, Christopher. 2015. Contact-induced language change. In Claire Bowerman & Bethwyn Evans (eds.), *The Routledge handbook of historical linguistics*, 519–536. London: Routledge.
- Maiden, Martin & Cecilia Robustelli. 2007. *A reference grammar of modern Italian*. London: Routledge.
- Mifsud, Manwel. 1995. *Loan verbs in Maltese: A descriptive and comparative study*. Leiden: Brill.
- Mifsud, Manwel. 2011. Maltese. In Lutz Edzard & Rudolf de Jong (eds.), *Encyclopedia of Arabic language and linguistics*, online edn. Leiden: Brill.
- Mifsud, Manwel & Albert Borg. 1997. *Fuq l-Għatba tal-Malti*. Strasbourg: Council of Europe Publishing.
- National Statistics Office. 2014. *Census of population and housing 2011: Final report*. Valletta: National Statistics Office.
- Nait-Zerrad, Kamal. 2002. *Dictionnaire des racines berbères (formes attestées)*. Vol. 3: *D–G&Y*. Leuven: Peeters.
- O'Rourke, Erin. 2005. *Intonation and language contact: A case study of two varieties of Peruvian Spanish*. Urbana-Champaign: University of Illinois. (Doctoral dissertation).
- Ondráčková, Zuzana. 2010. *Komparatívny výskum detskej lexiky*. Prešov: Prešovská University.
- Piccitto, Giorgio (ed.). 1977. *Vocabolario siciliano*. Vol. 1: *A–E*. Catania: Centro di Studi Filologici e Linguistici Siciliani.
- Ritt-Benmimoun, Veronika. 2014. *Grammatik des arabischen Beduinendialekts der Region Douz (Südtunesien)*. Wiesbaden: Harrassowitz.
- Russi, Cinzia. 2008. *Italian clitics: An empirical study*. Berlin: Mouton de Gruyter.
- Saade, Benjamin. 2019. Assessing productivity in contact: Italian derivation in Maltese. *Linguistics* 57(1).

- Sammut, Carmen. 2007. *Media and Maltese society*. Plymouth: Lexington Books.
- Sciriha, Lydia & Mario Vassallo. 2006. *Living languages in Malta*. Malta: Print IT Printing Services.
- Seifart, Frank. 2015. Direct and indirect affix borrowing. *Language* 91. 511–532.
- Seifart, Frank. 2017. Patterns of affix borrowing in a sample of 100 languages. *Journal of Historical Linguistics* 7. 389–431.
- Sokoloff, Michael. 2002. *A dictionary of Jewish Babylonian Aramaic of the Talmudic and Geonic periods*. Ramat Gan: Bar Ilan University Press.
- Souag, Lameen. 2013. *Berber and Arabic in Siwa (Egypt): A study in linguistic contact*. Cologne: Rüdiger Köppe.
- Souag, Lameen. 2017. Clitic doubling and language contact in Arabic. *Zeitschrift für Arabische Linguistik* 66. 45–70.
- Souag, Lameen. 2018. Berber etymologies in Maltese. *International Journal of Arabic Linguistics* 4(1). 190–223.
- Spagnol, Michael. 2011. *A tale of two morphologies: Verb structure and argument alternations in Maltese*. Konstanz: Universität Konstanz. (Doctoral dissertation).
- Stolz, Thomas. 2003. Not quite the right mixture: Chamorro and Malti as candidates for the status of mixed language. In Yaron Matras & Peter Bakker (eds.), *The mixed language debate: Theoretical and empirical advances*, 271–315. Berlin: De Gruyter Mouton.
- Sutcliffe, Edmund. 1936. *A grammar of the Maltese language: With chrestomathy and vocabulary*. Oxford: Oxford University Press.
- Taine-Cheikh, Catherine. 2011. Numerals. In Lutz Edzard & Rudolf de Jong (eds.), *Encyclopedia of Arabic language and linguistics*, online edn. Leiden: Brill.
- Ullmann, Manfred. 1989. *Adminiculum zur Grammatik des klassischen Arabisch*. Wiesbaden: Harrassowitz.
- University of Zaragoza (ed.). 2013. *A descriptive and comparative grammar of Andalusí Arabic*. Leiden: Brill.
- Van Coetsem, Frans. 1988. *Loan phonology and the two transfer types in language contact*. Dordrecht: Foris.
- Van Coetsem, Frans. 2000. *A general and unified theory of the transmission process in language contact*. Heidelberg: Winter.
- Vanhove, Martine. 1993. *La langue maltaise: Etudes syntaxiques d'un dialecte arabe «périphérique»*. Wiesbaden: Harrassowitz.
- Vanhove, Martine. 1998. De quelques traits pré-hilaliens en maltais. In Jordi Aguadé, Patrice Cressier & Ángeles Vicente (eds.), *Peuplement et arabisation au Maghreb occidental: Dialectologie et histoire*, 97–108. Zaragoza: Casa de Velázquez.

- Vassalli, Michelantonio. 1791. *Mylsen phoenico-punicum sive grammatica melitensis*. Rome: Antonio Fulgoni.
- Vella, Alexandra. 1994. *Prosodic structure and intonation in Maltese and its influence on Maltese English*. Edinburgh: University of Edinburgh. (Doctoral dissertation).
- Vella, Alexandra. 2003. Language contact and Maltese intonation: Some parallels with other language varieties. In Kurt Braunmüller & Gisella Ferraresi (eds.), *Aspects of multilingualism in European language history*, 261–283. Amsterdam: John Benjamins.
- Vella, Alexandra. 2009. On Maltese prosody. In Bernard Comrie, Ray Fabri, Elizabeth Hume, Manwel Mifsud, Thomas Stolz & Martine Vanhove (eds.), *Introducing Maltese linguistics*, 47–68. Amsterdam: John Benjamins.
- Versteegh, Kees. 2014. Pidgin verbs: Infinitives or imperatives. In Isabelle Buchstaller, Anders Holmberg & Mohammad Almoaily (eds.), *Pidgins and Creoles beyond Africa–Europe encounters*, 141–170. Amsterdam: John Benjamins.
- Woidich, Manfred. 2006. *Das Kairenisch-Arabische: Eine Grammatik*. Wiesbaden: Harrassowitz.
- Zagona, Karen. 2002. *The syntax of Spanish*. Cambridge: Cambridge University Press.
- Zammit, Martin R. 2014. The Sfaxi (Tunisian) element in Maltese. In Albert Borg, Sandro Caruana & Alexandra Vella (eds.), *Perspectives on Maltese linguistics*, 23–44. Berlin: Akademie Verlag.