The verbal morphology of Maltese

From Semitic to Romance

Robert D. Hoberman and Mark Aronoff

Introduction

Linguists at least since de Saussure have made a fundamental distinction between the diachronic, historical dimension of language and the synchronic, structural dimension. Yet even after all this time, linguists sometimes confuse the two dimensions, and no more so than in the classification of languages. The diachronic classification of languages into families whose members are related to one another historically is often used in making structural statements of the sort that, strictly speaking, belong to structural typology. For example, the Dravidian language family of South India is sometimes said to be morphologically agglutinative and verb-final; all the Eskimo languages are said to be polysynthetic; and Bantu languages are cited for their complex systems of nominal agreement classes. Perhaps best known of all, because the trait is so uncommon, is the association of the Semitic language family (or more properly the Semitic branch of Afro-Asiatic) with what has come to be called root-and-pattern morphology, a type of morphology in which, at least within the indigenous tradition of Arabic and Hebrew grammar, a word is described as consisting of a combination of a lexical consonantal root and a specific vowel pattern or vocalism arranged within a fixed prosodic pattern (sequence of syllables of fixed types, including consonant and vowel length), with the vowels being inserted between the consonants to mark various morphological categories. This peculiar sort of morphology may also be viewed, in more traditionally Western terms, as an extreme form of ablaut (also known as apophony), which is the systematic changing of vowels in a stem to mark morphological categories. This would make it a remote structural relative of the kind of morphology that we see in Germanic languages in the tenses of strong (i.e. irregular) verbs, as for example in English *ride* versus *rode*.

However it is to be characterized theoretically, root-and-pattern morphology has become so closely identified with Semitic languages that one may be led to

suspect that this peculiar sort of morphology is their defining trait, a pervasive spirit of Semitic languages, akin to what Sapir (1921) labeled (somewhat misleadingly) *drift* . But of course, the defining trait of Semitic languages cannot be structural, but is rather simply their historical relation to one another. The fact that all Semitic languages exhibit this type of morphology is a historical fact which provides reasonable grounds for believing that the parent Proto-Semitic language of some five thousand years ago must also have had root-and-pattern morphology. To the extent that we find something like this kind of morphology in the other subfamilies of Afro-Asiatic, such as Cushitic and Berber, we may perhaps even conclude that an even remoter ancestor language had root-and-pattern morphology. But from a structural typological point of view, the fact that these languages all share a certain peculiar sort of morphology should be purely accidental, the result of their all having descended from the same language, unless we subscribe to Sapir's view.

There is evidence from Modern Aramaic that might lead one to believe in the kind of pervasive structural tendencies that Sapir pointed to. The verbal system of some Modern Aramaic languages has been completely restructured over the last two millennia (Hoberman 1989). Nonetheless, it remains true to root-and-pattern morphology, although the patterns themselves are completely distinct in their morphosyntactic functions from those of the historically earlier stages of the language such as Biblical Aramaic and Syriac. From this change, which preserves the inner essence but retains none of the outer shell, one might conclude that the abstract property of having root-and-pattern morphology has persisted through the history of the language, and such persistence would be very surprising without some kind of systematic structural support.

In speaking of the persistence of root-and-pattern morphology of verbs in Semitic languages we are speaking mainly of the derivational processes that relate different verbal lexemes containing the same root, and also of differences of tense. In Hebrew for example, the derivational relationships among *yixtov* 'he will write', *yaxtiv* 'he will dictate', and *yikatev* 'it will be written' are not (synchronically) affixal but involve changes in patterns, and even where prefixes occur pattern changes are also involved: *katav* 'he wrote', *hixtiv* 'he dictated', *nixtav* 'it was written'. The same is true of the tense and mood differences among *yixtov* 'he will write', *katav* 'he wrote', *kotev* 'he writes', and *ktov* 'write (imperative)'. On the other hand inflection for person, number, and gender is, and always has been, accomplished through prefixes and suffixes. To a greater or lesser extent the same is true for all other Semitic languages.

Our study of Maltese verbal morphology, however, points in a direction opposite to that suggested by the Modern Aramaic we mentioned above. As we will show here, Maltese verbal morphology — especially derivation but also tense marking — although it may superficially appear to be of the root-and-pattern sort

and has previously been described as such, is in fact not. Maltese may contain relics of root-and-pattern morphology, but its productive verbal morphology is decidedly affixal. So at least one modern Semitic language has lost this defining characteristic, providing evidence that the typological characterization of Semitic languages as having root-and-pattern morphology for some (admittedly unspecified) structural reasons is probably incorrect, leaving us with the much less interesting conclusion that Semitic is no different from any other language family: to the extent that members of a family share some peculiar trait, it is purely an accident of history and not the result of the passing down of some abstract quasi-genetic property like drift.

Our definition of root-and-pattern morphology is quite restricted. In particular, we want to distinguish root-and-pattern morphology from templatic morphology, in which affixes occur in a fixed order, sometimes unmotivated from a syntactic or semantic point of view (Lounsbury 1953). The verbal patterns of Semitic languages impose not merely rigid affix order, but also very rigid conditions on the internal structure of the innermost verb stem, abstracting away from all affixes. Each verb *theme* (we use this term as equivalent to the Hebrew term *binyan*) consists of an inner stem with fixed vocalism and a fixed prosody, surrounded by fixed affixes (if they are present), and in some cases different prosodies and vocalisms in different tenses, aspects, or moods. Consonantal roots are fitted to these complex patterns. This is true of modern as well as classical Semitic languages and the patterns govern the shapes of borrowings quite rigidly even in languages like Modern Hebrew. Maltese appears at first to have Semitic-style verb patterns of this sort and has been described in these terms (e.g. by Aquilina 1959, 1965), but the language, paradoxically it seems, also has a very large number of verbs borrowed almost intact from Romance (Sicilian and Italian) and more recently from English that fall outside these patterns. Such intact borrowing of verbs is not permitted in the well-studied modern Semitic languages. In Modern Hebrew or Standard Arabic, for example, while it is perfectly possible to borrow nouns intact (e.g. *telefon*), verbs must follow the patterns dictated by the morphological patterns of the language's verbal morphology, giving us the Modern Hebrew verb *tilfen* in the CiCeC theme or the Standard Arabic verb *talfana*. Neither language allows verbs to retain the prosody (especially the number of syllables) and vocalism of the source noun in violation of native verbal canonical patterns, as would be the case in such non-existent Hebrew forms as **telefon/jetelefon* 'he phoned/will phone' or non-existent Standard Arabic **tilifu:na/jutilifu:nu* 'he phoned/phones' (though such forms do occur in the jocular slang of highly educated speakers of Moroccan Arabic).[1]

We will show that Maltese verb formation is in fact not of the normal Semitic root-and-pattern type, with the result that the borrowed verbs are not unexpected. In particular, the restrictions on vocalism in Maltese are much less rigid than

those in other Semitic languages and the vocalisms of derived verbs are dependent on the base of the derived forms in a way that is unusual in Semitic but normal outside it. The prosodic shapes of derived verbs are also quite free. This is what permits the massive borrowing.

At the same time, most Romance and English borrowed verbs in Maltese have their own quite peculiar morphological pattern imposed on them that makes them recognizable as borrowings. Maltese verb morphology thus lies somewhere between the full root-and-pattern type that is common in Semitic and what we otherwise think of as normal: borrowed verbs fall quite rigidly into patterns that are fairly arbitrary and language-particular, but these patterns involve affixation rather than roots, vocalisms, and prosodies.

Maltese as a Semitic language

Maltese is historically and genetically an Arabic dialect. Malta was under Muslim rule from 870 to 1090 and the population remained substantially Muslim until about 1250. Since about 1300, however, there has been very little contact with the Arab world, and Romance-speaking Europe has been the dominant political and cultural force in Malta; as a result, for instance, the Maltese people are Roman Catholics, and write their language with a version of the Roman alphabet. For these and similar reasons a sociolinguist might argue that Maltese has by now lost its status as a variety of Arabic, but we are talking about its origins and its structure, which remains very much within the Arabic type. It is striking and somewhat puzzling that a little over two hundred years of Muslim rule was sufficient to replace whatever language or languages had previously been spoken in Malta with Arabic, while the last seven hundred years have not seen that language supplanted by Sicilian or Italian.

We will cite Maltese data in Maltese orthography, which represents the phonemic structure of the language rather well except for vowel quantity, which is mostly not indicated. The following Maltese letters have the sound values indicated in IPA symbols: *č*[tʃ], *ġ*[dʒ], *q*[ʔ], *x*[ʃ], *ż*[z], *z*[ts]; *ħ* and *j* have their IPA values, respectively a voiceless pharyngeal fricative and a palatal semivowel; *h* is silent or [ħ], depending on environment; *ie* is [iɐ] or [ɪː], derived in most instances from Old Arabic *ⁿaː*; and *għ* represents an underlying morphophoneme which lengthens adjacent vowels. For more information on Maltese phonology and orthography see Borg (1997).

Maltese morphology is unmistakably Arabic. Thus, broken noun plurals are common (*ktieb*, pl. *kotba* 'book'; *dar*, pl. *djar* 'house') and productive, applying to borrowed words (*forma*, pl. *forom* 'form, verbal theme'; *serp* 'snake', pl. *sriep*; *kamra* 'room', pl. *kmamar*). There are the familiar prefixed and unprefixed verb

conjugations for imperfect and perfect, respectively. Pronominal possessive and object suffixes function in the usual ways (*ruħ-na* 'our soul'; *riġl-ek* 'your [sg.] leg'; *qalb-ha* 'her heart'; *jiddawnlowdja-h* 'he downloads it'; *niftaħ-hom* 'I open them'; *niftaħ-hom-lok* 'I open them for you [sg.]').

Maltese phonology has undergone many changes from the Classical Arabic pattern, but is still recognizably vernacular Arabic. Segmental phonemes include /ħ/ and /ʔ/ (as in many Arabic dialects this /ʔ/ is a reflex of Old Arabic *q, not *ʔ), and rural, non-standard Maltese has pharyngealized phonemes (vowels, not consonants). Both vowels and consonants may be long or short, and stress is conditioned by syllable weight. The article (*i*)*l-* is assimilated to following coronal consonants. Initial two-consonant clusters are quite free (*ġbin* 'forehead'; *mtira* 'furrow'; *lbies* 'dress'). Maltese surface syntax, too, is recognizably Arabic: the construct state is quite widely used; the article is copied before adjectives; there is no present-tense copula; the basic word order is SVO; the relativizer (*il*)*li* is invariant.

Moreover, Maltese shares many of the innovations which are widespread in vernacular Arabic dialects. The themes (conjugation classes) are essentially those of vernacular Arabic; these will be discussed below. Finally, Maltese has specifically vernacular Arabic lexical items, such as *ġab* 'bring'. Ferguson (1959) listed fourteen structural features, most of them morphological but some phonological and syntactic, which are not a characteristic of Classical Arabic but are found in the majority of Arabic dialects throughout the Arabic-speaking territory. While Ferguson's idea that the shared features show that these dialects originated in the early Islamic period in a spoken Arabic koine has been largely rejected by Arabists, the list can still serve as an inventory of innovations which help define the modern Arabic vernacular vis-à-vis Classical Arabic. Of these fourteen features Maltese shares twelve; one cannot be demonstrated because it has been obscured by phonological changes; and only one of the fourteen, the replacement of Classical Arabic *raʔa:* 'see' by *ša:f,* is definitely absent in Maltese (Maltese has *ra* 'see'). Two of the most striking of Ferguson's morphological innovations that are evidenced in Maltese are these: numerals follow the vernacular Arabic pattern in having two forms: an absolute form suffixed with *-a* (*ħamsa* 'five') and a form lacking the suffix which appears when the number is followed by a counted noun (*ħames kotba* 'five books'); in verbs of the form $C_1aC_2C_2$, *-aj-* is inserted before consonant-initial suffixes (Maltese *radd* 'he restored', *radd-ej-na* 'we restored', to be compared with Classical Arabic *radd-a* 'he restored', *radad-na:* 'we restored').

We will use the terms "Semitic Maltese" to refer to the Maltese vocabulary and morphology derived from Arabic, "Romance Maltese" to refer to those derived from Sicilian and Italian, and "English Maltese" to refer to recent borrowings from English. The Maltese data we cite come from published sources on the language: Ambros 1998; Aquilina 1959, 1965, 1987, 1990; Borg and Azzopardi-Alexander 1997; Schabert 1976; the Colour Image dictionary (1998),

and especially Mifsud 1995, with the addition of a few items gleaned from Maltese World Wide Web pages.

Verbal themes in Semitic Maltese

The themes of Maltese are not like those of Classical Arabic. Maltese has fewer theme types than does Classical Arabic, and only a few of the Classical Arabic types are common in Maltese. This is typical of vernacular Arabic. In the following discussion the themes will be labeled with the Roman numerals that are conventional in descriptions of Classical Arabic, and verbs are cited in the third person masculine singular perfect (sometimes perfect and imperfect), but glossed with the English base form.

Active verbs come in the following themes: the basic type (Theme I, e.g. *ħadem* 'work', *niżel* 'go down'), the intensive with doubled middle radical (Theme II, e.g. *niżżel* 'bring down'), and the quadriliteral type (Theme QI, e.g. *bandal* 'swing'). As in most Semitic languages, the basic type is not normally used to derive verbs from other verbs. Passive/reflexive verbs are formed by prefixing *t-* or *n-*, yielding the following themes: type V, the *t*-prefixed passive of II (e.g. *t-niżż el* 'be brought down'); type VII, the *n*-prefixed passive of I (e.g. *in-qabad* 'be caught', from *qabad* 'catch'); and QII, the *t*-prefixed passive of QI (e.g. *t-bandal* 'be swung'). The remaining themes are less common (III, VI, IX), limited to a few verbs (VIII, X), or absent (IV).

In Classical Arabic and most modern Semitic languages, including even Modern Hebrew, every theme template consists of a syllable structure or prosody, perhaps a prefix or infix, and a specific vocalism. (We disregard here the suffixes marking inflection for person, number, and gender.) For all but the basic Theme I, these languages allow for each theme only a single vocalism (which may vary between the templates of prefixed and unprefixed tenses); for example, all Theme II verbs have the same vocalism. The vowels of the Semitic Maltese theme templates, unlike those of Classical Arabic, are not fixed. Each theme allows several different vowel patterns, and Theme I allows many. "In the course of its development from O[ld] Ar[abic], M[altese] has developed a vast range of vowel patterns, richer than that of O. Ar. both in variety and distribution. This richness is basically the product of historical phonological constraints operating on the structures of the language, whether nominal or verbal, irrespective of morphological categories" (Mifsud 1995:65). In part this large variety of vowel patterns arose through the loss of the Arabic phonological opposition of emphatic (pharyngealized or velarized) versus plain consonants. In Arabic, a vowel adjacent to an emphatic consonant will have a back allophone, while next to plain consonants vowels have front allophones, so that, for instance, the distinction [s¢A¢] versus

[sǐ] is phonemicly /s¢a/ versus /sa/. When the consonantal opposition was lost in Maltese the vowel allophones became separate phonemes, and sequences like these were reinterpreted as respectively /sa/ versus /se/. Most often, then, verbs will have *a* in Maltese if there was a back consonant in the environment in Old Arabic, and *e* otherwise. Through this and other phonological and morphological changes as well as borrowings from Sicilian and Italian the restrictions on possible vowel patterns have loosened. In Theme I, vowel patterns of the perfect are *aa, ae, ea, ee, ie, oo*, and with vowel-final stems also *oa* (*qasam* 'break', *ħare* 'go out', *qered* 'destroy', *kiser* 'break', *qorob* 'get near', *għola* 'go high'). Vocalisms in Maltese can be lexically distinct: *sella* 'greet' vs. *salla* 'imprecate'; *faddal* 'collect' vs. *feddel* 'tame'; *rema* 'throw away' vs. *rama* 'set up'.

In Imperfects, the first (prefix) vowel is partly determined by phonological factors, in particular the adjacent consonants, while the second (stem) vowel is generally the same as that of the perfect: *ħataf jaħtaf* 'snatch', *daħak jidħak* 'laugh', *qabel jaqbel* 'agree', *ħeles jeħles* 'deliver', *fetaħ jiftaħ* 'open', *resaq jersaq* 'approach', *nióel jinóel* 'descend', *xorob jixrob* 'drink', *ħolom joħlom* 'dream', *fehem jifhem* 'understand' (this type all seem to be *ChC*, where *h* is silent.). In some cases, however, perfect *-a-* may go to imperfect *-o-*: *daħal jidħol* 'enter', *maxat jomxot* 'comb', *żelaq jiżloq* 'slip', *nefaq jonfoq* 'spend'; in just three verbs perfect *-e-* goes to imperfect *-o-*: *ħareġ joħro* 'go out', *qatel joqtol* 'kill', *siket jiskot* 'be silent' (Aquilina 1965:142, 144).

Although Maltese has five short vowels and each verb stem has two vowels, there are not twenty-five (5×2) different stem types but only seven. This looks as though there were a set of stem templates, as are familiar in Arabic and other Semitic languages, imposed on the set of verbs. This is a relic of the earlier history of the language: the imposition of stem templates may have been true at an earlier stage but is not active synchronically in modern Maltese. Similarly, ablaut is vestigial in Maltese, the main relic of the historical system of ablaut being the alternation of perfects in *a* with imperfects in *o*. This is unlike the ablaut system in Classical Arabic, where there are many patterns of alternation, some of them frequent and some quite limited in distribution. In Maltese, a number of verbs in Theme I, but no other themes, must be specified as undergoing ablaut, which will always be $a \rightarrow o$ or, in three items, $e \rightarrow o$.

Theme II is defined by the syllable structure CVCCVC, and the vowel possibilities are *ee, aa, ae, ea, ie*; the vowels of the imperfect are the same as those of the perfect (*ġedded i ġedded* 'renew', *qassar iqassar* 'shorten', *nebbaħ inebbaħ* 'draw attention to', *qaddem iqaddem* 'make old', *kisser ikisser* 'smash'). The remaining themes will not be discussed here, because they exhibit no fundamental properties that cannot be seen in Themes I and II.

In Arabic a derived verb takes on the vowel pattern imposed by its theme, losing the vowels of the base verb, noun, or adjective: *d¢aħħaka jud¢aħħiku* 'make

someone laugh' from *d¢aħika jad¢ħaku* 'laugh', *maddana jumaddinu* 'build cities, civilize' from *madi:na* 'city', *Varbala juVarbilu* 'to sift' from *Virba:l* 'sieve'. This is not so in Maltese: derived verbs normally retain the vowel pattern of their base verb, noun, or adjective, regardless of the normal vowel pattern of their theme.

> *i > i* (no change)
> *niżel* 'descend'   *niżż el* 'cause to descend'
> *kiser* 'break' *kisser* 'smash'
>
> *e > e* (no change)
> *xemx* 'sun'   *xemmex* 'expose to sun'
>
> *a > a* (no change)
> *daħak* 'laugh'   *daħħak* 'make someone laugh, amuse'
> *baħar* 'sea'   *baħħar* 'navigate'
> *sabar* 'bear with patience'   *sabbar* 'console'

In some cases the base vowels are not retained. In all such cases the change is from a higher vowel in the base to a lower vowel in the derived verb: the derived form shows lowering following the hierarchies *i > e > a* and *o > a*. The vowels *o* and *u* do not occur in verbs of themes other than I, so all verbs derived from bases with *o* or *u* must show vowel lowering or fronting.

> *i > e*
> *firex* 'spread'   *ferrex* 'scatter'
> *ġdid* 'new'   *ġedded* 'renew'
> *dilek* 'smear'   *dellek* 'cause to smear'
> *iebes* 'hard'   *webbes* 'harden'
>
> *i > a*
> *sadid* 'rust'   *saddad* 'cause to get rusty'
> *tqil* 'heavy'   *taqqal* or *taqqel* 'make heavy'
> *qasir* 'short'   *qassar* 'shorten'
> *saddieq* 'just'   *saddaq* (also *seddaq*) 'make just'
>
> *e > a*
> *siker* 'get drunk'   *sakkar* 'cause to get drunk'
>
> *o > a* or *e*
> *ħolom* 'dream'   *ħallem* 'cause to dream'
> *boloq* 'grow old'   *bellaq* 'ripen'
> *ħoxba* 'beam'   *ħaxxeb* 'make thick and long'
> *għoxa* 'faint'   *għaxxa* 'cause to faint'
> *għola* 'rise (price)'   *għalla* 'raise (price)'

Thus in no case does the derivational process involve the replacement of the vowels of the base by vowels imposed by the theme, which is what happens in Arabic and other Semitic languages.

Before examining the ways in which the Maltese verbal system assimilates Romance and English borrowings we need to look at the Semitic Maltese system of verbal inflection. The following are paradigms of the three most common types of consonant-final Semitic Maltese verbs.

	Theme I (*kiser*)	Theme II (*kisser*)	Theme QI (*qarben*)
	'break'	'shatter, crush'	'give communion'
Perfect			
sg 1	*ksirt*	*kissirt*	*qarbint*
sg 2	*ksirt*	*kissirt*	*qarbint*
sg 3m	*kiser*	*kisser*	*qarben*
sg 3f	*kisret*	*kissret*	*qarbnet*
pl 1	*ksirna*	*kissirna*	*qarbinna*
pl 2	*ksirtu*	*kissurtu*	*qarbintu*
pl 3	*kisru*	*kissru*	*qarbnu*
Imperfect			
sg 1	*nikser*	*nkisser*	*nqarben*
sg 2	*tikser*	*tkisser*	*tqarben*
sg 3m	*jikser*	*jkisser*	*jqarben*
sg 3f	*tikser*	*tkisser*	*tqarben*
pl 1	*niksru*	*nkissru*	*nqarbnu*
pl 2	*tiksru*	*tkissru*	*tqarbnu*
pl 3	*jiksru*	*jkissru*	*jqarbnu*
Imperative			
sg	*ikser*	*kisser*	*qarben*
pl	*iksru*	*kissru*	*qarbnu*

Maltese has a class of of vowel-final stems. In Classical Arabic or other Semitic languages these might be analyzed as resulting from the loss of weak final consonants *j* and *w*, but we assume a concrete analysis in which these consonants are absent at all levels of representation and we refer to these verbs as vowel-final. These stems have three conjugation types that are different from the conjugation of verbs whose stems are consonant-final. In the Perfect all vowel-final verbs end in *-a* in the unsuffixed third person masculine singular, but in the suffixed gender/number/person forms there are two types: those with the front vowels *-e-* or *-ie-* and those with *-a-*; we will label these with the first-person singular endings, as the *-ejt* and *-ajt* types respectively. In the Imperfect there are also two types, *i*-final and *a*-final. The absence of verbs with *-ajt* in the perfect and *–i* in the imperfect

leaves three types, exemplified below with *bena* 'build', *nesa* 'forget', and *dara* 'get used to'. Examples of Theme II and Theme QI verbs are also included. All vowel-final verbs in Theme II and QI have *-ejt* in the perfect and *–i* in the imperfect. This is so even when derived from Theme I verbs with imperfects ending in *-a*: *sewwa isewwi* 'repair, rectify' < *sewa jiswa* 'be useful, permitted, suitable', *nissa inissi* 'cause to forget' < *nisa jinsa* 'forget'.

Paradigms of vowel-final Semitic Maltese verbs:

	Theme I *ejt*/*i*-final (*bena*) 'build'	Theme I *ejt*/*a*-final (*nesa*) 'forget'	Theme I *ajt*/*a*-final (*dara*) 'get used to'	Theme II (*ħalla*) 'leave'	Theme QI (*fisqa*) 'swaddle'
Perfect					
sg 1	*bnejt*	*nsejt*	*drajt*	*ħallejt*	*fisqejt*
sg 2	*bnejt*	*nsejt*	*drajt*	*ħallejt*	*fisqejt*
sg 3m	*bena*	*nesa*	*dara*	*ħalla*	*fisqa*
sg 3f	*bniet*	*nsiet*	*drat* /	*ħalliet*	*fisqiet*
pl 1	*bnejna*	*nsejna*	*drajna*	*ħallejna*	*fisqejna*
pl 2	*bnejtu*	*nsejtu*	*drajtu*	*ħallejtu*	*fisqejtu*
pl 3	*bnew*	*nsew*	*draw*	*ħallew*	*fisqew*
Imperfect					
sg 1	*nibni*	*ninsa*	*nidra*	*nħalli*	*nfisqi*
sg 2	*tibni*	*tinsa*	*tidra*	*tħalli*	*tfisqi*
sg 3m	*jibni*	*jinsa*	*jidra*	*jħalli*	*jfisqi*
sg 3f	*tibni*	*tinsa*	*tidra*	*tħalli*	*tfisqi*
pl 1	*nibnu*	*ninsew*	*nidraw*	*nħallu*	*nfisqu*
pl 2	*tibnu*	*tinsew*	*tidraw*	*tħallu*	*tfisqu*
pl 3	*jibnu*	*jinsew*	*jidraw*	*jħallu*	*jfisqu*
Imperative					
sg	*ibni*	*insa*	*idra*	*ħalli*	*fisqi*
pl	*ibnu*	*insew*	*idraw*	*ħallu*	*fisqu*

Romance Maltese verbs and their classes

Almost all Romance Maltese verbs are placed in one of two Maltese vowel-final categories, *ejt*/*i*-final and *ajt*/*a*-final variant, in Theme II or QI (recall that derived verbs rarely go into Theme I). The inflectional affixes of the perfect and imperfect are identical to those of Semitic Maltese. Paradigms follow.

	Theme II i-final Italian *fallire* 'be absent'	Theme QI a-final Italian *cantare* 'sing'

Perfect

	Theme II	Theme QI
sg 1	*fallejt*	*kantajt*
sg 2	*fallejt*	*kantajt*
sg 3m	*falla*	*kanta*
sg 3f	*falliet*	*kantat*
pl 1	*fallejna*	*kantajna*
pl 2	*fallejtu*	*kantajtu*
pl 3	*fallew*	*kantaw*

Imperfect

	Theme II	Theme QI
sg 1	*nfalli*	*nkanta*
sg 2	*tfalli*	*tkanta*
sg 3m	*jfalli*	*jkanta*
sg 3f	*tfalli*	*tkanta*
pl 1	*nfallu*	*nkantaw*
pl 2	*tfallu*	*tkantaw*
pl 3	*jfallu*	*jkantaw*

Imperative

	Theme II	Theme QI
sg	*falli*	*kanta*
pl	*fallu*	*kantaw*

A large number of verbs of Romance origin have syllable structures similar to those of Maltese verbs of Arabic origin. For example, *kanta* has the same syllable structure as *fisqa*. Romance verbs of this group are those which Mifsud (1995) refers to as "R[omance] M[altese] verbs of type A", assimilated borrowings. These have not only syllable structures like those of Semitic Maltese verbs but also vowel sequences which are found in Semitic Maltese verbs: the vowels of *kanta* exists in Semitic Maltese *saffa* 'clarify, filter', and that of Semitic Maltese *fisqa* is mimicked by Romance Maltese *pinġa* 'paint'. As Mifsud points out, "A striking fact . . . is that the range of vowel sequences obtained in R[omance] M[altese] verbs of type A [assimilated borrowings] lies strictly within the limits of the traditional M vocalization; indeed the variation displayed by loan verbs within each verbal theme is regularly more restricted than that of S[emitic] M[altese] verbs" (Mifsud 1995:65) Mifsud's implicit claim is that Maltese first borrowed those Romance verbs which matched the existing Semitic patterns and he calls these assimilated borrowings. Whether this was actually the case historically may be interesting, but it is not our concern. The fact is that many other verbs of Romance origin in modern Maltese have syllable structures and vowel sequences that are not found

in Maltese verbs of Arabic origin: *iffronta* 'face a situation', *stabilixxa* 'establish', *iffjorixxa* 'prosper'. In fact, there are no morphological restrictions on the syllable structure or vowel patterns of these verbs, no restrictions other than the phonological restrictions on syllable structures and vowels that apply throughout Maltese. The fact that these verbs are lexically numerous and appear frequently in texts, amounting to over two percent of all verbs appearing in journalistic Maltese (Fenech 1978: 133–5, 140), shows that this is not a marginal phenomenon, but rather a productive part of the structure of Maltese. If Mifsud's claim is historically correct, then at some point in the history of Maltese one could borrow only those Romance verbs which matched some already existing Semitic Maltese verbs. This is clearly no longer true.

Romance Maltese verbs differ from Semitic Maltese verbs in five ways:

1. All Romance Maltese *a*-final verbs (the larger class) have *-ajt* in the perfect, though *-ajt* perfects are few in number in the Semitic Maltese vocabulary. Thus the Romance Maltese *a*-final class is more symmetrical than the Semitic Maltese *a*-final class: most *a*-final Semitic Maltese verbs fall together with the *i*-final class in the perfect in having front-vowel endings like *-ejt*, but in Romance Maltese *a*-final imperfects have back-vowel endings in the perfect too. In other words, in Romance Maltese a verb has either front-vowel endings in the perfect and imperfect, or back-vowel endings in the perfect and imperfect, and the final vowel of the stem is recoverable directly from both perfect and imperfect stems. There is no syncretism in the perfect between *a*-final and *i*-final Romance Maltese verbs. This symmetry is demonstrated in Tables 1 and 2. The symbol (+) indicates that there are only a few verbs with *-ajt* in the perfect and *-a* in the imperfect.

2. The restrictions on syllable onsets in Romance Maltese are those of Italo-Romance, allowing stem-initial three-consonant sequences (while in Semitic Maltese the initial clusters in items like *stħarreġ* 'inquire' and *stkerrah* 'hate' occur only with the derivational prefix *st-*, and other three-consonant clusters may arise as a result of syncope in suffixed forms, as in *jikser/jiksru* 'he/they break', *jqarben/jqarbnu* 'he/they give communion') and *Cj* clusters:

– *jiskrupla* 'have scruples'; *jisplodi* 'explode'; *jiskonġra* 'exorcise'; *jiżbrana* 'tear to pieces'; *jisfratta* 'turn over'; *jinkludi* 'include'; *jordna* 'order'; *jikkmanda* 'command'
– *jimpjega* 'employ'; *jiffjorixxi* 'blossom'

3. While Semitic Maltese verb stems comprise no more than two syllables, there appear to be no restrictions on the number of syllables in a Romance Maltese verb stem:

1 syllable: *ji**ppost**ja* 'post'; *ji**kkop**ja* 'copy'
2 syllables: *jizvi**luppa***
*jistandar**dizza***

j**abdik**a 'abdicate'; *jiskomoda* 'inconvenience'; ji**żvilupp**a 'develop'
3 syllables: *jalimenta* 'nourish'; *jistandardizza* 'standardize', ji**kkoàgul**a 'coagulate'
4 syllables: ji**ppopolarizz**a 'popularize'; *japprofondixxa* 'deepen', *jippersonìfika* 'personify'

Jikkoàgula further deviates from Semitic Maltese patterns in having antepenultimate stress and adjacent vowels (which occur in Semitic Maltese only in specific morphological contexts). In these features it is not unique among Romance Maltese verbs.

4. Many Romance Maltese verbs have a geminate-initial stem:
– Romance Maltese verbs with a single initial consonant in Italo-Romance generally show gemination: *jiffirma* 'sign'; *jirrispetta* 'respect'; *jissodisfa* 'satisfy'.
– Romance Maltese verbs with an initial consonant-sonorant cluster in Italo-Romance show gemination: *jibbrilla* 'glitter'; *jivvjaġġ a* 'travel'; *jikkmanda* 'command'.
– Romance Maltese verbs with sibilant-initial clusters do not show gemination: *jiskomoda* 'inconvenience'; *jiżbilanċja* 'unbalance'.

This is quite a different phenomenon from the copying (or spreading or reduplication) of a root consonant to fill more than one root slot, as in Hebrew *mamaʃ* 'really', *savav* 'he circled', *fikses* 'he faxed'. The historical origin of this Maltese initial gemination is obscure. Initial gemination is widespread in Southern Italian and Sicilian dialects, with many and complex differences among the dialects. (This gemination should not be confused with *raddoppiamento sintattico*, the gemination of initial consonants after words ending in short stressed vowels, which occurs throughout Italian.) In some, but not all, Italo-Romance dialects, the initial geminate may be preceded by a prosthetic vowel. In Maltese there is always a prosthetic vowel before initial geminates unless the preceding word in the same phonological phrase ends in a vowel. The peculiarity of Maltese is that this initial gemination is restricted to verbs and becomes a general marker of borrowed verbs in particular.

The following are examples of initial gemination in Romance Maltese verbs, where the corresponding noun has no gemination.

Noun or adjective	Verb
faċilità 'ease, facility'	*iffaċilita* 'to facilitate'
dilettant 'amateur'	*iddiletta* 'to have a hobby'
differenti 'different'	*iddifferixxa* 'to differ'
divrenzja 'difference'	*iddivrenzja* 'to discriminate against'
rakkomandazzjoni 'recommendation'	*irrakkomanda* 'recommend'

sensja 'permission, discharge from a job'   *issensja* 'to discharge from work'
xalata 'picnic, revelry'   *ixxala* 'to enjoy oneself'

5. *-ixxa* verbs. In Italian, certain verbs have an <-isc> augment which is phonologically conditioned: it appears just in case stress would otherwise fall on the stem and has two forms [isk] and [iʃʃ], depending on the following vowel (Burzio and DiFabio 1994). It is important to note that not all verbs do this, only those that have an ⟨-isc⟩ augment. When these verbs are borrowed into Maltese, the [iʃʃ] form (never [isk]) is used under the exact same phonological condition that governs the use of both in Italian (as pointed out by Ambros 1998: 156), but with Maltese inflection: the augment appears just in case the suffix is not stressed, i.e. in just those cases where the stem would otherwise be stressed. In Italian verb morphology, stress is phonologically and morphologically conditioned; in Maltese, stress is phonologically conditioned, falling on the final syllable if it is extraheavy (CVCC or CV:C), otherwise on the penultimate syllable. Note that the condition governing the placement of [isk]/[iʃʃ] applies to different cells in the paradigms of the two languages. This is a case of borrowing a phonological condition on a morphological rule. Two paradigms follow, one in Italian and one in Maltese. We have added indications of stress in this table, though the orthography of neither language does. (The sequence [iʃʃ] is spelled ⟨isc⟩ before front vowels in Italian but ⟨ixx⟩ in Maltese.)

	Italian	Maltese
	suggerisco	*issuġġeri*
Perfect		
sg 1	*suggeríi*	*issuġġeréjt*
sg 2	*suggerísti*	*issuġġeréjt*
sg 3m	*suggerí*	*issuġġeríxxa*
sg 3f	–	*issuġġeríet*
pl 1	*suggerímmo*	*issuġġeréjna*
pl 2	*suggeríste*	*issuġġeréjtu*
pl 3	*suggerírono*	*issuġġeréw* [-éww]
Imperfect		
sg 1	*suggerísco*	*nissuġġeríxxi*
sg 2	*suggerísci*	*tisuggeríxxi*
sg 3m	*suggerísce*	*jisuggeríxxi*
sg 3f	–	*tisuggeríxxi*
pl 1	*suggeriámo*	*nisuggeríxxu*
pl 2	*suggeríte*	*tisuggeríxxu*
pl 3	*suggeríscono*	*jisuggeríxxu*

Imperative

| sg | *suggerísci* | *suggeríxxi* |
| pl | *suggeríte* | *suggeríxxu* |

When Maltese verb forms with -*ixx*- are further suffixed, entailing stress shift toward the end of the word, the -*ixx*- augment may be absent: *stabil-íxx-a* 'he established', *stabilíe-k* 'he established you'; *jistabil-ixx-a* 'he establishes', *jistabilí-ni* [jistabilí:ni] 'he establishes me', *jittradíxxi* 'he betrays', *ma jittradíx* or *ma jittra-dixxíx* (both [-í:ʃ]) 'he does not betray' (Aquilina 1959: 315, Ambros 1998: 156).

This comparison shows that while [iʃʃ] is present in both Italian and Maltese under the same circumstances — when stress would otherwise fall on the stem — this occurs in different tense/person/number combinations in the two languages. It is the rule that was borrowed, not the forms.

English Maltese verbs

There has been a tremendous influx of English borrowings into Maltese in the twentieth century. English nouns are often borrowed with little if any morphological modification. Verbs, however, fall into a single well-defined morphological class defined by two features:

Initial gemination where phonologically permissible (as described for Romance Maltese above);

Suffixation of *ja* to the verb stem, which results in all English Maltese verbs being placed in the *a*-final class.

Thus English *download* is borrowed into Maltese as *iddawnlowdja* (spotted on a Maltese World Wide Web site in 1998), with gemination of the initial *d* (and automatic prosthesis of *i*) and suffixation of *ja*, and these features are universal in Maltese verbs borrowed from English. English Maltese verbs thus fall into the most productive formal subclass of Romance Maltese verbs, those with -*ajt* in the perfect and -*a* in the imperfect. The following table gives two sample paradigms of English Maltese verbs.

	iddawnlowdja 'download'	aġġastja 'adjust'

Perfect

sg 1	*iddawnlowdjajt*	*aġġastjajt*
sg 2	*iddawnlowdjajt*	*aġġastjajt*
sg 3m	*iddawnlowdja*	*aġġastja*
sg 3f	*iddawnlowdjat*	*aġġastjat*

pl 1	*iddawnlowdjajna*	*aġġastjajna*
pl 2	*iddawnlowdjajtu*	*aġġastjajtu*
pl 3	*iddawnlowdjaw*	*aġġastjaw*

Imperfect

sg 1	*niddawnlowdja*	*naġġastja*
sg 2	*tiddawnlowdja*	*taġġastja*
sg 3m	*jiddawnlowdja*	*jaġġastja*
sg 3f	*tiddawnlowdja*	*taġġastja*
pl 1	*niddawnlowdjaw*	*naġġastjaw*
pl 2	*tiddawnlowdjaw*	*taġġastjaw*
pl 3	*jiddawnlowdjaw*	*jaġġastjaw*

Imperative

| sg | *iddawnlowdja* | *aġġastja* |
| pl | *iddawnlowdjaw* | *aġġastjaw* |

As Drewes puts it, verbs borrowed from English "are incorporated into the class of Italian loanwords originally ending in -*are.*" Like Romance Maltese verbs, English Maltese verbs take participle and infinitive endings of Italian origin: participles in in -*at*, fem. -*ata*, and infinitives in -*ar*. Drewes cites examples such as *ipparkjata* 'parked (fem.), *iddajvjar* 'to dive', *inxurjat* 'insured', *stokkjat* 'stocked' (Drewes 1994: 92–3).

Conclusions

Maltese is a concatenative language masquerading as a root-and-pattern language. The Semitic Maltese verb themes have inherited prosodies and restricted ranges of vowel patterns — though far less restricted than those of Arabic — but the synchronic, productive processes of verb derivation work by affixation, with no particular prosodic properties. The most productive verbal word formation pattern, using any of Baayen's (1992) measures of productivity, the one to which newly borrowed verbs assimilate, is morphologically unusual:

– It is a subclass of a subclass: it is has the characteristics of the back-vowel subclass of Romance Maltese verbs that derive from Italian verbs in -*iare*, which follows the -*ajt*/*a*-final conjugation which is relatively infrequent in Semitic Maltese.
– It is quite complex, involving both initial gemination suffixation of -*ja.*
– It operates on borrowings.

This suggests a question for further research: Is this productive pattern really restricted to English borrowings or does it operate in the formation of other

neologisms? One hint that it might lies in the fact that a few verbs derived from Semitic Maltese nouns have taken this form: Mifsud (1995:223) cites, among others, *iżżftja* 'to coat with tar' from Maltese (and Arabic) *żift* 'tar'. This should be tested directly with native speakers using standard psycholinguistic techniques of morphological investigation.

Notes

1. In modern Hebrew, borrowed verbs are made to fit into the native verbal templates, but while doing so some borrowed or derived verbs retain features of the source word in a way which cannot be accounted for through the mechanism of consonantal extraction and insertion into a binyan template. Thus the syllable structure and vocalism of the source word is retained in some slang verbs derived from borrowed words, such as *laxrop* 'sleep' from the noun *xrop*, *leʃnorér* 'beg' from *ʃnórer* 'beggar' and *lehaʃprits* 'spray' from *ʃprits* 'a splash', or occasionally even in verb derivation from native bases, as in the case of *ʔot* 'sign, alphabet letter', from which two verbs are derived: *ʔijet* 'spell' (retaining only the consonants of the base noun) and *ʔotet* 'signal' (retaining the stem vowel as well). These facts were pointed out to us by an anonymous reviewer, who referred us to a discussion of this phenomenon in Schwarzwald 2000, which we have not yet seen. The examples mentioned by the reviewer indeed violate native Hebrew prosodic templates in that they contain consonant clusters not found in inherited verbs, but they do not contain non-canonical vocalism (cf. the canonical verbs *laxtox* 'cut', *lesovev* 'circle', *lehakpits* 'cause to jump').

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Table 1. Types of Semitic Maltese vowel-final verbs

	Imperfect		
		-i	*-a*
Perfect	*-ejt*	+	+
	-ajt	–	(+)

Table 2. Types of Romance Maltese verb

	Imperfect		
		-i	*-a*
Perfect	*-ejt*	+	–
	-ajt	–	+