Chapter 10

Language change in Maltese English: The influence of age and parental languages

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In this study, which is based on questionnaire data collected in 2013 from 430 Maltese informants, we investigate ongoing language change in Maltese English. We concentrate on 63 pairs of lexical variants that are known to differ in usage between British English and American English (e.g. *vacation* vs. *holiday*). Overall, informants clearly tend towards BrE usage. Regardless of the statistical approach we adopt, our studies show consistently apparent-time trends towards a less exclusively British English usage in Malta, converging on a more globalized usage of lexical items, in particular among the youngest cohorts. This confirms trends reported for older Maltese English data (collected in 2008; see Krug 2015). While Age emerges as the most important factor in our data, lexical choices are also sensitive to the native languages of the informants' parents. When the mother's native language(s) includes English, the informants' lexical choices are biased in the expected direction, figuring in an increase in Britishness of the informants. Informants whose parents' L1 is neither English nor Maltese show the highest degree of linguistic globalization. Overall, the native language(s) of the mother appeared to be more influential than that of the father.

1 Introduction

Maltese and English are the two official languages in the Republic of Malta. Not surprisingly, therefore, bilingualism is widespread: In the *Census of Population*

and Housing 2005 (2012) (the latest census which collected such information), 88% of the population aged 10 and older, i.e. some 300,000 people living on the archipelago, reported to speak at least some English. With 93% of the population speaking Maltese as a first language (*ibid.*), English is a second language for the vast majority of speakers. Frequency of use and exposure to the English language vary considerably, however. About 9% of the population use English as the – or a – main language at home. As is often the case in places with a colonial history involving British rule, the varieties of English that are spoken in Malta represent in actual fact a continuum between an acrolectal variety (a near-RP pronunciation with a grammar and lexicon that is very similar to standard British English) on the one hand, and basilectal varieties on the other. The latter are characterized by typical EFL learner features and more structural parallels with Maltese, i.e. contact features, plus extensive code-switching.[1] In this contribution on lexical items usage, we will use the term "Maltese English" (or "MaltE", for short) to cover the entire continuum of varieties of English spoken and written in Malta.

In this study, which is based on questionnaire data from 430 Maltese informants collected in 2013, we investigate ongoing change in English language usage in Malta. In 2007 and 2008, pilot web-based studies and first questionnaire-based studies were carried out to empirically investigate the varieties of English in Malta and their relation to the major reference varieties of standard British and American English. In the present study, we will concentrate on data from 2013, which have not been subjected to statistical analysis to date. After an outline of the methodologies employed, §2 will present descriptive statistics, §3 inferential statistics. The first focus of our analysis will be apparent-time studies, i.e. the factor Informant Age. We shall also investigate closely the influence of participants' gender, the native language(s) of the mothers and fathers of the informants as well as interactions between these factors.

2 Methodology

For the statistical analyses presented in this paper, informants with more than one third missing answers in the questionnaire were excluded (*n* = 6), leaving a total of 424 informants for analysis. We concentrate on 68 pairs of lexical vari-

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[1]Compare the continuum described in Vella (1994), Bonnici (2010) and such notions as *mixed Maltese English*. Compare also the discussion of Maltese English and its relation to Schneider's (2007) model of postcolonial Englishes in Thusat et al. (2009), Bonnici et al. (2012) and Grech (2015).

ants using the *Bamberg questionnaire for lexical and morphosyntactic variation in English* (see Appendix for exemplification; Krug & Sell 2013 for methodological detail; Krug et al. forthcoming for the full questionnaire). Given a choice between two referentially synonymous items that are known to have differed in usage between British English (BrE) and American English (AmE) in the late 20th century (cf., e.g. Algeo 2006), informants select whether they always use one of the two variants, prefer one over the other, have no preference, or do not use any of them (see Figure 7 in the Appendix). For expository clarity, we will use expressions such as *pairs, binaries* and *British* vs. *American English usage*, although these are clearly simplifications. Some items have more than two alternatives, e.g. *dummy – pacifier – soother* (or *compare X with/to/and Y*).[2] Similarly, we simplistically use *BrE* (or *AmE*, as the case may be) when we refer to 'more British' (e.g. *backwards* vs. *backward*), 'exclusively British' (e.g. *-isation* spellings) or 'traditionally British' items (e.g. *lorry* vs. *truck*).

Items exceeding 20% missing cases (i.e. informants ticking that they use neither of the two variants offered) were excluded from the analysis (*n* = 5). These were *bicentenary/bicentennial, glocalis/zation, storm in a teacup/tempest in a teapot, laund(e)rette/laundromat,* and *a drop in the ocean/bucket.* Consequently, 63 items remain in the ensuing analysis.

The questionnaire data were converted from ordinal ratings into numerical values (cf. Rohrmann 2007; Agresti & Finlay 2009: 40 for translating ordinal into interval scales), with usage preferences ranging from −2 for exclusively AmE usage to +2 for exclusively BrE usage. For the statistical analysis of the questionnaire, the following values are assigned to the five possible answers:

- +2 if the informant reports consistent use of the (more) British variant;

- +1 if the informant reports more frequent use of the (more) British variant;

- 0 if the informant has no preference;

- −1 if the informant reports more frequent use of the (more) American variant;

- −2 if the informant reports consistent use of the (more) American variant;

- no entry if the informant claims to use neither of the two variants.

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[2] In the questionnaire, raters can add comments regarding their own preference and alternative terms in each case (see Figure 7 in the Appendix).

Automatic digitization was combined with extensive manual post-editing. The following analyses are based on the overall mean questionnaire score for each of our 424 informants, which may range from –2 to +2. To safeguard against distorted averages, we imputed missing item values based on the full set of informants' ratings. More specifically, we applied mean imputation adjusted by subject and item effects. That is, the imputed value for each cell reflected the overall tendency for the informant (with subjects showing an overall trend towards British usage receiving higher fill-in values) and item (with items showing bias towards the British variant receiving higher fill-ins). To this end, we ran a mixed-effects model (using the lme4 package in R, Bates et al. 2015) with subject and item as random factors and then derived fill-in values by adding to the intercept the random effects for the particular cells. This procedure takes into account differences between items and informants. A reanalysis of the data shows that our conclusions are not affected by this imputation (compared to an analysis simply excluding missing cases).

3 Results

3.1 Descriptive statistics

3.1.1 Methodological caveats and major trends

As for the reliability of the findings presented here, the lower the proportion of respondents opting for "I never use either expression" in our questionnaire, the more confident we can be about the results. Figure 8 in the Appendix gives the proportion of respondents reporting to use none of the two binaries. Out of our 68 lexical binaries, 63 have over 85% of informants responding that they use one or both of the variants. The remaining five binaries have been excluded from the analysis, since they have between 20% and 35% missing cases. We would have to exert greater caution in interpreting the results because of a significant gap (greater than 10%) between them and the remaining items (see Figure 1). The set of excluded items is interesting, nevertheless: Two learned words known primarily from formal and academic discourse (*bicentenary/bicentennial* and *glocalis/zation*) score lowest of all 68 items. In addition, there are two phraseological units (*a drop in the ocean/bucket* and *a storm in a teacup/a tempest in a teapot*), which seem infrequent in MaltE. Notice that another phraseological unit – with only 10% missing cases, however – ranks sixth lowest in terms of usage rate: *touch wood/knock on wood*. This suggests that idioms may be relatively rare in current, mainstream MaltE. The fifth binary with many missing cases is *laun-*

derette vs. *laundromat*, which appears to be an uncommon concept in the 21st century when most members of Western societies have access to washing machines in their homes (or dorms, condominiums etc).
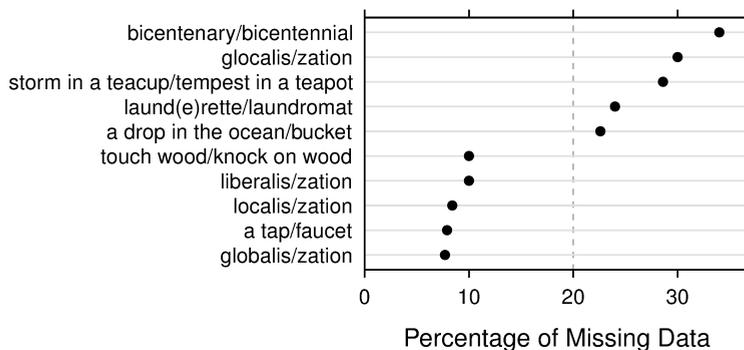

Figure 1: Proportion of respondents reporting to use none of the two given lexical alternatives: The 10 least frequently used lexical items (traditionally BrE/AmE terms)

Let us turn to the overall results. Unsurprisingly, given the history of English in Malta, half a century after independence, the Maltese informants still clearly tend towards BrE usage. The overall mean in 2013 is +0.85 (the standard deviation being 0.35; the overall median +0.87). This compares with an arithmetic mean of +1.0 in 2008 (see Krug & Rosen 2012 for detail). On average, therefore, Maltese informants reported more frequent use of the British English terms, but the preference appears to have somewhat weakened over the five years between 2008 and 2013.

Figure 2 shows a dot plot (cf. Sönning 2016) of the mean rating and standard deviation for each individual pair. Clearly, the preference for (more) British terms comes in degrees:

- British usage dominates for the vast majority of our lexical items (52 of the 63 binaries have values greater than 0).

- About half of the binaries display strong BrE preferences and have means greater than 1, with some items being used almost exclusively in the BrE variant (e.g. *postman, roundabout, pushchair, petrol, football*).

- Hovering around an arithmetic mean of about 0, eight items display a fairly neutral usage. This is to say that they are used – on average – interchangeably by individual informants or that their BrE and AmE variants
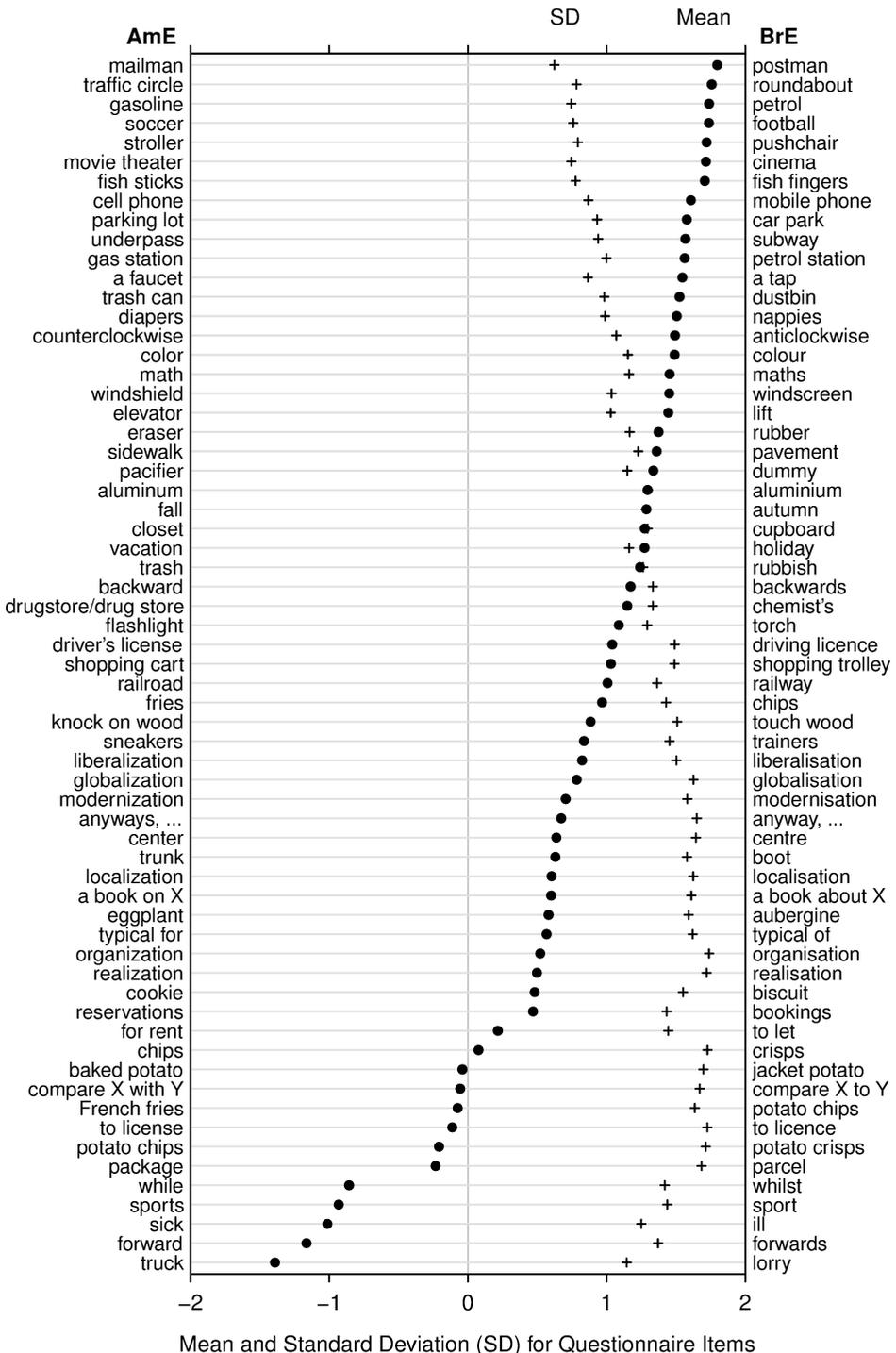
Figure 2: Distribution of the 63 lexical binaries

are preferred by comparable numbers of informants (or strongly preferred by some and slightly dispreferred by twice as many). In descending order from slightly more British to slightly more American usage, these are: *to let* vs. AmE *for rent; (potato) crisps* vs. AmE (*potato*) *chips; jacket potato* vs. AmE *baked potato; compare X to/with Y; package*, which is slightly preferred over BrE *parcel.* A special case is the verb *to license* vs. *to licence.* Here we may assume that people freely choose, possibly due to a potentially unknown minimal and non-systematic spelling difference between an allegedly BrE and AmE variant. Interestingly, this item has the highest standard deviation in our data set (of nearly 2). Most informants therefore reported using only one of the two options rather than having genuinely free variation as individuals. It would be interesting to compare actual corpus citations in Malta and also intuition- as well as corpus-based data from other varieties worldwide, including the reference varieties of British and American English.

- Few items are preferred in their (traditionally) more American form, the most striking one being *truck*[3], which is strongly favoured over (erstwhile) BrE *lorry* with a mean value of about −1.5. *Sick*, too, is preferred to *ill*. A special case is *while*, which is clearly also the unmarked choice in modern British usage when compared to *whilst. Forward*, too, is special because the noun (known from football) may have played a role in the informants' ratings. This is suggested by a strong preference for *backwards* (to AmE

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[3]Cf. *OED Online* 2016 *Online s.v. truck* n.2 (meaning 3g), whose earliest citations for 'a motor vehicle for carrying goods and troops etc.' are Canadian (from 1916) and U.S. American (1930), the latter actually pointing to British-American differences: "American English has universally chosen *motor truck* and *truck* rather than *auto-truck* or the British *lorry*" (*AmericanSpeech 5, 274*). Despite a first British attestation from 1932, even a quotation from 1950 points to transatlantic differences: "Many soldiers in the last war will remember that 'gas' might or might not be petrol and a 'truck' might or might not be a lorry" (*Times*, 27 Apr. 1950, 6/7). We are grateful to an anonymous reviewer for pointing out that *truck* is a relatively old English loanword in Maltese, as is indicated by a Semitic plural form (*trakk-ijiet*), which differs from the -*s* plurals of more recent loanwords like *film-s, printer-s, kompjuter-s*. In the absence of phonological factors in the plural formation of Maltese loanwords (like sonority of the stem-final phoneme), we can only reconcile such observations with the textual evidence presented from the *OED* by assuming that, while there was early variation (from at least 1932 onwards) in British English between *truck* and *lorry*, the predominant BrE lexical choice remained *lorry* until at least the 1950s. Further factors may be meaning specification (for instance in military domains) and the co-existence of different meanings of *truck* (especially 'large motor vehicle for carrying goods' and 'smaller motor vehicle with an open, load-carrying surface'), although in our questionnaire we refer explicitly to a 'large motor vehicle for carrying goods by road' (see Appendix, Figure 7).

> *backward*) among the Maltese informants, which is not commonly used nominally. The preference for *sports* (over traditionally BrE *sport*) seems to be an analogy to other school subjects and disciplines like *physics* or *linguistics.*

Prior to conducting the questionnaire study on a large scale and in different regions of the world, internet-based data were collected on the Maltese domain .mt for the lexical binaries, first in order to test feasibility and hypotheses, e.g. relating to colonial lag (by comparing the British and US-American domains .uk and .us) and later to check the reliability and external validity of intuition-based data. The internet data for items that eventually figured in the questionnaires are provided in Table 6 in the Appendix. Three items from the questionnaire were excluded from the internet ranking:

- the American alternative to *biscuit*, i.e. *cookie* (when used generically for something sweet and crispy, not necessarily containing chocolate chunks) occurs commonly as a digital cookie ('authentication method', 'trace of visited websites') on the internet;

- a digital *shopping trolley* is virtually always a *shopping cart*;

- an internet *chemist's* is virtually always a *drugstore* or figures under a certain brand name; also the online occurrences of *chemist's* would have to be disambiguated because the term routinely refers to a profession not targeted in the questionnaire proper.

Rank-based correlations for the remaining items show a highly significant association between web frequencies and pilot questionnaire data from 2008, with Spearman's rank correlation at $r = 0.63$, $p < .0001$, 95% CI [0.44; 0.76] (for comparison: Kendall's tau = 0.43, $p < .0001$; 95% CI [0.30; 0.58]). Needless to say, such strongly correlated ranks enhance considerably the reliability of both independently collected data sets (and conclusions drawn therefrom) as the likelihood that two rankings consisting of 65 items spuriously produce highly significant correlations approximates zero.

3.1.2 Apparent-time distributions and diachronic trends

Informant Age is the single-most influential factor in our data, explaining the largest share of the variation found (cf. §3.2 below for inferential statistics). Figure 3 displays a clear trend: The younger the informants become, the more likely
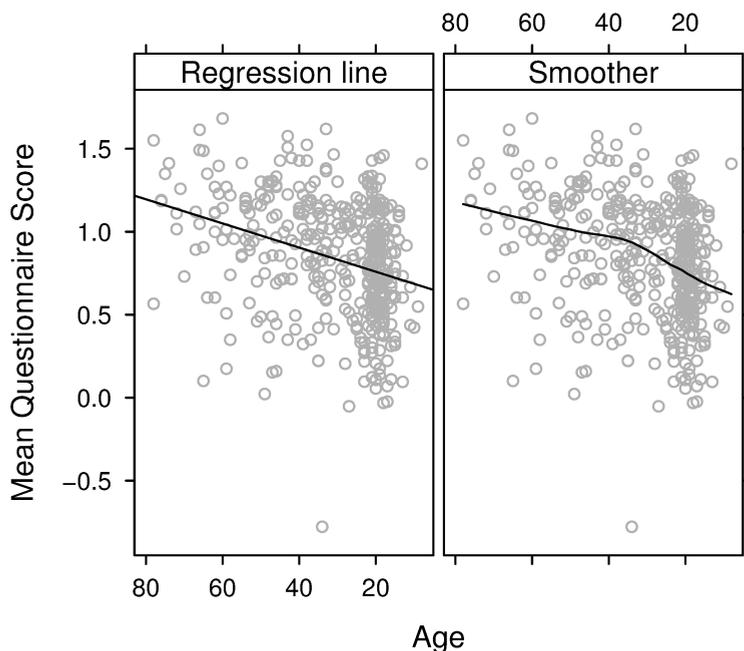
Figure 3: Mean score by Age (all informants): Least-squares regression line and lowess smoother

they become to use American forms. Whichever method we apply, the mean difference between our oldest and youngest informants is about 0.5. The right panel in Figure 3 overlays a lowess smoother (Cleveland 1979), an exploratory tool that detects non-linearity in the data. The latter throws into relief that roughly between the ages 40 and 15, there is a pronounced increase in Americanization. In fact, *globalization* (on which see Krug et al. 2016) would be the more adequate label here because almost all Maltese informants still have positive, i.e. British, arithmetic means; they are merely becoming more neutral, as it were, as they approach a mean value of 0. Owing to the high number of respondents in the relevant age cohorts of the present study, we are quite confident that this is not a spurious finding and would attribute this strengthening of an already existing trend to increased language contact with non-British English for speakers under 40. Conceivable is also the weakening of prescriptive BrE pressures in education. It seems noteworthy, therefore, that our data suggest a rough temporal correlation between speeded-up globalization for informants under 40 and a change in teacher education: Until the 1970s, teachers were mostly trained by British

personnel, but more recently teachers have been trained by bilingual Maltese native-speaker scholars at the University of Malta (Calleja 1994: 192, Martinelli & Raykov 2014: 2).

3.1.3 Influence of parental languages

For the analysis of the effect of parental native languages, three groups were compared: (i) Maltese as L1, (ii) English or both English and Maltese as L1, and (iii) other L1s. Table 1 shows the cross-tabulated distribution of Mother's and Father's native language for the 424 respondents in the analysis. Rather unexpectedly, overall the parents' native languages are very similarly distributed: around 85% of both fathers (*n* = 342) and mothers (*n* = 348) speak exclusively Maltese as a native language; around 10% have fathers (*n* = 43) or mothers (*n* = 42) who speak English (plus possibly Maltese) as a native language. And around 6% to 7% have mothers (*n* = 24) or fathers (*n* = 29) whose L1 is neither English nor Maltese. Furthermore, there seems to be an association between Mother's and Father's L1. This is especially noticeable for the groups "E(+M)" and "Other". Thus, informants with one parent who speaks English as native language have a disproportionate likelihood of the second parent also speaking English as an L1 (that share is about 50%; compared to an overall share of 10% in the sample). The same is true for parents with an L1 different from English and Maltese.

Table 1: Distribution of parents' native language(s)

| | | **Father** | | | **Total of** |
		M	**E(+M)**	**Other**	**mothers**
	M	320	21	7	348
Mother	E(+M)	15	20	7	42
	Other	7	2	15	24
Total of fathers		342	43	29	414

Figure 4 shows the distribution of questionnaire scores by Mother's and Father's native language, respectively. As is evident from the left panel, informants with a mother whose L1 background includes English are more likely to tend towards British lexical choices than informants whose mother's L1 is exclusively Maltese or a language other than Maltese or English. If the mother's native language is neither English nor Maltese, then both mean and median values are lower, i.e. more American or globalized. The right panel shows that in our data
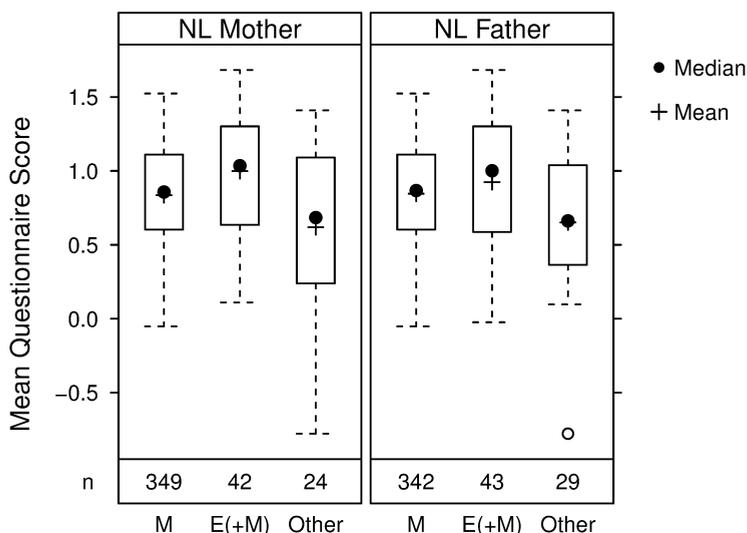
Figure 4: Mean questionnaire score by Mother's and Father's native language(s)

exactly the same tendencies obtain for the influence of the native language(s) of the informants' fathers as for their mothers. Such results are not counterintuitive: For one, native speakers of English in Malta (especially of the older, parental generations) tend to be British or oriented towards BrE usage. For another, those speakers in Malta whose native language is neither English nor Maltese are statistically more likely to have been in contact with or exposed to (more) American English or to non-native (and thus potentially more globalized) varieties than native English speakers in Malta.

Table 2 shows that both means and medians are strikingly similar in each row. The closest value for every mean and median of the Father's native language is that in the respective cell of the Mother's native language. In other words:

- When an informant's mother's L1 is (only) Maltese, he/she has almost the same mean and median as an informant whose father's L1 is (only) Maltese.

- When an informant's mother's L1 is English (plus possibly Maltese), he/she has almost the same mean and median as an informant whose father's L1 is English (plus possibly Maltese).

- When an informant's mother's L1 is neither English nor Maltese, he/she has almost the same mean and median as an informant whose father's L1 is neither English nor Maltese.

Table 2: Father's and Mother's native language: Frequency (n) and mean (M) and median (Mdn) questionnaire score

Native language	Father			Mother		
	n	M	Mdn	n	M	Mdn
Maltese	342	0.85	0.87	349	0.84	0.86
English (or English and Maltese)	43	0.92	1.00	42	1.00	1.04
Other	29	0.65	0.66	24	0.62	0.68

It appears reasonable to assume that the relative influence of mother's and father's language use may differ between male and female informants. Specifically, boys may be more likely to identify with their fathers and thus more likely to adopt the linguistic behaviour of the father (see Hurd et al. 2009 on role models). While the same may hold for girls and mothers, we may also speculate that, on average, language contact between mothers and children is generally higher, which would suggest that boys and girls are influenced by their mother in similar ways. To explore possible role model effects of fathers (on sons) as well as language contact-induced levelling of influence of mothers on children in general, we carried out subgroup analyses. Figure 5 shows the influence of Mother's and Father's L1 separately for male and female informants. Indeed, there appears to be an interaction between Gender and parental L1. For Mother's L1, male and female informants show the same pattern of influence. The effect is more pronounced for male informants, however. The effect of Father's native language, on the other hand, in fact appears to differ for male and female informants. The rightmost panel in Figure 5 suggests that for female informants, there is no effect of their father's native language on the use of lexical binaries; however, there emerges an interesting pattern for men: If male informants have a father whose native language is (or includes) English, these informants' use of lexical items receives a boost towards traditionally British terms. The mean values closest to the neutral zero, and thus the highest degrees of linguistic globalization, are found for male informants whose fathers' native language is neither English nor Maltese. Our data therefore suggest that male Maltese are more strongly influenced by their father's L1 than female language users of English in Malta, at least as far as lexical usage is concerned.

The descriptive analyses in the present section have identified various potential factors for the choice between British and American lexical binaries in our data set. The following section will elaborate on these aspects with the help of inferential statistical analyses. The descriptive trends will be subject to statistical
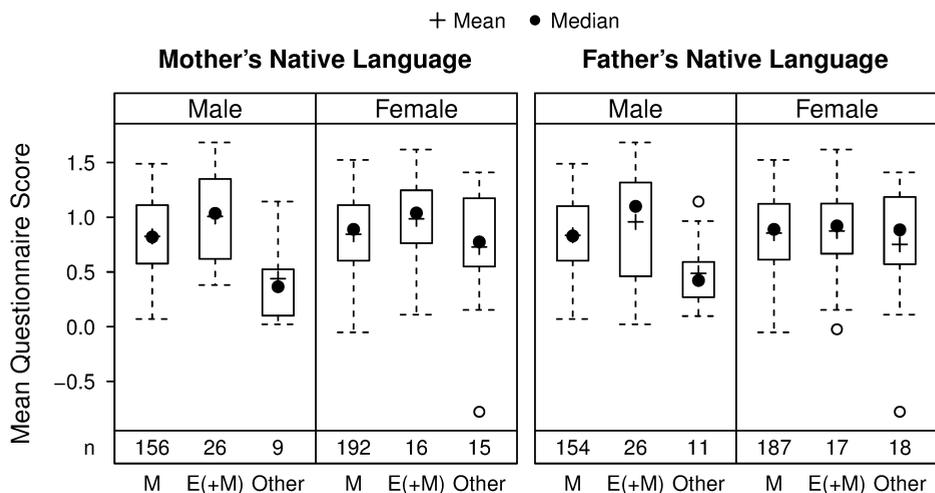
Figure 5: Interaction of Mother's and Father's native language with Gender

significance tests in order to determine whether the patterns in our sample can be generalized to the population of speakers of Maltese English.

3.2 Inferential analysis: The interaction of informants' age and their parents' native languages

In essence, the aim of the inferential analysis is to determine the degree of (un-)-certainty associated with each of the potential factors and trends outlined above. The pool of explanatory factors is reduced to a set of predictors whose effect is generalizable to the population, i.e. whose pattern of influence is relatively robust in the sense that it can be relied on with a sufficient degree of confidence. We use multiple linear regression to model questionnaire score as a function of potential explanatory factors. The selection of variables for the final model was based on the criterion of statistical significance. As can be seen in 3, the distribution of Age in our sample is skewed, with an overrepresentation of younger informants. The variable was therefore log-transformed before modelling.

In the process of model selection, informant Gender was removed since – in the presence of the other factors – this variable did not contribute significantly to the explanation of lexical choices, i.e. the usage of more or less British and American variants. Nor did the interactions between either one of the parental native languages and informant Gender pass the critical threshold. On the basis

of the present data, therefore, the different patterns identified in Figure 5 for male and female participants cannot be generalized to the entire population of MaltE speakers. The final model includes Age (log-transformed), Mother's native language and Father's native language. Tables 3 and 4 provide a technical summary of the model, listing the coefficients and the type II analysis of variance with F-tests for each term in the model, respectively. While Age and Mother's native language both reached the *p*-value criterion of 0.05, Father's native language may be described as trending towards the established benchmark. We decided to retain it in the model for two reasons: First, a chi-squared test showed a statistically significant association between Father's and Mother's native language, χ^2 (4) = 209.16, *p* < 0.0001 (Cramer's V = 0.50). As Table 1 shows, parents were likely to have the same native language(s). Knowing the mother's L1 thus allows us to guess the father's L1 at above-chance level. From a statistical perspective, these variables thus contribute very similar information to the model. This introduces collinearity and reduces the precision of (and confidence in) model parameters. As a result, the *p*-values for both Father's and Mother's native language are inflated. Second, and more importantly, including both parental L1s as predictors in the model allows us to judge their relative importance, i.e. to determine whether (the native language of) the mother or father is more influential in shaping informants' lexical preferences.

The relative importance of Age and parental native language on the preference for BrE vs. AmE variants will be illustrated and discussed using (i) the proportion of variance explained by each variable and (ii) effect displays (see Figure 6 below). Overall, the model accounts for 15% of the variation in questionnaire scores. Table 5 shows the proportion of variance explained by each factor, a useful measure of the relative importance of the three variables in the model. The metrics were calculated with the package relaimpo (Grömping 2013) in R, using the lmg metric (Lindeman et al. 1980: 119 ff). Age clearly emerges as the most important factor, explaining more than 10% of the variance. This corresponds to a correlational effect size measure of around 0.32, which, according to the benchmarks suggested by Cohen (1988), may be considered a medium-sized effect. Parental native languages contribute less to the overall model, with Mother's native language at 3.5% (r = 0.19) and that of the father just below 2% (r = 0.13). The fact that Age outranks parents' native languages is partly due to the uneven distribution of parental native languages: With more than 80% of mothers and fathers having Maltese as a native language, there is not much variation between informants (cf. Table 1). Importantly, however, Mother's native language accounts for more variation than that of the father.

Table 3: Type II analysis-of-variance table for the terms in the model

Source	SS	df	F	p	
Age (log-transformed)	5.52	1	49.59	$8.1\,e^{-12}$	***
Mother's native language	1.55	2	6.98	.001	**
Father's native language	.53	2	2.36	.096	

Table 4: Coefficients for the model

Coefficient	Estimate	SE
Intercept	.02	.12
Age (log-transformed)	.25	.04
Mother's native language (reference: Maltese)		
English (and Maltese)	.18	.06
Other	−.14	.09
Father's native language (reference: Maltese)		
English (and Maltese)	.00	.06
Other	−.17	.08

Note. N = 414, k = 6, residual SD = .33, adjusted R^2 = .15

Table 5: Comparison of the predictors: Proportion of the variance explained

Predictor	Variance explained
Age (log-transformed)	10.2 %
Mother's native language	3.5 %
Father's native language	1.8 %

Figure 6 shows effect displays (Fox 1987) for the three factors in the model. These were constructed with the effects package (Fox 2016b) in R. Such displays allow for closer inspection of each factor in a similar fashion to the descriptive charts above. Importantly, the patterns in these displays are usually more trustworthy, since they take into account (i.e. control for) the influence of the other factors in the model. In other words, they show the effect of a specific predictor while holding constant the effect of the remaining factors. The effect displays show fitted mean values and 95% confidence intervals, which indicate the precision of the estimates (for more information see Fox & Weisberg 2011: 172-177, Fox 2016a). Such displays greatly facilitate the interpretation of multivariate models and make it possible to directly compare effect magnitudes and patterns across different factors.
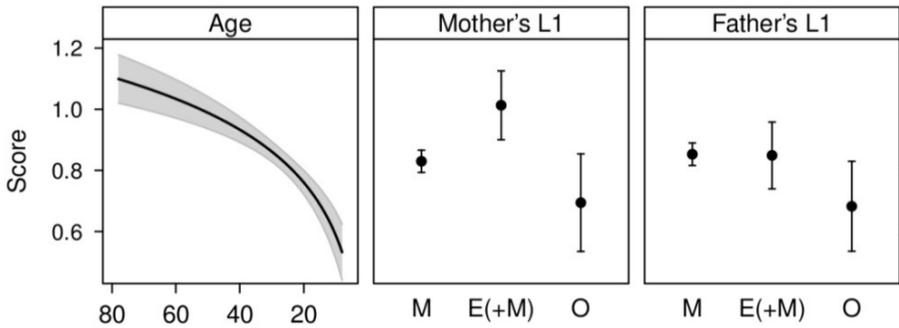
Figure 6: Effect display for the model: Estimates with 95% confidence intervals

The first panel in Figure 6 shows the main effect of Age, which was discussed above. The non-linearity of the trendline that was apparent in Figure 4 also emerges here, with younger cohorts showing an increasingly stronger trend towards more AmE or globalized language use. While informants aged 60 and older score above 1.0, informants younger than 20 typically score below 0.7. The confidence interval for the linear trend indicates some uncertainty for the older cohorts due to the (relatively) small number of older informants (see Figure 3). The second panel in Figure 6 exhibits the same pattern as Figure 4, with English or bilingual (English and Maltese) mothers triggering a stronger tendency towards British variants. While Maltese is intermediate, the group of informants whose parents have native languages other than Maltese or English appears to be more globalized in terms of their lexical preferences. The rightmost panel shows similar trends for Father's native language as regards "Maltese" and "Other". In con-

trast, however, fathers with English (and Maltese) as their native language do not bias their offspring towards a preference for British items. A comparison of the factors in Figure 6 further underlines the role of Age as the most important factor: the fitted values range from 0.6 to around 1, thus covering a range of 0.4 in respondents' overall mean values. The levels of Mother's native language, on the other hand, cover a range of 0.3, while Father's native language only accounts for differential effects in the range of around 0.15.

4 Discussion

On the basis of a hitherto unanalysed data set from 2013, we essentially confirm, but also significantly qualify, properties and trends reported for older Maltese English data and their relation to aspects of globalization (cf. Krug & Rosen 2012; Krug 2015). In the descriptive part of this paper, we showed that while the vast majority of items in MaltE are preferred in their BrE form, there are exceptions indicating that (erstwhile) AmE items such as *truck, sports, package* are preferred over their (traditional) British counterparts *lorry, sport, parcel,* respectively.[4]

In apparent-time studies, we visualized and isolated as statistically significant the influence of informants' age, thus establishing for Maltese English novel patterns of ongoing language change (cf. Labov 1990). Regardless of the statistical approach and regression model we adopted, all our studies yielded strong apparent-time trends towards a less exclusively British English usage in Malta, converging on a more globalized usage of lexical items. This trend was seen to be nonlinear and gained pace among the younger cohorts (cf. Figure 3 and the curvilinear shape of the leftmost panel in Figure 6).

Since the comparison of apparent-time and real-time studies of the same phenomena in a clear majority of cases reflects actual diachronic change (cf. Cukor-Avila & Bailey 2013), we conclude that we are witnessing ongoing language change in Malta with regard to the choice of the lexical binaries under investigation. Previous apparent-time studies in linguistics have focused on phonetic, inflectional and syntactic features, whereas we tested lexical binaries. We see, however, no fundamental differences that would forbid applying the same principles to our data. Since we did not elicit information on stigmatized lexical items, there is, we believe, no reason to assume age-graded behaviour for our data (cf.

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[4]Notice that the standard deviation for *parcel* vs. *package* is among the highest in our data set (similarly to the verb *to licence* and spellings ending in *-is/zation*; see § 3.1 and Figure 2 above). The apparent-time trend suggests that, rather than having free variation, informants over 35 prefer *parcel*, whereas younger cohorts show a pronounced shift towards *package*.

Labov 1994: 98-112). Abrupt reversal to older usage preferences seems unlikely as long as no major changes in language and education policies occur.

While Informant Age is the single most important factor for explaining the variation found in our dataset, the native languages of the informants' parents also play a role. More specifically, the native language(s) of the mother appeared to be more influential than that of the father, at least as far as their offspring's lexical choices are concerned. It was evident (and statistically significant) that when the mother's native language(s) included – in Malta, a typically British-oriented form of – English, the informants' lexical choices were biased in the expected direction, figuring in higher mean values, i.e. increased Britishness of both male and female informants' choices (cf. Figure 4). The influence of fathers was less obvious, and this is, prima facie at least, an intuitively plausible result: Children in Malta in all likelihood still have, on average, more language contact with their mothers than fathers and thus are more likely to be influenced by their mother's than their father's lexical choices.

Furthermore, our data suggest tentatively (cf. Figure 5) that male informants are more strongly influenced than female informants by their fathers' native language(s). While this trend needs to be confirmed by additional research, it is in line with non-linguistic studies (the transferability of which needs to be treated with even greater caution); such studies, at least, have occasionally shown gender-matched role models to be more influential than non-matched role models (cf. Hurd et al. 2009). One question emerging from this contribution therefore seems to offer particularly interesting avenues for future research: Does the linguistic behaviour of fathers have a greater impact on their son(s) than on their daughter(s) language beyond the narrow confines of lexical choices and in regions other than Malta? If the answer to both parts of the question is yes (or probably yes), it would be fascinating to investigate whether similar tendencies can be found for other cognitive-behavioural domains in studies of human psychology or evolutionary anthropology.

Acknowledgements

Appendix

Table 6: Web data from 2007 (percentage of BrE variants among hits) and questionnaire data from 2008 (average across all subjects)

Item	Web 2007	Malta 2008	Item	Web 2007	Malta 2008
a drop in the ocean	100.0	1.44	torch	88.0	1.52
laundrette	100.0	1.08	pushchair	87.8	1.86
roundabout	99.9	1.93	fish fingers	86.7	1.85
rubber	99.5	1.51	chips	84.4	.91
driving licence	99.2	1.35	bicentenary	83.3	.46
cinema	99.1	1.77	rubbish	82.9	1.57
mobile phone	98.6	1.74	subway	79.2	1.91
petrol	98.2	1.91	jacket potato	77.8	.02
colour	98.0	1.81	liberalisation	75.6	.98
aluminium	97.8	1.62	crisps	72.5	.72
petrol station	97.4	1.80	modernisation	71.3	1.01
holiday	97.4	1.35	boot	68.3	.80
trainers	97.3	1.14	lorry	66.8	-1.71
a tap	97.1	1.84	licence	64.0	.18
dummy	95.3	1.55	globalisation	62.7	.83
bookings	94.7	.13	to let	58.8	.37
postman	94.3	1.93	backwards	55.8	1.06
football	94.2	1.67	cupboard	53.1	1.59
maths	93.9	1.80	nappies	50.9	1.70
railway	93.6	1.41	glocalisation	50.0	.81
car park	93.5	1.73	ill	48.8	-1.02
dustbin	93.1	1.69	sport	45.8	-1.33
centre	92.8	1.17	aubergine	41.7	.45
in autumn	92.1	1.59	realisation	40.4	.78
pavement	92.0	1.64	whilst	28.3	-1.02
storm in a teacup	90.9	1.64	potato chips	22.3	.02
localisation	90.1	.94	organisation	21.9	.70
touch wood	90.0	1.10	potato crisps	21.4	.57
anticlockwise	89.5	1.79	parcel	1.7	.01
windscreen	88.8	1.69	forwards	0.6	-1.09

|	I always use this expression	I use this expression more often	I have no preference	I use this expression more often	I always use this expression		I never use either expression	Explanation / Comment
to licence	○	○	○	○	○	to license	○	
elevator	○	○	○	○	○	lift	○	
localisation	○	○	○	○	○	localization	○	
truck	○	○	○	○	○	lorry	○	*(large motor vehicle for carrying goods by road)*
maths	○	○	○	○	○	math	○	
cell phone	○	○	○	○	○	mobile phone	○	
modernisation	○	○	○	○	○	modernization	○	
diapers	○	○	○	○	○	nappies	○	*(for babies)*
organisation	○	○	○	○	○	organization	○	
package	○	○	○	○	○	parcel	○	*(something you send by mail)*
pavement	○	○	○	○	○	sidewalk	○	*(for pedestrians, next to street)*
gasoline	○	○	○	○	○	petrol	○	
petrol station	○	○	○	○	○	gas station	○	
mailman	○	○	○	○	○	postman	○	
pushchair	○	○	○	○	○	stroller	○	*(for toddlers)*
railroad	○	○	○	○	○	railway	○	
realisation	○	○	○	○	○	realization	○	
traffic circle	○	○	○	○	○	roundabout	○	*(for cars)*
rubber	○	○	○	○	○	eraser	○	
trash	○	○	○	○	○	rubbish	○	
shopping trolley	○	○	○	○	○	shopping cart	○	
sports	○	○	○	○	○	sport	○	
storm in a teacup	○	○	○	○	○	tempest in a teapot	○	
underpass	○	○	○	○	○	subway	○	*(path for pedestrians under a road)*
to let	○	○	○	○	○	for rent	○	
flashlight	○	○	○	○	○	torch	○	*(electric lamp)*
touch wood	○	○	○	○	○	knock on wood	○	
sneakers	○	○	○	○	○	trainers	○	
whilst	○	○	○	○	○	while	○	
windshield	○	○	○	○	○	windscreen	○	
a book about chemistry	○	○	○	○	○	a book on chemistry	○	
compare X to Y	○	○	○	○	○	compare X with Y	○	
typical of	○	○	○	○	○	typical for	○	
Anyways, …	○	○	○	○	○	Anyway, …	○	

Figure 7: Questionnaire excerpt
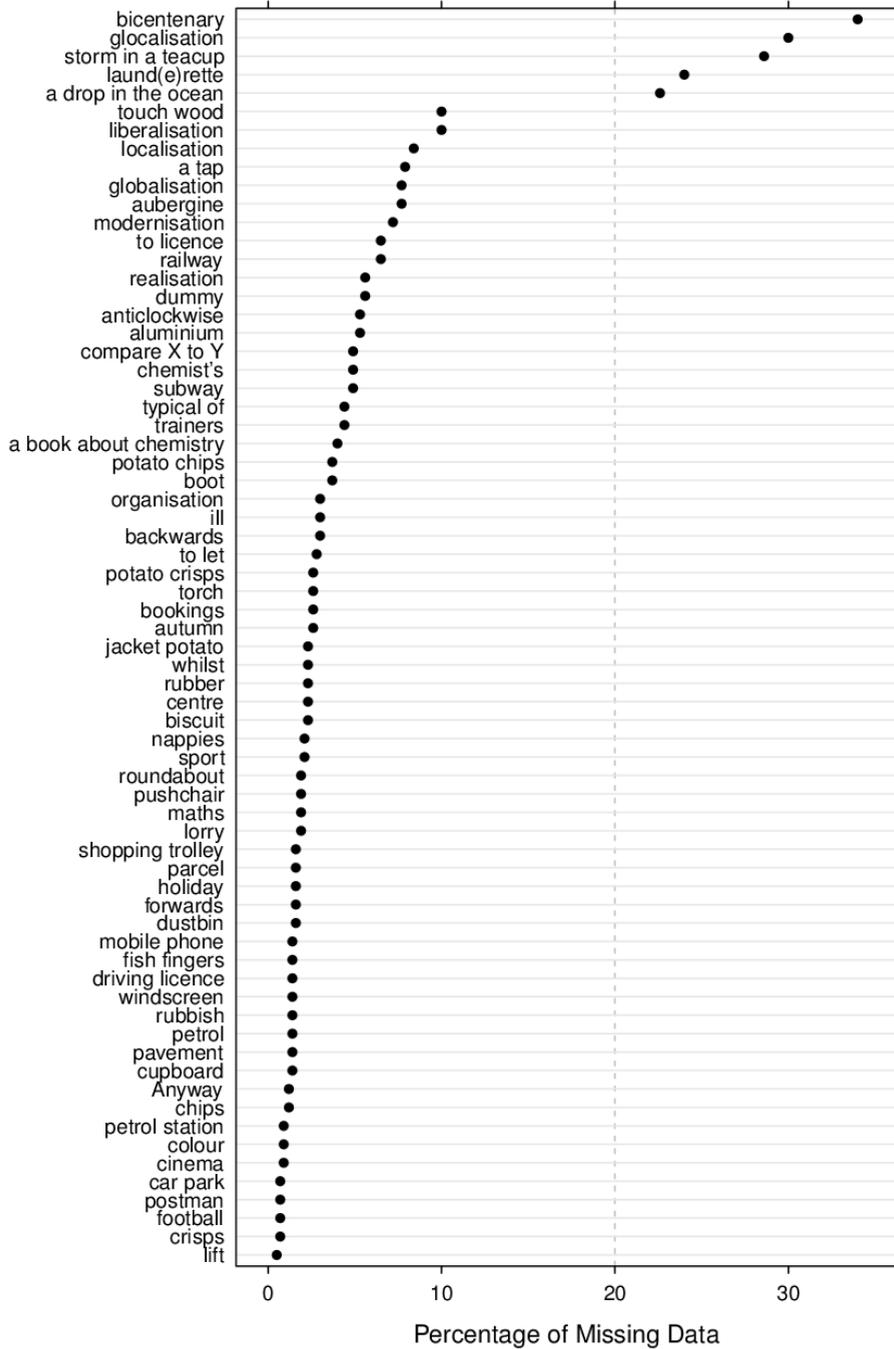
Figure 8: Percentage of respondents choosing "I never use either expression" (more/traditionally BrE terms given)

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