Dear readers,

apologise, this is not an issue on intertextuality (although, of course, the first reader who tells us where this opening was stolen from will get a special mention in the next issue). As a matter of fact, however, the mix of papers which this issue contains may raise, implicitly and seriously, all of the questions which the opening of this letter has raised explicitly though facetiously. There is, first, a paper (by Dollinger) on the historical fate of the prefix \( \text{Z} \text{e} \text{-} \). Although it apparently is about something English, it takes a rather unusual perspective and views the prefix as a lineage of mental replicators which seem to have been selected against during the evolution of the language. Two of the other papers, one apparently on Maltese English (by Micheli) and one on Southern American English (by Soukop) are also not really about English either, but rather about the attitudes which speakers have on the language. It might be interesting to ask how those attitudes would change if the investigated speakers adopted Dollinger’s attitude and viewed ‘their’ languages as teams of mental viruses, and themselves as helplessly determined to spread and reproduce the latter. The final contribution (by Štekauer and colleagues) investigates the ways in which speakers of both English and Slovak employ ‘their’ languages to call fellow humans after animals. You could try and ask yourselves, of course, how that habit might look from the point-of-view of the names which find themselves being given to both animals and their human hosts …

... but you will be perfectly able to do without our advice, and the questions you will raise will be very much of your own making – or will they? – However that may be, remember this: whenever you should feel like passing one of them on to us, we shall be very pleased to receive and spread it. That’s what we are all about, aren’t we?

The Editors
The Old English and Middle English prefix ge- as a linguistic replicator:
A morphological case study in a neo-Darwinian framework

Stefan Dollinger, Vienna*

“... the Darwinian theory of biological evolution, with its interplay of mutation, variation and natural selection, has clear parallels in historical linguistics, and may be used to provide enlightening accounts of linguistic change.” (April McMahon 1994: 340)

0. Introduction

Evolution, the central notion in Darwinian models, became a ‘nasty’ word in linguistics and in the social sciences long ago. Usually, as soon as one mentions Darwinian principles as underlying an approach to language, one is confronted with scepticism and sometimes prejudice. However, most of this is due to misconceptions of Darwin’s theory, based on how it was falsely applied to all kinds of domains right after its publication in 1859 (cf. Appleman 1970: 633f). In the field of linguistics, the renowned 19th-century philologist August Schleicher has been connected to Darwinian ideas for a long time. As a matter of fact, however, Schleicher is not a proponent of Darwinian, but pre-Darwinian ideas, as Brigitte Nerlich (1989) has shown.1 Nerlich concludes her study that

* Author’s e-mail for correspondence: stefan.dollinger@univie.ac.at

1. In those early models, the fascination with ‘biological metaphors’ in language often remained at a superficial level and therefore we find very frequently little more than metaphoric means of description, as the following example by Schleicher suggests (cf. Dollinger 1999: 6-12): “es sind unsere jetzigen europäischen Cultursprachen in ihren
What was missing [in the 19th century], and is still missing [in 1989], is a sound application of the theory of variation, selection and adaptation in theories of language and change. (Nerlich 1989: 101)

In the past decade, however, some ‘sound application[s]’ of Darwinian principles of language change have been developed. Roger Lass (1990) and April McMahon (1994: 314-40) have contributed important insights. Nikolaus Ritt’s memetic approach, to which the present approach is heavily indebted, may be regarded the most advanced one (cf. e.g. Ritt 1995, 1996, but especially 2001). His approach serves as the background for some phonological case studies (Ritt 1997a, 1997b).

It is the purpose of this paper to try one of these ‘sound application[s]’ of Darwin’s theory in the field of morphology. After a short introduction to the problem, the many proposed functions and meanings of ge- will be summarized briefly. Then, a short introduction to some basic principles of the replicator theory will be provided before we turn to the interpretation of the results of a diachronic study on OE/ME ge- in eight successive periods from before 850 up to 1500 AD. Using the example of OE/ME ge-, I will try to demonstrate the new perspective and explanatory power of the replicator theory.


The English prefix ge-, pronounced /jW/, has been subject to research for many centuries. This is not surprising, as it represents a linguistic item with a highly interesting historical record: At some point in the history of English, ge- was widely in use and some four centuries later, it almost completely disappeared. Ge- appears in several forms over the centuries and is found in the earliest OE periods as well as in late ME up to the end of the 15th century. Interestingly, the prefix is found in almost all parts of speech. In OE, we find ge- in:

- nouns, e.g. O2 gehæfte ‘slave, captive,’ O3 gemære ‘land, border’

Lauten und Formen gealterten Pflanzen vergleichbar, die abgeblüht haben” (Schleicher 1879: 9).

2. This article is based on an unpublished MA-thesis at the University of Vienna (Dollinger 2001).

3. Traditionally, the end of ge- in ME is dated to about 1400 (Pilch 1951/52: 26 & 191), but the advent of carefully designed electronic text corpora such as the Helsinki Corpus has made it easy to correct this date to about 1500 (cf. Dollinger 2001: 142).

4. O2 refers to the second OE period in the Helsinki Corpus, i.e. 850-950; ‘M’ refers to the ME periods in the Helsinki Corpus, resp. Pennsylvania-Helsinki Corpus. Please cf. table (1). A further note on the use of italics and single quotation marks in relation to ge-: ge-
• verbs, e.g. O4 geherde ‘heard,’ O1 gedoen ‘they make, they do;’ O1 gestrionen ‘to acquire, beget;’
• past participles and adjectives, e.g. O3 gesetet ‘put, ModHG gesetzt,’ O2 gefylled ‘filled, fulfilled,’ O3 gebletsod ‘blessed,’ O3 gegered ‘prepared, made ready;’
• adverbs, e.g. O3 genoh ‘enough,’ M1 gelich ‘likewise;’
• pronouns, e.g. O1 gehueder ‘each, both,’ or O3 gehwylce ‘which.’

Considering its wide use across all classes, it is little surprising that ge- is unequivocally categorized as an extremely frequent OE prefix.5 Moreover, there is consensus among scholars that the English prefix ge- is an OE prefix that ‘managed to survive’ into ME in other forms.

However, the decline of ge- did not occur in all geographical areas simultaneously.6 The loss of ge- began first in Northumbria (e.g. Stanley 1982: 31). Pilch draws an isogloss on the basis of textual evidence and comes to the conclusion that the demarcation line of the Treaty of Wedmore in 878 (Dane-law), in which Alfred the Great established a truce with the Scandinavian invaders, is almost identical with it (cf. 1951/2: 24-6). Disregarding a few fossilized forms, ge- became extinct around 1200 in the north (ibid: 26 & 191), but as late as the end of 15th century in the south. In contemporary English, we still have evidence of fossilized forms of ge- in words such as Present Day English (PDE) enough < OE genoh; afford < gefordian; aware < gewær, or handiwork < handgeweorc (cf. also Pyles & Algeo 1993: 268).

6. The formal history of the prefix and the geographical specifics of its demise are fairly well established, and thus a few words shall suffice on the various realizations on OE ge- to complete the picture for our purposes (for a good published account see Koziol (1972: 103), otherwise Pilch (1951/52: 24-6). The oldest form of our prefix in OE is ‘gi-’, which is also found in the oldest subperiod in our data, O1 (before 850 AD), but occurs there already very rarely: e.g. O1 gidroefid ‘troubled,’ O1 giwundad, ‘wounded.’ Luick (1964: §325) dates the change from ‘gi-’ to ‘ge-’ as having occurred after 740. According to Pilch (1951/52: 26), its palatal /g/ was softened to /j/ in OE – late specimens of which are found in M3, e.g. j-take, ‘taken’ – and was then turned into ‘i,’ e.g. M1 ibrohte, ‘brought,’ which was graphemically rendered as ‘y-’ from around 1300 onwards. We find evidence of this still in eModE ycleped, ‘called.’ The aphaeresis, i.e. the loss of initial ‘g,’ was completed by the end of the 12th century and, according to traditional theory, created one of the conditions for the demise of the prefix (Pilch 1951/2: 188).
We have seen that the English in the south up to around 1500 ‘had’ the prefix *ge-* in some way or another, whereas PDE is, on the whole, doing fine without it. Several schools of thought have tried to describe and/or explain why this change occurred: scenarios centering around neo-grammian sound-changes (e.g. Luick [1964]: §451, Pilch 1955: 39), sociolinguistic phenomena (e.g. Pilch 1951/52: 26, Marchand 1969: 258, Lutz 1997: 258f), loss of semantic meaning (e.g. Mossé 1938, II: 22) and other functionalist approaches have been proposed and often combined with each other (e.g. Pilch 1951/52) to come to terms with the decline of *ge-*.. As different as these approaches may be, all have in common that they center around the functions and meanings of *ge-* or what these are believed to have been. Not surprisingly, proponents of functionalism have contributed the lion’s share of scenarios. A central notion in functionalist explanations, even though not always explicitly stated, is that the prefix *ge-* was, as Lindemann (1970: 2) puts it, “an important thread in the whole fabric of OE.” This evaluation is based on the high frequency of *ge-*.

2. With and without /j]/ functionalist circularity

One of the earliest comprehensive accounts on *ge-* is William Somner’s entry in his *Dictionarium Saxonico-Latino-Anglicum* dating from 1659. Somner’s study proves that the systematic quest into the functions and meanings of *ge-* is an enquiry that has already lasted for almost three and a half centuries. At times even extensive efforts have been invested into research on *ge-* especially in the philological heyday before and around World War I, when a number of extensive monographs were published (Lenz 1886, Hesse 1908, Lorz 1908, Weick 1911, Wuth 1915). However, since World War II only a couple of scholars have dedicated themselves to OE *ge-* and the studies of Pilch (1951/52, 1952/53, 1955), Niwa (1966, 1973, 1974) and Lindemann (1970) are still among the most recent literature on *ge-*.. Only recently, Drobnak (1994) attempted to forge new paths, but unfortunately with inconclusive results (see Dollinger 2001: 36-9 for discussion).

A study of the literature has yielded four groups of functions and meanings of *ge-*.. For the purposes of this article, I will present these groups very briefly. (for a detailed discussion, see Dollinger 2001: 24-42). Proponents of Group (1), which I shall call the nihilists, believe that *ge-* had no semantic content, that it was a “meaningless appendage” and thus superfluous (Fijn van Draat 1902: 360). Proponents of this idea are Horgan (1980) and to some extent Kastovsky (1968: 488). The proposed semantic emptiness makes *ge-* ac-
According to Samuels (1949: 66) and Stanley (1982: 31), a useful device for poetry to match verse translations with the (Latin) originals.

Proponents of group (2), in contrast, argue that *ge*- had semantic meaning and was thus a device for word formation. Here, four subgroups can be found. Meaning (2a) is expressed by the notion of ‘with, together,’ which is one of two proposed core functions of *ge*-. Early references are found in Grimm (1826: 833) and Schleicher (1879: 224). Magoun (1930: 48e) and later Kastovsky (1968: 488; 1992: 380) differentiate two subtypes, which need not be our concern here. The second meaning, (2b), is that of a deictic device signifying the concepts of ‘to and away.’ Lindemann (1970: 63) seems to be the only proponent of this idea, which does not account for much of the data. Subgroups (2a) and (2b) are complemented by the meaning of intensifier or marker of repetition, (2c), as in OE *geþring* ‘tumult’ from *þringan* ‘to press, squeeze,’ a meaning which one would have to extent to some verbs as well, like *geþringan* Finally, *ge-* was supposed to be a generalizer (2d), as is expressed in the pronouns OE *gewhâ* ‘whoever,’ or *gehwile* ‘whatever, whichever’ (Weick 1911: 47; also Magoun 1930). However, meanings (2c) and (2d) modify the meaning of a word in very subtle ways and may or may not have been perceived by speakers of OE.

Proponents of the next group, (3), focus on the functions of *ge*- as a grammatical marker. Here, Streitberg’s (1891) theory on Got. *ga*- has influenced much of the research on OE *ge*-. According to the theory, *ge-* is a marker of perfective aspect. Therefore, a word like OE *faran* denotes ‘to go, wander around aimlessly,’ whereas *gefaran* would imply a goal, or OE *winnan* means ‘to fight,’ but *gewinnan* ‘to get by fighting, win’ (Mitchell & Robinson 1995: 58). However, counter examples are manifold in OE (cf. Dollinger 2001: 18 for some examples) and we have reason to believe that this function, which is reported for many Gmc. cognates of *ge*-, cannot be applied to OE *ge*-. Pilch (1951/52: 130) even goes a step further and refutes the whole theory of aspect “für das Germanische heute als veraltet”. However, in handbooks this function is still deemed to be the second core function of OE *ge*-, besides marking ‘with, together’ (cf. Mitchell & Robinson 1995: 58).

7. In a pilot study, relevant figures could only be reached in period O2 (16.4%), but many of these instances could also be interpreted in a different paradigm. In the other three OE periods the percentages are between 1.5 and 1.7% (cf. Dollinger 2001: 100).
8. The theory was falsely called theory of Aktionsart at the time (cf. Pilch 1951/52: 8 for discussion).
There are three other categories of grammatical functions of *ge-*, some of which may lead us to more inspiring ideas than the ones presented above. Lenz (1886: 12f) was among the first to propose that *ge-* transitivizes intransitive verbs (3a), an idea found also in Pilch (1952/53: 135). As an example we might list OE *gebiddan* ‘to worship sb., ModHG anbeten’ vs. *biddan* ‘to beg, ask, pray.’ However, as there are many compound verbs that are not transitive, the scope of the theory is limited, e.g. O2 *gefylle* ‘fill, will fill’ in the following context, where we have a reflexive pronoun and a prepositional object:

(...) ðeah he þonne giet on ðæs flæces lustfulnesse licge, mid ðæm ðæt he hine getrymige & gefylle mid ðæm uplican tohopan.

(*Helsinki Corpus: O2 IR RELT CP 395: <R 51.395.2>*)

[... although the mind [se wena = PDE the mind; pronoun he in OE], comforting and *filling itself with heavenly hope*, still falls with the desire of the body.]

Function (3b) however, is an even more interesting one. Pilch (1951/52: 198) reports from the *Grammar of Battlefield*, dating from the mid-1400s, that *ge-* is explicitly mentioned as a marker of the past participle. In the literature, this idea has been almost exclusively referred to in connection to Streitberg’s theory, where *ge-* expresses perfective aspect. However, since *ge-* has never played a prominent role in the formation of the past participle in grammars of Old English, and is sometimes not even mentioned, e.g. Brunner (1965), the importance of this function has been neglected. We shall hear more about it in the case study.

The last function in this group is that *ge-* was used in certain syntactic environments, (3c). Many suggestions have been made in this respect: Lenz (1886: 18f) reasons that preverbal *ge-* was used after modals, but Grimm (1826: 849) states the opposite for OE. Leonard Bloomfield (1929) identifies highly idiosyncratic environments for *ge-* on the basis of a mere sample of eight verbs, and Niwa (1966: 70) comes to the conclusion that *ge-* is used in certain types of clauses. All these results could not be verified in a pilot study (cf. Dollinger 2001: 35f), and even Drobnak’s (1994) innovative recent attempt to apply the criteria of Natural Morphology to OE *ge-* may at best be considered to lead to inconclusive results.

Having discussed a wide array of functions and meanings, we still have to propose – independently of school of thought - yet another class for those *ge-* tokens that have defied classification. Kastovsky (1992: 380) calls these the idiosyncratic uses of *ge-*, (4), of which OE *standan* ‘to stand, stand firm’ vs. *gestandan* ‘to endure, last’ is one example.

We have briefly reviewed the literature. When we compare this very concise summary of the research with Somner’s comprehensive dictionary entry, we find - with the exception of Lindemann’s idea and some notions of *ge-*
occurring in certain grammatical environments - all functions and meanings already there.\textsuperscript{10} We have come around full circle and may say that after almost three and a half centuries of research into OE \textit{ge}- we know comparatively little more than at the beginning.

What is responsible for this apparent lack of progress? There are two possible explanations. On the one hand, \textit{ge}- may be an item that has been used in an exclusively stylistic way. This is an option we can always resort to if everything else fails, but it should not be adopted too hastily. On the other hand, however, the processes revolving around \textit{ge}- could be too complex to be tackled by simple functionalist stances that assume a function for each and every linguistic item at all times. In other words, the theories applied to \textit{ge}-, either explicitly or more often implicitly, may have been unable to provide a proper framework for this linguistic phenomenon.

It has already been said that all theories on the decline of \textit{ge}- center around proposed functions and meanings. What they have in common is that all these theories have the speaker at their center. The focus on the speaker has given rise to lines of argument like the following: if the meanings or functions of an item are no longer transparent to the speaker, why should the item be kept in the system of the language, causing the speakers to invest articulatory energy for little or nothing?\textsuperscript{11} The consequence seems to be a decline of the linguistic item.

So far so good, but this reasoning raises one question: If \textit{ge}- was such ‘an important thread’ in OE, how could it even come close to dying out? At one point in time \textit{ge}- was important for the linguistic system, at another it was not.

\textsuperscript{10} Please compare Somner’s entry in medieval Latin; the boldface emphasizes the most important meanings and functions:

\begin{quote}

[...]

We have since altered it from \textit{ge} to \textit{y} (and sometimes \textit{i}) which yet we seldom use in prose, but sometimes in poetry, for the \textit{encreasing of syllables}, as when we say \textit{ywritten, ydoluen, ycleped, ylearned, ybroken}, and the like.

(Somner 1659: s.v. “\textit{Ge}-”, boldface mine)
\end{quote}

\textsuperscript{11} The hearer would of course prefer a more redundant message, but if the speaker does not perceive any function or meaning in an item, the same applies to the hearer.
In this respect, *ge*- must have lost its ‘importance’ along the way. The question how this could happen remains largely unanswered in traditional accounts. Moreover, strict functionalist explanations as the one suggested by Lindemann do usually not answer the question how a linguistic item could lose its functions in the first place. This is what is called functionalist circularity (Lass 1980): if an item is part of a language, it must be meaningful; if it died out, it could not have been meaningful. The problem here is that without explaining these shifts of function or meaning we open doors to all kinds of speculation and ad-hoc explanations. As a consequence, whatever reason may seem appropriate from the speaker’s point of view may serve as an ‘explanation.’

As appealing as these functionalist lines of thought may be, they may be misleading. Roger Lass (1990) reminds us of the pitfalls of strict functionalist approaches, pointing out that not every linguistic item in a given language is actively ‘involved’ in communication at any given point in time.¹² Lass suggests that not the speaker, but the language system should be at the center of attention, as the following, more extensive quote, demonstrates:

Despite neo-Praguian [functionalist] claims [...] that there is a kind of ‘expense of energy’ in the maintenance of oppositions that predisposes to loss of items with low functional load, there is really no evidence whatever that linguistic systems have ‘thermodynamic’ properties of this kind. [...] The often bizarre and seemingly motiveless complexity of linguistic systems is, like many of their other properties, simply a matter of historical inertia. [Such items of bizarre complexity] persist because there is no particular problem in keeping them, and there may even be ‘work’ to do in getting rid of them. (Lass 1990: 99f, my italics)

The assumption that Lass criticizes here is that language is exclusively ‘built’ for the speaker (or hearer). As a consequence, linguistic items with a low functional load are ‘costly’ and would therefore have to be discarded from the language. However, what is forgotten in speaker-based accounts is that language is a complex system and that it may be quite a bit of ‘effort’ to remodel the linguistic system. Thus, exclusively functionalist approaches based on the speaker’s point of view which include principles like ‘expense of energy’ and articulatory effort may not – as appealing as they may be at first sight – lead us to further insights in such cases as that of English *ge*.-

¹² Communication has of course many different aspects: not only is important *what* we say, but also *how* something is said. Sociolinguistic functions and phenomena may be as important as or even more important than the plain message, but unfortunately we have little means to gather sociolinguistic information for older stages of a language like Old English. However, even if we take all aspects of communication into account, there are items in language that do not serve any synchronic function and are thus junk.
Of course, functionalist approaches are not without merit; as a matter of fact they have provided us with very useful concepts and I would neither dare nor want to come even close to such an assessment. But as long as we do not have additional criteria to judge the ‘importance,’ to stick to Lindemann’s term, of a linguistic item for a particular linguistic system at a given time, we are prone to formulating circular explanations. In assessing the importance of an item, its functions and meanings serve as a key. Roger Lass (1990; 1997: 309-24) has re-examined the strict functionalist paradigm and points, in analogy to biology, to the existence of junk. Junk-DNA is DNA that is copied from one genetic carrier to the other without having an effect on the organism at the time. At a later stage this junk may be ‘recycled’ and thus put to use and often times this junk is able to mutate faster than ‘functional’ DNA (cf. Lass 1997: 314). On the linguistic level, we have to deal with similar effects. The replicator approach enables us to incorporate these and other important findings into linguistic theory.

3. Replicator theory

So far we have frequently mentioned the term linguistic system and now it is time to examine this concept. What is the linguistic system and where does the system reside? The only plausible answer is that the system has its physical correlate in the form of nerve cells in the brain of each speaker/hearer (cf. Ritt 1995: 47-55). This is the point of departure for the replicator theory, which is based on the Darwinian principles of variation, selection and adaptation. The theory rests on two basic assumptions. The first is that linguistic knowledge is stored in the human brain in the form of cell-assemblies, more precisely in the connections between nerve nodes. Research in connectionism has shown that this scenario is highly plausible (cf. Bechtel & Abrahamsen 1991, Rumelhart & McLelland and the PDP Research Group 1986) and no linguist with any neurolinguistic inclinations would seriously doubt that today.

The second assumption, however, is more daring. The zoologist Richard Dawkins has shed light on the fact that Darwinian processes of variation and

13. However, not only ‘junk’ is able to be ‘recycled,’ also functional linguistic items are likely candidates (cf. Lass 1997: 318-24).

14. The following account takes advantage of Nikolaus Ritt’s “pioneering venture” (Lass 1996: 3). The faithful reader of VIEWS should be well acquainted with this approach (cf. Ritt 1995, 1996), as comments by Schendl (1996) and Lass (1996) are also found in previous issues.
selection are medium-independent. What is traditionally connected to genetics, may also apply to non-genetic processes – provided objective criteria are met. The second assumption the replicator approach rests on is based on this idea. Let me illustrate this briefly. Language, in the form of nerve cells, is comprised of disparate entities, nodes, that are connected with each other in specific and highly complex ways. In order for linguistic information to survive from one generation of speakers to the next, it must be copied from one brain to another, usually younger, one before the other organism disintegrates. The copying process is carried out by means of imitation, which results in – more or less – similar neuronal structures in the younger brain. Provided that a certain linguistic cell-structure manages to be copied faithfully it is a linguistic replicator.\textsuperscript{15} If the replicator manages to be copied for many generations, it is a very successful replicator. However, since no copying mechanism is 100% perfect - not even the mechanism that copies information from a computer RAM onto hard disk - variation is sooner or later bound to occur. If one of these competing variants appears to be better adapted to the intra- and/or extra-linguistic environments of the particular replicator, it will oust the other variant.

One more concept from biology is of prime importance in connection to our enterprise. So far, we have talked about adaptation, i.e. the evolution of a certain structure due to selection pressure. To take an example from biology, the lengthening of a giraffe’s neck to reach leaves higher up on a tree is a process of adaptation. However, evolutionary biology has shown us that not all evolutionary processes are adaptive processes. If a given structure or feature is not selected for, but merely re-used for a novel function, this process is called exaptation. Feathers are a good example. Originally, they were intended to preserve the warmth in an animal’s body, later they proved quite useful for animal flight (cf. Lass 1997: 318).

What does this all have to do with linguistics? Yet again, Roger Lass (1990) forged new paths when he transferred the concept of exaptation to linguistics. Just as there are biological features that may be exapted, linguistic items may be exapted too, i.e. re-used for a novel purpose, for which they originally had not evolved. Therefore, there are three options\textsuperscript{16} for a linguistic item that has lost its original function:

\begin{itemize}
  \item Selection are medium-independent. What is traditionally connected to genetics, may also apply to non-genetic processes – provided objective criteria are met. The second assumption the replicator approach rests on is based on this idea. Let me illustrate this briefly. Language, in the form of nerve cells, is comprised of disparate entities, nodes, that are connected with each other in specific and highly complex ways. In order for linguistic information to survive from one generation of speakers to the next, it must be copied from one brain to another, usually younger, one before the other organism disintegrates. The copying process is carried out by means of imitation, which results in – more or less – similar neuronal structures in the younger brain. Provided that a certain linguistic cell-structure manages to be copied faithfully it is a linguistic replicator.\textsuperscript{15} If the replicator manages to be copied for many generations, it is a very successful replicator. However, since no copying mechanism is 100% perfect - not even the mechanism that copies information from a computer RAM onto hard disk - variation is sooner or later bound to occur. If one of these competing variants appears to be better adapted to the intra- and/or extra-linguistic environments of the particular replicator, it will oust the other variant.

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\begin{itemize}
  \item Dawkins coined - in analogy to the gene - the term ‘meme’ for these cultural replicators. However, since the term has occasionally been misinterpreted grossly, I prefer to use the term replicator.
  \item Of course no agent is involved in evolutionary processes. If the impression is being created, this is due to sloppy use of language (cf. Aitchison 1987: 19; Dennett 1993).
\end{itemize}
(i) it can be dumped entirely;

(ii) it can be kept as marginal garbage or nonfunctional/nonexpressive residue (suppletion, ‘irregularity’);

(iii) it can be kept, but instead of being relegated as in (ii), it can be used for something else, perhaps just as systemic. (Lass 1990: 82)

Lass’ innovative transfer does away with the strict functionalist concept that every item must have a function at any time. Option (iii) describes expectation, which will be of importance in the case study.

It should have become clear that linguistic replicators have little to do with genetic information, as they are neural networks in the brain. One of the first questions to answer in linguistic evolution is whether a linguistic unit may at all qualify as a linguistic replicator. Richard Dawkins (1989: 24) has provided us with three criteria to identify replicators, in our case linguistic replicators. The first criterion is longevity: in order to qualify as a linguistic replicator, an entity must manage to be copied from generation to generation and remain unchanged. In the case of a successful replicator, it is copied for a fairly long time. In order to do that a copying mechanism of high fidelity is needed to ensure that one’s own copies are not going to be one’s potential rivals. This is Dawkins’ second criterion that is complemented by a high rate of fecundity as the third criterion: grossly simplifying the issue, one may say that the more copies the replicator creates of itself, the better are its chances for future replication. Considering these criteria, Ritt (1995: 47-53) has identified some phonemes as linguistic replicators, since phonemes like /w/ in words like PDE children, bit, middle have remained unchanged since ME times.

Let us apply Dawkins’ three criteria in order to identify if ge- was a replicator. The first of which, longevity, has already been mentioned briefly and we know that the prefix ge- was ousted from the English language. However, this does not rule out ge- as a candidate. We have evidence of cognates of ge- as early as the 4th century AD in Gothic and it is as good as certain that ge- was part of the earliest stages of OE in the 5th century. Shortly before its demise, ge- was still attested in the ME of around 1500. Our prefix, therefore, meets the criteria of longevity through a millennium of continuous usage in

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17. This is not to deny a possible genetic basis for the language faculty, but this is a discussion treated elsewhere (cf. Deacon 1998) and of comparably little importance for language change. In any case, brain tissue has to be genetically coded as the stratum of cognitive processes.

18. For the most detailed analysis to date about which linguistic items qualify as replicators see Ritt (2001: 205-40).
the English language. The second criterion is fecundity. There is ample evidence that the prefix was one of the most frequently used, especially between 900 AD and 1200 AD. Thus, for some time in the first millennium of English, it must have been a highly ‘fecund’ prefix, generating many copies of itself in the brains of younger generations. The third criterion is the need for a copying mechanism of high fidelity to ensure that one’s inexact copies do not too often become one’s competitors. The prefix appears in several distinct forms. In rough outline, we can say that it appeared first as ‘gi-,’ then ‘ge-,’ followed by ‘i-,’ and ‘y-.’ While the criteria of longevity and fecundity are certainly met, the criterion of copying fidelity is an interesting case, as the different forms of ge- are also competing with each other. These changes in form, however, still allow us to identify the various forms of the prefix as forms of ge-, since no change in function was involved; and moreover, the changes are due to regular sound changes (cf. Pilch 1951/2: 16) that proved one form to be better adapted than the other. Leaving aside the aspect of ‘internal’ competition of forms of ge- for the purpose of this paper,19 we conclude that ge- meets all three criteria for our level of abstraction and that ge- qualifies as a linguistic replicator on the morphological level. Now we are ready to test the replicator theory in a case study.

4. Case Study20

The present study is one of the first studies on ge- to be carried out with the aid of an electronic text corpus. The Helsinki Corpus of English Texts: Diachronic and Dialectal (11-file version) proved to be an excellent research tool, which was complemented for period M1 with the more comprehensive data of the Pennsylvania-Helsinki Corpus. As a result, the study can draw, on the one hand, from a wide variety of historic texts at its basis and, on the other hand, take a look at ge- from the beginnings of Old English to 1500 AD in eight subperiods. One of the few comparable studies is Horgan (1980), which is based on a traditional text corpus drawn from only four manuscripts.

19. It would certainly be interesting to attempt a description of these formal changes in the framework of the replicator theory. Traditionally, there are two opinions: Luick ([1964]: §451) assumes that loss of meaning of a prefix was the precondition for its demise; in relation to OE ge-, however, Pilch (1955: 47f) expresses the more popular opinion that the formal reduction of ge- was the prime condition.

20. The analysis presents the most important findings of my MA-thesis (Dollinger 2001). For work in phonology in the replicator paradigm, see Ritt (2001, 1997a, 1997b).
For the study, the Helsinki Corpus’ eight OE and ME periods were used (cf. Kytö 1991: 49 – cf. table 1):

**Table 1.** Data periods and number of ge-tokens per period

<table>
<thead>
<tr>
<th>name of period</th>
<th>dating from ... to ...</th>
<th>number of ge-tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1 (Old English 1)</td>
<td>850</td>
<td>36</td>
</tr>
<tr>
<td>O2</td>
<td>850 – 950</td>
<td>40</td>
</tr>
<tr>
<td>O3</td>
<td>950 – 1050</td>
<td>43</td>
</tr>
<tr>
<td>O4</td>
<td>1050 – 1150</td>
<td>38</td>
</tr>
<tr>
<td>M1 (Middle English 1)</td>
<td>1150 – 1250</td>
<td>64</td>
</tr>
<tr>
<td>M2</td>
<td>1250 – 1350</td>
<td>58</td>
</tr>
<tr>
<td>M3</td>
<td>1350 – 1420</td>
<td>57</td>
</tr>
<tr>
<td>M4</td>
<td>1420 – 1500</td>
<td>24</td>
</tr>
</tbody>
</table>

Table (2) lists the 14 categories relevant for this paper for two ge-tokens from period O3:

**Table 2.** The 14 most important categories

<table>
<thead>
<tr>
<th>ID</th>
<th>Period</th>
<th>Form</th>
<th>Composite Meaning</th>
<th>Word Class</th>
<th>simplex attested</th>
<th>Rivalled by zero (simplex)</th>
<th>frequency ge-vs.zero</th>
<th>internal meaning competitors</th>
<th>morpho-semantic structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>O3</td>
<td>geaxian</td>
<td>to ask</td>
<td>inf.</td>
<td>Yes</td>
<td>Yes</td>
<td>2/2</td>
<td>none</td>
<td>ge + ax + i + an</td>
</tr>
<tr>
<td>3</td>
<td>O3</td>
<td>gebletsod</td>
<td>blessed</td>
<td>adj.</td>
<td>No</td>
<td>No</td>
<td>9/0</td>
<td>p2ending</td>
<td>ge + blets + od</td>
</tr>
</tbody>
</table>

Most of these categories should be self-explanatory, but some principles of analysis shall be demonstrated briefly. In our example, the simplex of geaxian is axian, and the respective field lists if the simplex is attested in any period of the Helsinki Corpus. In the particular period, O3, both geaxian and axian occur two times (frequency of ge- vs. zero). There is no word-internal

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21. The case study was carried out in two stages. First, the results of a pilot study on periods O1 through O4 were taken as a basis to design the main study (cf. Dollinger 2001: 98-101). The data were gained by a controlled random sample: the ge-tokens were first selected at random for each period, but each sample was checked to ensure similar proportions of the OE dialects than in the overall data (cf. ibid: 96-8). Samples of around 40 or 60 ge-tokens per period, with greater numbers in the ME periods to increase the chances to pin down changes, were analyzed in 36 categories, of which 17 were used in Dollinger (2001).

22. The percentage of ge-s in M4 is so low that extending the sample to 40 would not have been in any proportion to the other subperiods.

23. NB: The data of each ge-token is presented in two lines – cf. ID-#.
competitor for the function of ge- in geaxian. Since no function of ge- could be established, its stylistic use dominates (styl.=1; lower degrees of function were not included in the present analysis). OE geaxian may be morphosemantically analyzed as ge + ax + i + an. In the case of gebletsod, its related verb is bletsian; finally the concrete utterance is provided. The category ‘function or meaning of ge-’ needs some elaboration. To assess the functions or meanings of the prefix, the results of the comprehensive literature research were taken as a starting point. For one of the most important categories, ‘function and meaning of ge-’, the following classes were used for the analysis: no function, nominalization (O1 gewrit ‘writing’), fossilized lexical item (O3 genoh ‘enough’), collectivity marker (O3 gesceafa ṭa ‘creation, creatures’ ModHG Geschöpfe), marker of the past participle, henceforth ‘p2marker,’ (M1 iernod ‘earned’), past tense marker (- based on Drobnak (1994), O2 gesaeh ‘saw’), other function (e.g. O2 gefylle ‘to fill’ as a verbal marker). A further step of abstraction leads to the three core categories for functions and meanings of ge-, i.e. grammatical, lexical and stylistic uses.

5. Interpreting the data in the light of the replicator theory

Central to the replicator approach is the notion of competition. Different replicators are competing with each other over a limited number of ‘slots’ – the replicators’ physical bases – in the neural network (cf. Ritt 1995; 1996). The particular replicator fulfilling a given ‘function’ – in the broadest sense of the word – which is better adapted to the constraints of the linguistic environment is expected to win out. On the basis of the replicator theory, six hypotheses were formulated. The three most important ones I would like to introduce here (cf. Dollinger 2001: 109f). These predictions are:

1. competition between ge-tokens and simplexes (word-external competition): if a ge-compound is rivalled by a simplex in function or meaning, ge- is more likely to be pushed back.

2. competition between ge- and other morphemes that comprise the ge-token: if two morphemes mark the same functions/meanings, they are competing with each other over that function. Decrease of function/meaning of one morpheme should result in an in-

24. Comparing these categories to the functions and meanings in the literature, we see that the function of ‘deictic device (to, away),’ and ‘transitivity marker’ were not used in the main study, due to the findings of the pilot study (cf. Dollinger 2001: 98-101). Moreover, the category ‘verbal marker’ proved to be a dead end in the main study. For a detailed illustration of the categories and further examples, see Dollinger (2001: 101-9).
crease of the competitor. (1) and (2) may imply the development of evolutionarily stable equilibriums between competitors for a particular function.

(3) the properties of a linguistic replicator would be expected to have its effect on the linguistic level, i.e. since it is of advantage for a replicator to be activated as often as possible the various ge-types across the word classes are expected to be linked in one way or another. This neuronal link may have an expression on the linguistic level.

Let us begin the discussion of the results with a picture of the functions and meanings of ge-, which are organized along rough lines. I have put them into three broad categories: its lexical use (e.g. signifying ‘with, together’), grammatical use (e.g. marking the past participle), or where it is used as a stylistic device (e.g. O2 gebete and O2 bete, both ‘give, pay – imperative,’ occurring in the same text or sometimes even in the same sentence).

As figure (1) illustrates, the function of a lexical marker declines relatively constantly from O2 (2) through M3 (7), while on the other hand the grammatical functions of ge- are extraordinarily successful during these periods. This function, however, is almost identical to its use as a marker of the past participle (p2marker). Moreover, after period O2, one could almost speak of
an indirect proportional relationship of grammatical and stylistic use: to the extent that *ge-* gains ground as a grammatical marker, its stylistic use diminishes. This is a highly remarkable development from O2 to M4, i.e. over 600 years in the development of English, that needs to be discussed.

5.1 Word-external competition: compound vs. simplex

Put simply, we may ask if and to what extent *gefaran* ‘means’ the same as *faran*. In order to answer the question, if and to what extent *ge*-tokens, e.g. OE *gefaran*, are rivalled by simplexes, OE *faran*, in function and/or meaning, figure (2) provides us with the data. In figure (2) we find evidence for a sharp increase of competition between compounds and simplexes in period O3 (3). Period O3 is of special importance in the development of *ge-* as we find all-time (or near all-time) highs in all three categories of competition depicted in figure (2). For one thing, the percentage of simplexes that rival compounds in the same manuscript is the highest in O3.

For another thing, the percentage of base forms that rival *ge*-compounds is with 63% almost at an all-time high (the line in the middle – only M4 features a higher percentage with 67%). However, in more than 80% of all cases, simplexes that are rivalling *ge*-compounds do not serve other functions. This can be seen in the top curve, which is the percentage of base forms (out of all oc-
curring base forms) that substitute for the compound. In O3, we find an undisputed all time high at 82%, so that over 80% of all simplexes, e.g. OE fa- ran, rival their respective ge-compound, e.g. OE gefaran.

On the basis of the data in figures (1) and (2), one can say that the doom of ge- would have already been sealed in period O3, had it not been for the subsequent sharp increase in marking grammatical function. We may interpret the data saying that ge- managed to survive by specializing as a grammatical marker and adapting to the selection pressures this way. It is time to differentiate more closely between the particular functions and meanings. Table (3) shows that in the earlier periods (O1 - O3) the primary functions of ge- were nominalization, fossilized lexical item, and collectivity. However, beginning in O4, ge- is already predominantly used as a marker of the past participle (p2marker). Considering the data for the older three main functions, we may say that O4 is a period of transition. However, p2markers were on the rise so that in M3 they were to account for 88% of all ge-tokens and, moreover, comprise almost exclusively the grammatical functions of ge-.

**Table 3.** Functions and meanings of ge- in percent (.12 = 12%)

<table>
<thead>
<tr>
<th></th>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
</tr>
</thead>
<tbody>
<tr>
<td>no function</td>
<td>.56</td>
<td>.30</td>
<td>.58</td>
<td>.42</td>
<td>.22</td>
<td>.12</td>
<td>.02</td>
<td>0</td>
</tr>
<tr>
<td>nominalization</td>
<td>.19</td>
<td>.15</td>
<td>.09</td>
<td>.11</td>
<td>.02</td>
<td>.02</td>
<td>.04</td>
<td>0</td>
</tr>
<tr>
<td>fossilized lexical</td>
<td>.08</td>
<td>.20</td>
<td>.14</td>
<td>.11</td>
<td>.16</td>
<td>.07</td>
<td>.07</td>
<td>.17</td>
</tr>
<tr>
<td>collectivity</td>
<td>.11</td>
<td>.05</td>
<td>.05</td>
<td>.03</td>
<td>0</td>
<td>.02</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>p2marker</td>
<td>.03</td>
<td>.13</td>
<td>.14</td>
<td>.32</td>
<td>.56</td>
<td>.79</td>
<td>.88</td>
<td>.83</td>
</tr>
<tr>
<td>past marker</td>
<td>.03</td>
<td>.08</td>
<td>0</td>
<td>.03</td>
<td>.02</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>other</td>
<td>0</td>
<td>.10</td>
<td>0</td>
<td>0</td>
<td>.03</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Periods O3/O4 mark the beginning of a new trend. These data fit very neatly in the framework of the replicator approach. One is reminded of the concept of exaptation here. Let us recall Lass’ (1990: 80) definition: exaptation is the novel use of a “feature whose origin is unrelated or only marginally related to its later use”.

If we take a look at our data, we find that the use of ge- as a p2marker was not novel to period O3. Thus, we would hesitate to assume too readily a process of exaptation:

**Table 4.** Derivation via the past participle-p2makers in different word classes
The last line gives the percentages of *ge*-s that served as a p2marker in each period, including all forms derived from the pp. We see that there are examples of the grammatical function ‘p2marker’ already in O2, before the sharp increase of this function. There is one example for a p2marker in O1, which is the adjective *gidroefid* ‘troubled,’ that is derived via the pp from the infinitive *drefan*. We may hypothesize that some forms of *ge*- were already in use as a p2marker, but that these were not very common, as they are not attested in the pp in O1. However, the mere fact that there is such an increase in this function starting in O2 and continuing until M3 (grey shading), indicates massive selection pressure that led to the drastic extension of an otherwise negligible function. If we recall the three primary functions of *ge*- until O3, nominalization, fossilized lexical item, and collectivity, we may safely say that the rise of *ge*- as a p2marker is a process of exaptation, where an item originally (and primarily) used for something else, is ‘recycled’ for a different purpose, in our case to help mark the pp. Ge- is exapted to help mark the past participle.

In the light of the data, we have good reason to conclude that *ge*- successfully managed to stay part of the English language as a marker of the past participle, which often occurred in conjunction with a p2ending. At the time, however, when *ge*- had managed to become the primary marker of the pp, in M2, the language was going down a different path, discarding to a greater extent of prefixes and thus also of prefixes marking the pp, when changing to syntactic marking of the pp in combination with a more rigid word order.

So far, we have discussed the area of harshest competition. At the other end of the spectrum, however, the processes must have been different. Let us suppose a *ge*-token that is not competed by a simplex. Because of this lack of competition and the proposed lethargy of the system it is expected to be lexi-

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25. On the other hand though, if OE *ge*- expressed the function of a perfectivity marker in West Germanic, contrary to the results of the more recent research in Gothic, an East Germanic language (Pilch 1951/2, 1952/3, 1955 or Lindemann 1970: 16 & passim), the newly acquired function of a p2marker may be, due to the proximity of the functions, an extension by analogy and not exaptation (cf. Lass 1990 for discussion). However, in the light of the present data, this is only hypothetical reasoning.
cally fossilized. Here, *ge*- is without function but became part of the system long ago: according to the replicator theory, we would predict that this *ge*-should manage to be copied from generation to generation. In the data, there are 5 *ge*-tokens that qualify for that category and all these prefixes, with the possible exception of the one in M2 *a-rysep*, have managed to survive into PDE:

- O3 *genoh, M2 i-nou > PDE enough*
- O3 *gelyfdon > PDE believe (*)*
- O4 *gelice > PDE alike*
- M1 *imong > PDE among*
- M2 *a-rysep > PDE rise/arise*

OE *gelyfdon* is an interesting case. Provided the suggested interpretation is correct, the prefix must have changed its onset. In some respect, however, all five tokens qualify as successors of a *ge*-token and therefore fulfil what was to be expected.

5.2 Word-internal competition: *ge*- and its internal rivals

So far we have dealt with what I call word-external competition, i.e. competition between different words. Now, we shall take a closer look at word-internal competition, i.e. the competition between different morphological parts of a word. Take the ModHG past participle *gesungen* ‘sung.’ Here, the prefix, the stem vowel /u/ and the ending {-en} mark the past participle and in this respect, they compete with each other. However, not all of them mark up the pp to equal parts. Evidence from some German dialects which reduce the phonetic realisation of the prefix or leave it unpronounced, suggests that the stem vowel and the ending mark the pp to a greater extent.

The same principle was applied to OE past participles. Here, two classes of *ge*-tokens were distinguished. These are, on the one hand, *ge*-pps that are rivalled in their function by a simplex, and, on the other hand, those that aren’t. The morphemes of a lexeme share the coding of the pp. In the pp O4 *geseald* ‘sold,’ *ge*-, the vowel <ea> (vs. <e> in the infinitive *sellan*) and the final dental ending mark the pp. The replicator theory predicts that if there is

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26. A systematic search for prefixed and non-prefixed successors and ancestors of the *ge*-tokens in periods O3-M2 was carried out with the help of the Helsinki Corpus.
27. Cf. Austrian German *gesungen* /’gsuN/, *gebracht* /’brOk/?, or *gekocht* /’kOk/ illustrate this process of reduction.
no internal competitor to mark up the pp, as in pp M2 ywant ‘wanted,’ ge-
should be more prominent in that function.

Figure (3) shows those ge-tokens that have no internal competitor, like M2
ywant ‘wanted,’ where ‘y’ is the sole marker of a function or meaning. Here,
we have two groups: one where the ge-token is not rivalled by a simplex
(zero), e.g. O3 gelimpe ‘misfortune, occurrence,’ resp. another group where it
is rivalled, e.g. M1 italde ‘told’ vs. M1 talde. The theory predicts that ge-
tokens that are rivalled in function or meaning by a simplex (zero) would
have to face word-internal competition in some form, e.g. that the function of
marking the pp would be taken over by a p2ending or a stem-vowel (stemV),
perfective consonant (perfC) etc.

This prediction is grounded in competition between these ‘internal mark-
ers’ of a particular function or meaning. However, in periods O1 through M1
(1 – 5 in figure 3) the trend is opposite to the one predicted. In these periods,
ge-tokens that are rivalled by zero are more likely to have no internal com-
petitor (in O2 the figures are the same). Only in periods M2 through M4 (5 –
8), the prediction is clearly verified, with ge-tokens not rivalled by zero beat-
ing those with competing simplexes.
This situation points to changing processes in the linguistic system. If we complement the data with yet another chart, this time the competition of *ge*- and the *p2*endings, we come to an interesting conclusion.

Yet again, periods M2 through M4 (5 - 8) go in line with the prediction, and periods O1 through M2, with the notable exception of O2, do not. To summarize, our data in figures (3) and (4) show that the prediction that competing items compensate for a non-existing *ge*-prefix is only true in periods M2, M3, and M4, and thus very late. In this interpretation, however, we have applied the more functionalist point of view of language change: If an item ceases to mark a linguistic feature, another one must compensate for it. In the replicator paradigm, we would say that another item managed to adapt itself better to the prevailing constraints. However, since this adaptation is not verified across all periods by the data, is the replicator theory wrong?

If the replicator theory were a strictly functionalist theory one could argue that it is faulty in this point. However, as a neo-Darwinian theory it has another element incorporated into its framework. We have come across Roger Lass’ view on dormant, latent parts in a language that are merely historic residues at one time, but are the material from which changes may start at another time. We have also identified an example of exaptation, where OE *ge*- managed to relaunch itself by specializing as a *p2*marker. However, the fact that
the prediction of the replicator theory is not corroborated in the earlier periods (with the exception of O2), does not refute the replicator theory. Why not?

We have claimed earlier that ge- served as a p2marker from period O2/O3. The fact that in periods O1 through M1 p2markers occur more often with p2endings than without them, points to a form of linguistic symbiosis between the two. We may call this an evolutionarily stable equilibrium, in analogy to a term from evolutionary theory coined by Maynard Smith (cf. e.g. 1992, & Dawkins 1990: 118-32 for a detailed illustration). The concept of equilibrium pays account to the fact that not everything is possible at any time for a given evolutionary entity, that it has to ‘act’ in accordance to its environment. In our case, ge- managed to become secondary marker of the pp in O2, while the various p2endings remained the primary ones. During its dramatic phase of expansion from O3 to M3 (cf. figure 1), ge- managed to become the primary marker of the pp by period M2. In between, ge- depended on the p2endings for ‘survival,’ and by the time it outbeat the p2endings, the English language had already gone down a different path to mark the pp. By M2, i.e. between 1250 and 1350, ge- was used extensively as a p2marker. However, exactly at that time, the “precondition for the borrowing of [French] affixes”, which was “massive lexical borrowing from French in later Middle English” (Marchand 1969: 258) was becoming effective and steered English toward a different cline, away from Germanic patterns of word-formation.

5.3 ge- on the neuronal level

The reader who had already been familiar with OE ge- or one of its Germanic cognates will have noticed that no differentiation between nominal, verbal and other forms of ge- has been made. This is grounded in another feature of the replicator theory. From the point of view of a replicator, it is of advantage to be activated as often as possible to enforce the neural connections and thus increase its fecundity and life-span. This means that the various forms of ge- on the linguistic level would have to be connected to the same node on the neural level, no matter if a speaker utters the noun OE gemeccan ‘companion’ or the verb OE (heo) gesinge ‘she sings.’ Such neural hard wiring would be expected to manifest itself also on the linguistic level. Therefore, an attempt has been made to trace back all ge-tokens to the verb, as this class seemed to be the most likely candidate. To provide an example, the ge-token in the phrase O4 þæm gebletsodan hlaf‘(by means of the) sacred bread/loaf,’ gebletsodan, was traced back to O4 bletsian ‘to bless.’ Table (5) provides us with the results (Ó):
Table 5. Percentages of ge-tokens that are verbal or deverbal

<table>
<thead>
<tr>
<th></th>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
</tr>
</thead>
<tbody>
<tr>
<td>O verbal ge-</td>
<td>.61</td>
<td>.74</td>
<td>.75</td>
<td>.63</td>
<td>.79</td>
<td>.82</td>
<td>.69</td>
<td>.67</td>
</tr>
<tr>
<td>O deverbal ge-</td>
<td>.25</td>
<td>.18</td>
<td>.14</td>
<td>.29</td>
<td>.17</td>
<td>.09</td>
<td>.23</td>
<td>.17</td>
</tr>
<tr>
<td>O</td>
<td>.86</td>
<td>.92</td>
<td>.89</td>
<td>.92</td>
<td>.96</td>
<td>.91</td>
<td>.92</td>
<td>.84</td>
</tr>
</tbody>
</table>

In 84 to 96% of all cases across all periods, a verbal counterpart for non-verbal ge- was found. Provided that assuming a direct link between the existence of a similar verb as evidence for a deverbal origin is not too simplistic, one question remains to be asked: What should we do with the 14% to 4% of all ge-tokens that cannot be put in relation to a verb at all? Should we propose the existence of a verb that has not come down to us? Under the light of derivational patterns like ModHG words like *Gestein* ‘(massive formation of) rocks,’ a derivation through a verb seems very unlikely, as ModHG *Stein* ‘stone’ is a more direct source than the verb *steinigen* ‘to stone somebody.’ Thus, we should interpret the above data with caution, being aware of some cases in which a deverbal derivation cannot be defended.

Nevertheless, we have found an intralinguistic indicator for the existence of one neural node depicting ge-. It may well be that a second ge-node - for non-verbal uses - existed and lost out earlier, as nominal ge- decreased very early so that by period M1 (1150-1250) nominal ge- in words like *gefera* ‘ModHG *Gefährte*, travelling companion’ comprised less than 10% of all ge-tokens (table 6):

Table 6. ge- in nouns

<table>
<thead>
<tr>
<th>noun</th>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.31</td>
<td>.20</td>
<td>.16</td>
<td>.21</td>
<td>.08</td>
<td>.03</td>
<td>.04</td>
<td>0</td>
</tr>
</tbody>
</table>

Thus, we may assume that the decline of nominal ge- lead to an extension or generalization of verbal ge- on the neural level: where there were probably two nodes in O1, one for nominal ge- and one for verbal ge-, there was only one node, i.e. the one of verbal ge-, left in M4.

5.4 Taking stock and further questions

We have been reviewing the data in the light of the replicator theory on the basis of three core predictions. Prediction (1), word-external competition – section 5.1, was borne out with the scenario that ge- was about to leave the English language in O3 (950-1050) until it could launch its highly successful exaptation as a p2marker. Prediction (2), word-internal competition – 5.2, explained the slow process of ge- becoming a p2marker, showing that any re-
launch of a morpheme that was in use for function A, could only proceed slowly towards function B, possibly depending on evolutionarily stable equilibriums in cooperation with other items. Because ge- could establish a cooperation with p2endings to mark the pp, it ‘lived on’ for another 600 years. At the time when ge- had become the primary marker of the pp, however, its fate was sealed by linguistic interference that had its bearings on linguistic form, changing traditional word-formation patterns. Prediction (3), the attempt to trace back ge- to one neural node – 5.3, may be corroborated, indicating that it is indeed possible to find evidence for the existence of replicators on the linguistic level.

I hope I could demonstrate with this morphological example that Darwinism has falsely become a ‘dirty word’ (McMahon 1994: 314) in linguistics. Provided that biological concepts are thoroughly transferred to the cultural, in our case linguistic realm, I feel that neo-Darwinian linguistics can contribute a lot to a better understanding of our field. Neo-Darwinian principles provide principles that help narrow down the possible scope of descriptions and explanations, even though much work remains to be done.

I would like to address one more point. We have also seen that traditional accounts like Marchand’s conviction that wholesale borrowing from French destroyed Germanic patterns of word formation can be corroborated and easily integrated into the replicator approach. So what did we gain then? Some may ask themselves if the replicator theory is more than a new frame for an old picture. Yes, it is, because it bases linguistic phenomena on a plausible neuronal basis and helps pulling in scholars from other sciences on the quest for the language faculty. Now, the ball is also in the court of the neurolinguists to identify neural structures as linguistic replicators. The replicator theory opens up the field and it is hoped that it will give rise to many stimulating interdisciplinary discussions.

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Language attitudes of the young generation in Malta

Silvia M. Micheli, Vienna

Ghax il-flowers jekk ma tpoggie-homx sew ma jkunux nice. (Sciriha 1997:72)

1. Why Malta?

Despite its small size Malta is characterised by a highly complex language situation, which makes it worth a linguistic investigation. There is a series of burning issues that ask to be addressed. Which role do the varieties Maltese, Maltese English, Mixed Maltese English and Italian play in post-colonial Malta? What does the young generation, which has not experienced the rule of the British, think of the present language situation? Are Maltese pupils and students happy to be bilingual with Maltese and English in this new millennium or do they prefer one language to the other and demand the exclusion of one of them? Is there a language conflict or can the languages live side by side? These are questions this paper seeks to answer. For this purpose a field study based on a questionnaire involving 198 pupils mostly between fifteen and sixteen years of age was carried out in the northern part of Malta. The investigation was conducted over a two-month period (from February to April 2000) at two state and two private schools and its results were compared with the findings of a similar investigation carried out at the University of Malta during the same period of time.

1. Because the flowers, if you do not put them in a correct way, will not be nice.
2. This area was chosen deliberately in view of the fact that in this region people are much more in contact with English than people in the south of the island. Research was carried out in Birkirkara, Gzira, St. Patrick’s and St. Julians, the latter being Malta’s principle tourist resort.
3. The present paper is neither a representative nor a complete overview of Malta’s linguistic situation. It does, however, provide the reader with some notion about Malta’s linguistic situation, past and present, and about Maltese adolescents’ attitudes towards Maltese, English, Mixed Maltese English and Italian.
2. Historical and linguistic background

2.1. Historical development

Situated in the Mediterranean Sea, 93 kilometres south of Sicily and 288 kilometres north of Africa, Malta covers an area of 317.2 square kilometres. Its population is at a third of a million (cf. Clews, 2000:210) and thus represents the fifth largest population density in the world.

The linguistic situation in Malta is inextricably intertwined with its historical and political past. In the course of history this strategically important country has played a key role in the struggles for power over the Mediterranean and in the interplay of emerging Europe, North Africa and the Middle East. Malta’s chequered history is characterised by a series of dominions of several Mediterranean powers such as the Arabs (870-1090), the Normans (1090-1266), the Angevins (1266-1283), the Aragonese (1283-1410), the Castilians (1412-1430), the Order of St. John (1530-1798), the French (1798-1800) and the British (1800-1964). Especially the Arabs and the Knights of St. John left an indelible mark on the cultural and linguistic situation of the island. The majority of the population spoke Maltese, while Italian was the official language.

After Malta had become a British Crown Colony English was inevitably brought to the island. The colonial authorities adopted an assimilation policy that sought to promote relentlessly the use of English in two ways: by making it compulsory for advancement in the civil service and by introducing it in the school syllabus not only as a subject but also as a medium of instruction. The new regime introduced Maltese in schools, essentially "as a vehicle to teach English and thereby slowly eliminate Italian" (Frendo 1975:24). However, English language and culture took a long time to take root on the Maltese islands because the contacts between the colonisers and the native population were limited to the strictly necessary domains, which comprised essentially the administrative and military spheres.

From 1880 to 1939 the linguistic and cultural question culminated in a language battle that determined the political scene (cf. Frendo 1975:25). There was an acrimonious debate on the choice of a national language for Malta. In view of the material advantages to be gained from a proficiency in English, Maltese people started supporting English in the educational sector and, after much controversy, the language question was finally laid to rest in 1934. Maltese superceded Italian as the official language of Malta together with English.
Today, the Nationalist government recognises the importance of Malta’s national language in principle and in practice and is trying to promote it in education and administration in order to prevent its extinction (cf. Hull 1993:114).

2.2. The language situation today

Although Malta is a small island the present language situation is multifaceted. The most important linguistic varieties are Maltese, Maltese English and Mixed Maltese English.

Maltese belongs to the Semitic family of languages, more precisely to the North African dialect group of Arabic. Some linguists believe that it has Phoenician-Punic origins. This belief, however, has become very controversial. The development of Maltese is reflected in its structure, which can be described in terms of three strata: the Semitic stratum, the Romance superstratum and the English adstratum. English still constitutes the most important direct influence on Maltese today, at least as regards lexis (cf. Mifsud 1995:27).

In geographical terms some differentiation can be observed within Maltese and not only between the Maltese spoken in Malta and that spoken in Gozo but also from village to village. The variety spoken by the people living in Malta’s capital Valletta and its suburbs, in particular Sliema, gradually developed into a "superposed variety as it took on the nature of a social class dialect" (Borg 1980:2). This specific variety is called Standard Maltese. It is to be noted, however, that there are quite a number of variants which would all be regarded as Standard, that is to say that the term "Maltese" does not refer to a homogeneous variety but rather to a number of Maltese dialects.

The designation ‘Maltese English’ was used for the first time by Broughton (1976) (cf. Borg 1980:4) to describe the variety of English spoken by the Maltese population. It is characterised by a certain degree of interference from Maltese on a grammatical, phonological and semantic level. The emergence of this variety is probably due to the physical isolation of Malta, which renders the acquisition of English difficult. According to Hull (1993:366) this type of English can undoubtedly be compared with Indian and Pakistani English, which means that with a few exceptions it is fairly unidiomatic and perceived as rather strange by native speakers of British, American and Australian English.4 Rather than a clearly defined homogeneous variety,

4. This, however, does not imply that Malta, like India, fails to produce speakers and writers with a perfect mastery of English.
Maltese English has to do with gradation and is to be seen as a continuum of different speech styles. From a sociolinguistic perspective, Maltese English is not yet accepted as a localised variety of English because socially undesirable.

The term ‘Mixed Maltese English’ was introduced by Borg (1980) to indicate a mixture of English and Maltese involving various types of code-switching. It is a common form of interaction especially among a number of Maltese parents and their children, among university students, people who live in the area of Sliema and in the classroom (particularly in state schools), where explanations of written English texts are given in Maltese since the textbooks are in English and the children coming from a Maltese-speaking background hardly understand English. Borg (1980:5) states that Maltese people actually use Mixed Maltese English when they speak "English" among themselves. Moreover, they use this variety even in conversations with English speakers.

The following comment made by an informant of middle-class background perfectly illustrates this linguistic situation:

If a fellow Maltese starts speaking English to me, I follow suit, but many a time we end up speaking a mixture of Maltese and English. I speak Maltese to the doctor, solicitor etc. with the occasional English phrase interferences. Sometimes in an effort to express myself better, I use the English idiom. Maltese, at times, somehow lacks certain expressions. I talk Maltese to my children nowadays with English expressions. My son addresses his Maltese friends in Maltese or English depending on the social status of the individual. His Sliema friends he generally addresses in English, especially the girls. I find reading English more pleasant than Maltese ... If I were to leave a note for a tradesman I’d probably write it in Maltese. The middle-class Maltese I am acquainted with generally write in English if they send you a postcard, a Christmas card, an invitation card or a letter. (Hull 1993:113)

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5. Parents frequently use this mixture in order to prepare their children for entrance to a private church or private independent school, where lessons are generally held in English. This shows that English is seen as a means of reaching upward social mobility for parents and their children.

6. The issue of the medium of instruction is a very sensitive and complicated one. Some people show preference for English while others are in favour of Maltese. Both Maltese and English are used as languages of instruction across the curriculum in Maltese schools. The new National Minimum Curriculum published in December 1999 recommends that at secondary level Maltese, Social Studies, History, Religion and PSD are taught in Maltese, that foreign languages are taught in the language in question and that the language of the remaining subjects such as Mathematics, Science, Technology etc. is English.

7. It should be noted that in particular Maltese-speakers with English as a second language are referred to here.
2.3. Functions and domains of language use

The above quotation leads us to the question of the functions and domains of language use. In order to elucidate the present language situation, language use in different domains was observed and a few informal interviews have been conducted with teachers, pupils, university lecturers and students.

Analogous to many other bilingual countries, the two languages in Malta are not used equally in all domains. Being the national language, Maltese has been enforced in most sectors of public life, including Parliament, the Law Courts, the Church, the press, national and cultural activities. Furthermore, it is the mother tongue of the majority of the population and is spoken within the family, with relatives and friends. By contrast, English, Malta’s second official language, is used for business, written correspondence, for tourism, international communication and for educational purposes (especially in private schools). While English serves prevalently as written medium, Maltese is mainly used as oral medium.

In Parliament, debates are held and recorded in Maltese. Interestingly, the Maltese register of politics, like that of legal and literary studies, is very much influenced by Italian (cf. Camilleri 1995:81). Politicians address their supporters in Maltese except when foreigners participate in the interaction. According to the Constitution of 1934 the main language of the Law Courts is Maltese and it is also the language one is expected to use in this domain. Yet, all the documents referring to laws are bilingual.

As far as the Civil Service is concerned, English is prevalently used for administrative written work in Government departments, ministries, banks, hospitals and private firms. Despite this fact, governmental departments and ministries were asked to use more Maltese and indeed a growing number of written official correspondence, such as letters from a bank or a school are bilingual or sometimes even in Maltese. Of particular note is the fact that forms like bank cheques or library forms are in English but people often fill them out in Maltese or even in Mixed Maltese English. Conversations in public places such as offices and banks usually take place in Maltese. However, some employees prefer to use English when talking about specific topics that require technical terms. Information addressed to the public must also reach foreign residents and sometimes tourists and must therefore be in English. Noteworthy is the fact that in some cases feelings of identification can lead to the choice of bilingualism or to a selective use of Maltese (cf. Mazzon 1992:27). Some typical examples of the choice of bilingualism would be signs in post offices, signs in buses and at the airport and street names. How-
ever, these examples also involve a remarkable oscillation between the two languages. Street names are of particular interest because a visitor will notice that some plaques are bilingual and others are in Maltese only. People in Malta and also employees in the local councils do not seem to be aware of the inconsistency that reigns in this field. In spite of the fact that most street names today are in Maltese, often the English version is used when writing addresses on letters and postcards because according to a law student "it sounds better and a bit more upper class". Most of the other signs such as names of shops, special offers and road signs are in English.

With regard to religion, it can be said that the Catholic Church has always held an influential position in Malta. Until a few decades ago the language of religion was Italian alongside Latin due to the strong connection with the Church and the Pope in Rome. Today the language of the Church is prevalently Maltese.

In the area of economy and trade English is used in connection with foreign companies and industries. All the receipts, contracts and documents are in English because most of the technical terms do not exist in Maltese. We must not forget that English performs an important function in the main industry, i.e. that of tourism. In fact, almost everyone who works in this sector is competent in English. This is also thanks to the large amount of exposure they have to native speakers. In shops, factories and offices, English is predominant in its written use. In a shop for instance announcements are in English (e.g. Big Reduction), while interactions occur mostly in Maltese. However, it has been observed that in some places of work people converse in both Maltese and English. Geographically speaking, people who work in the more touristic areas of Malta display a better knowledge of English and are also eager to speak it.

With regard to mass media, an important economic aspect regarding English has to be taken into account: Malta imports a large number of books, films and TV programmes from English speaking countries. It offers a vast range of TV programmes from nine local stations. On all the stations, all locally produced programmes such as educational programmes, quizzes, games, news and sports are in Maltese, while foreign produced programmes such as films, documentaries and soap operas are in English. They are relayed without any dubbing and in contrast to other ex-colonies such as Singapore they are not subtitled. Regarding the radio, The Times, Malta’s most popular daily newspaper lists nineteen local and two international radio frequencies. The majority of the local private and state-owned radio stations broadcast in Maltese, while a few local private radio channels transmit their programmes in
English. As regards the press, four daily newspapers are published, of which two are in English (The Times and The Independent) and two in Maltese (L-Orizzont and In-Nazzjon). The advertisements in these newspapers are generally in the language of the newspaper. In the Maltese newspaper, however, one sometimes comes across some English ads. Table 1 presents a schematic overview of the use of Maltese and English in speech and in writing provided by Camilleri (1995:100).

**Table 1 Use of Maltese and English**

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The language of education in Malta seems to be English. It tends to be preferred as a medium of instruction especially at higher levels of the educational system such as university. However, the issue of the medium of instruction is a very sensitive and complicated one. Some people show preference for English while others are in favour of Maltese. Both languages are used as languages of instruction across the curriculum in Maltese schools. The new National Minimum Curriculum published in December 1999 recommends that at secondary level Maltese, Social Studies, History, Religion and PSD are taught in Maltese, that foreign languages are taught in the language in question and that the language of the remaining subjects such as Mathematics, Science and Technology is English. Since nearly all textbooks and teaching materials are imported from the UK, the majority of the reading and writing activities in class take place in English. Nevertheless, explanations and discussions often occur in Maltese. Examinations are held in English with the

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8. What actually happens in the classroom is that teachers and pupils in primary and secondary schools often interact in a mixture of Maltese and English in both types of
exception of Maltese language and literature. For entry into University a pass in Maltese (MATSEC) is required.9

As far as Italian is concerned, it has no longer been an official language in Malta since 1934, and in contrast to English and Maltese it does not play a role as a medium of instruction in schools. However, it is understood by a large percentage of the population and is spoken in a comprehensible way by a part of it. Furthermore, a considerable number of Italian TV channels can be received and are very popular. Many children are exposed to cartoons and other programmes on Italian TV stations for several hours per day. Imitating the situations of the cartoons on television, these children instinctively start speaking Italian amongst themselves and acquire a certain competence in this language at a relatively early age (Camilleri 1995:86). The passive knowledge of Italian acquired through the exposure to Italian TV supports Maltese children in their acquisition of Italian at school. Apart from Italian TV and Italian as a second language at school there are some other factors that stimulate the knowledge of Italian. One of them is tourism, since many Italian tourists travel to Malta. Besides, a good percentage of the Maltese like to travel to Sicily, which can be reached within a few hours and also to Rome, which is only one hour’s flight away (Camilleri 1995:86).

A further aspect influencing the knowledge of Italian are immigrants from Italy. They have always played a significant role in the past because they revived the contact to Italian culture. Professionals, soldiers, members of the clergy, merchants and craftsmen in particular have constantly increased the Maltese vocabulary through their speech (cf. Brincat 1992:4). According to the Embassy and the Italian Cultural Institute in Malta there are approximately 1,100 Italian residents in Malta today. 80% of them come from Sicily and the majority of them are married to a Maltese citizen. They have moved to Malta primarily for economic reasons. In fact, many work in the Italian military mission. Children of Italian immigrants either attend the Italian School, the Verdala International School or the European Community School.

All these factors indicate that Italian still plays a considerable role in Malta. However, in view of the introduction of cable TV in about 60% of Maltese households in 1992, it will not be easy for the Italian language to maintain its popularity. According to Brincat (1998:57) the next generations

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will be less exposed to Italian TV and this will have negative implications for
the number of students studying Italian at school and at University.

3. The field study

3.1. Research questions

The main purpose of this field study was to find out which attitudes Maltese
pupils harbour towards English, Maltese, Mixed Maltese English, and Italian.
The hypothesis underlying my investigation was that there are differences in
pupils’ attitudes towards the languages they are in contact with according to
type of school, sex, language background, socio-economic and educational
background.

The study undertaken was set to investigate whether today English is still
seen as the language of prestige and education and whether Maltese is con-
nected with solidarity and attractiveness, since in typically bilingual situations
prestigious majority languages are seen to be connected with higher status and
competence and minority languages with greater integrity, attractiveness and
solidarity. The underlying assumption of several attitudinal investigations is
of language competition, i.e. that one language threatens the other. "This
tends to suggest a deficiency model of bilingualism." (Baker 1992:77) It
would be interesting to find out whether Malta is also characterised by such a
language competition.

A further aim of this thesis was to find out pupils’ attitudes towards the
variety Mixed Maltese English. In many communities code-switching has
been stigmatised both by ingroup as well as by outgroup members. Cross-
culturally, code-switching has frequently been described as a corruption of a
language, as a gruesome mixture ascribed to lack of education and incorrect
mastery of the second language. In Malta people seem to be quite aware of
this phenomenon. In fact, the term code-switching also turns up in the Maltese
national curriculum and studies have shown that many university students and
teachers admit to mixing the languages in everyday conversation.

Also language choice was taken into consideration. It is important to rec-
ognise that pupils were asked to indicate their language behaviour and that
sometimes their beliefs or behavioural intentions\textsuperscript{10} were elicited rather than

\textsuperscript{10} While Agheyisi and Fishman (1970:139) regard belief as a cover term for both cogni-
tive and action elements, Fishbein and Ajzen (1975:12) use the term belief for the cog-
nitive element and the term behavioural intention for the active component (cf. Smit
their actual behaviour. Nevertheless, we should keep in mind that the concept ‘belief’ is very close to that of ‘attitude’, belief being the cognitive element of attitude. Therefore if beliefs are elicited they still have to do with attitudes. Another way in which language choice and attitudes are related is that language choice mirrors a certain attitude. In fact, language reflects the self-concept of the speaker. In other words, one chooses a type of language according to the image one wants to convey. Here attitudes come into play. Unquestionably, the language one speaks is influenced by the background of the speaker and the language chosen determines whether one is accepted by the society or a group of people. In this respect language is an identifier of a person that identifies a speaker as belonging to a particular group of society (cf. Mifsud 1993:18). Thus, if informants are consistent in reporting their own language choice, their patterns of language use also reveal something about their attitudes. If pupils are not consistent in reporting their own language choice and tend to over-report, their answers can be seen to a certain extent as part of language attitudes.

3.2. Method

The theoretical framework of this investigation is provided by a socio-psychological mentalist approach, according to which attitudes comprise three components (cf. Baker 1992:12-13; Agheyisi-Fishman 1970:140): the feelings towards the attitude object (affective or evaluative component), the thoughts and beliefs about it (cognitive or knowledge component) and, ensuing these, the predispositions to act in a certain way (conative component). In addition, one part of the study is based on the approach adapted by Ellen B. Ryan and Howard Giles in their book *Attitudes towards Language Variation* of 1982, which focuses on speaker evaluation studies, that is on "evaluative reactions towards different language varieties or their speakers" (Ryan-Giles-Sebastian 1982:7).

In order to gather the informants’ attitudes a fivefold questionnaire comprising both direct and indirect data-gathering methods, closed and open questions was devised. As to the closed questions the main technique chosen to measure attitudes was the Likert scale, which provides a measure of intensity. The respondents were asked to indicate a degree of agreement or disagreement on a five point scale. However, the ‘undecided’ (also ‘neutral’ or ‘indifferent’) category was eliminated in order to force the informants to choose between favourable and unfavourable stances.
The first part of the questionnaire consisted of twenty-three attitude statements concerning language preference, education, success in one’s professional career, status and prestige, and solidarity. These attitudinal statements were homogeneously classified along two semantically determined dimensions: the competitive and the co-existing dimension.

The opinion statements were translated into Maltese with the aim of making the first part of the questionnaire bilingual with English and Maltese as compensation for the lack of knowledge of Maltese on the part of the interviewer. This bilingual section should reduce the informants’ impression that English is the more desirable and prestigious variety, which is to be used in formal contexts like education.

With regard to the adjectival opposites describing English and Maltese, which were included in the first part of the questionnaire, some previous language attitude studies conducted by Oskamp (1991), Oppenheim (1992) and Smit (1996) were taken into consideration. Based on these surveys the following attributes were chosen: easy vs. difficult, beautiful vs. awful, intellectual vs. plain, important vs. unimportant, emotional vs. unemotional, precise vs. vague, useful vs. useless, not snobbish vs. snobbish (tal-pepé), polite vs. impolite, fashionable vs. not fashionable, prestigious vs. not prestigious, sociable vs. not sociable. Here a five-point semantic differential scale was employed. The antonymous adjectives describing Maltese were also translated into Maltese in order to treat both languages equally. The rest of the questionnaire, however, was devised in English for the sake of brevity. Open-ended questions were also included in Part I of the questionnaire in order to make it possible for the informants to voice their personal attitudes freely.

The second part of the questionnaire was constructed around an example of intra-sentential code-switching that served as a written stimulus for conscious evaluation. This part was considered essential to the study, since during lessons at school there is continual shifting from one language to the other. The code-switching example was taken from Sciriha (cf.1997:72; cf.p.1), who came across it in a TV programme of Malta’s national broadcasting station. The informants were asked to evaluate spontaneously the stimulus on a five-point scale comprised of adjectival opposites similar to those in Part I of the questionnaire. In addition to the code-switching example, two closed questions were posed in order to see whether the informants were aware of their own code alternation.

The section referring to Italian was composed of seven statements dealing with general attitudes towards Italian. These were preceded by a question regarding skills the informants had in Italian. The fourth part of the question-
naire dealt with language choice whilst the last section asked for some biographical data of the informants.

3.3. Sample size and selection

198 Maltese pupils of two state and two private schools who were in their last compulsory school year voluntarily participated in the study. Pupils were deliberately chosen for this investigation because one important aspect of this investigation focused on languages in education.

Type of school, sex and age were controlled extralinguistic variables. Besides, it was supposed that in Malta private schools are attended by pupils with a higher socio-economic background. On Dr. Sciriha’s advice also the parents’ education and occupation were requested for the purpose of this investigation. As far as the respondents’ socio-economic background is concerned, "... the notion of social class has been simplified into five groups only as reflected in the family’s socio-economic category, as this is reflected in the occupation of the breadwinner of the family” (Vassallo - Sant' Angelo - Sciriha 1994:26)\(^{11}\). As expected the two private schools had a higher concentration of participants from higher social categories than the two state schools. In fact, in a class-ridden educational system as we have in Malta, it is not surprising that according to a Chi-square-test the factors educational and socio-economic background should correlate so strongly with type of school. Apart from that, there is also a significant relationship between language background and type of school, that is to say that in private schools there are more pupils with English as mother tongue than in state schools. With the help of codes the data of 196 eligible informants was entered into the SPSS statistics programme (cf. Bortz:1994; Bühl-Zöfl. 1998; Janssen-Latz 1994).\(^{12}\)

11. Thus, the following categories based on the social grading of occupations were adopted: Group A: Persons exercising a profession, Group B: Persons in managerial and administrative grades, Group C1: Persons in higher clerical supervisory grades, skilled craftsmen and technicians, owners/managers of small businesses, Group C2: Skilled manual workers and foremen, Group D: Semi-skilled, unskilled workers, labourers and casual workers, Group E: Persons whose income is completely provided by the State.

12. Normal distributions were searched for with the help of the Kolmogorov-Smirnov-test but since no normal distribution of the ratings was given, Mann-Whitney-U-tests for two unrelated samples and Kruskal-Wallis-H-tests for several independent variables were conducted. These tests helped to spot differences between the informants’ ratings of the opinion statements.

For the correlation of reported language choice with the variables school and sex crosstabs were devised and the Chi-square-test was used for the statistical analysis of
4. Results

It is important to keep in mind the twofold character of the present investigation. The closed questions with pre-given answering possibilities were analysed in a quantitative way, which required statistical methods. The open questions, however, were analysed quantitatively as well as qualitatively. This section represents a selection of the most interesting results of the field study.

4.1. Attitudes towards English and Maltese

One of the most striking results achieved from the frequency of responses revealed that all informants harbour more or less the same attitudes towards English, and bilingualism with Maltese and English. When seen in a competitive dimension English was more highly rated on values which stressed status and Maltese on values associated with group solidarity. In other words, pupils agreed that English is a prestigious language, which is important in education and which gives access to better job prospects. One could say that Maltese pupils still believe that English accrues status. Thus, English is definitely a social marker while Maltese is viewed as a national identity marker.

Interestingly, when statements represented English and Maltese in a co-existing dimension pupils were strongly in favour of the use of both languages in all domains. This utterly positive attitude towards bilingualism may indicate that Maltese is gaining prestige both in the fields of education and career along with English. It seems that Maltese pupils do realise that being proficient in both languages constitutes a real linguistic advantage which opens doors of opportunities in the spheres of education and work. From informal interviews with pupils and university students it emerged that pupils are aware that in a society which is increasingly becoming anonymous they need to preserve their national language, which is a characteristic feature of their identity. On the other hand, however, they know that in the modern world the knowledge of English is crucial for it represents a link to the outside world.

It is noteworthy that the majority of the pupils agreed with the statement that Maltese people who speak only English are snobs. This belief might be due to the fact that the respondents feel that Maltese people who speak prevalently English reject their own mother tongue and want to show off by speaking an international, prestigious language.

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frequencies. The statistical analysis focused mainly on the two extralinguistic variables type of school and sex.
All five extralinguistic factors proved to be of relevance to the two categories solidarity and competitive dimension. Strikingly, the analysis revealed that informants of state schools, males, pupils with Maltese as first language and participants with a lower educational and socio-economic background harbour a more positive attitude towards Maltese as regards solidarity and rated statements of the competitive dimension higher than their counterparts. This outcome seems to emphasise the aforementioned correlation of the three extralinguistic variables of language background, education and socio-economic background with the factor of school type.

As to the adjectival opposites\(^\text{13}\), the data reveals that the two languages English and Maltese were rated rather high. However, if the investigation focuses on differences within this rather positive evaluation, it becomes clear that informants rated English slightly higher than Maltese. English is seen as slightly more important, more useful, more polite and more fashionable than Maltese. Maltese, on the other hand, is perceived as less snobbish than English. This latter finding reinforces the results that Maltese people who speak only English are perceived as snobs, which seems to prove that this impression is rather deep-rooted.

Whilst the informants agreed that on the whole they prefer Maltese to English, they also generally evaluated English slightly higher than Maltese on emotional traits. At first glance these findings seem to be contradictory. It might indeed be the case that they confirm the special position of the two official languages in Malta where people are not always consistent in their attitudes towards English and Maltese. The supporters of Maltese cannot deny the prestige of English and so quite a few nationalists who are fervent supporters of Maltese send their children to English-based private schools. This phenomenon of split attitudes has been termed ‘linguistic schizophrenia’ or ‘schizoglossia’ (cf. Mazzon 1992:103), which seems to be a characteristic feature of the Maltese linguistic situation.

The analysis of the responses to the adjectival opposites revealed similar results to those of the opinion statements. Informants of state schools and

\(^{13}\) For the statistical analysis of the opposites, the twelve attributes were first tested individually and then all together. The analysis of the single attributes would have been too lengthy and therefore could not be integrated. The final decision was thus to present the findings of the attributes all together and to mention some single statistically relevant findings where necessary. This method did not require a grouping of the attributes which would have been difficult given the semantically different nature of the objectives.
males harbour a more positive attitude towards Maltese than participants of private schools and females.

The answers given to the open questions revealed that an overwhelming majority of pupils argued in favour of learning English. The reasons they gave for their opinion varied from strictly utilitarian (more job opportunities, tourism) to intellectual reasons (language learning helps cognitive development). A good percentage of informants claimed that English is useful because it is an international language, because they can communicate and socialise with people from all over the world. They also stressed that English is the language of business and of the internet. They further stated that in Malta English is the language of education, which helps to accumulate knowledge, which is indispensable at university and which one needs to understand the textbooks, to pass exams and to study abroad. A smaller percentage opined that English is useful because with English one has better job prospects. The few pupils who held the opinion that English is not useful displayed a patriotic awareness. One male informant for example replied: "As a Maltese I should speak Maltese". It is noteworthy that this sentence was written in Maltese.

In the light of these findings, English undeniably plays an overwhelmingly important role in Malta because of its status as an international language. It clearly represents an effective link with the outside world and is indispensable for Maltese economy, trade, tourism, international communication and professional development. This might be the reason why the Maltese cling to their heritage of English. It is certain that they no longer perceive it as the language of the occupying forces and appreciate its instrumental value as a world language, which enables pupils to study abroad and to travel.

Most informants opined that English is important for everyday life. A great number of pupils stated that it is necessary in order to communicate with people in Malta who do not understand Maltese. Again it was mentioned that English is an international language and that it is helpful to be able to speak it if one wants to travel. Some informants claimed that it is important for everyday life in order to be able to read books, newspapers, magazines, to watch TV and to understand films at the cinema. Furthermore, English is seen as a useful tool for education, that is as a requirement for school and work. Only few wrote that English is widely used because many people in Malta also

14. A considerable number of respondents gave more than one answer to the questions. Consequently, the total percentages recorded in the responses add up to more than 100%. Due to the large number of reasons given, the classification of each of them was not always a clear-cut case. Each ambiguous statement was carefully reflected upon before classifying it.
speak English at home. They further stated that English is requested for official purposes since Malta is a bilingual country. A smaller percentage (especially pupils attending state schools) was of the opinion that Maltese is sufficient for everyday conversations.

The vast majority was not very enthusiastic about the idea of replacing English by Italian as medium of instruction. The majority of the informants argued along the line of international communication. They expressed their fear of losing international accessibility, their belief that Italian is more difficult than English and their preference for the English language.

A high percentage of the informants reacted negatively when asked if they would prefer to have more Maltese textbooks instead of English ones. This finding can be contrasted with the outcome of an earlier study by Borg et al. (1992 in Camilleri 1995:96) where 96% expressed a preference for the use of Maltese in schools if the textbooks were provided in the language. As to the arguments voiced by those who said they would not prefer to have more Maltese textbooks instead of English ones at school, some declared that they simply prefer English to Maltese, that English is easier and that it is good to practise English since in everyday life they speak Maltese. Others forwarded the opinion that "[they] have enough Maltese at school"; that "English is more important than Maltese"; "English is a lingua franca" and that "if textbooks would be in Maltese, technical terms would still be in English". These findings show that English has maintained its role as the language of education. The informants who would like to have more Maltese textbooks claimed that Maltese is their national language and should therefore be given more importance. Some were of the opinion that more Maltese textbooks would help them to improve their knowledge of Maltese because it is more difficult to know Maltese than to master English.

The great majority of informants asserted that English and Maltese should be used equally as mediums of instruction because they perceive both languages as equally important and think that the use of both is fairer since "Malta is bilingual and inhabited by English and Maltese speaking people".

From the evaluation of responses one can infer that English was paid due respect in all the open questions which demonstrates that it is still regarded as a very prestigious language which plays a crucial role in education. The vulnerable geographic position of Malta, its dependence on the tourist industry as well as the imminent threat of suffering isolation if English were not spoken in Malta were all reasons expressing the importance of English in Malta. On the other hand, Maltese also gained prestige in education: although the majority of the informants were against the introduction of more Maltese textbooks
at school they agreed on the equal use of English and Maltese as mediums of instruction.

4.2. Language attitudes towards Italian

Almost three quarters of the informants reported being able to understand and read Italian, and more than half of the participants stated that they can speak and write in Italian, too. This result is not surprising if one considers that Italian is compulsory in the two private schools chosen for the present study. It was observed that also university students are fluent in Italian and that usually they are eager to speak it with Italian tourists. Sometimes they are even more fluent in Italian than in English. Some owners of restaurants and cafes, however, insist on speaking English also when addressed in Italian. Yet, in the home domain Italian clearly plays a minor role since it was reported to be used only by two informants. In terms of media the majority of the informants reported English to be their preferred language with the exception of television, where Italian was able to keep abreast of English. In fact, more than half of the pupils claimed that they prefer to watch TV in Italian than in English or in Maltese and that Italian sounds better than English. Interestingly, males and pupils with Maltese as L1 generally favoured Italian more than their counterparts, i.e. females and pupils with English as L1. This finding might be explained by the fact that Maltese is replete with Italian loanwords and is thus easy to understand for L1 speakers of Maltese.

With due caution we can say that Italian still holds a privileged position in Malta as the third language of the island and that Italian maintains its traditional linguistic connection through Italian television programmes, which are still popular in Malta. Indeed it seems that the majority of Maltese pupils nurture a rather favourable attitude towards Italian.

4.3. Attitudes towards Mixed Maltese English

A further area of interest concerns code-switching. The informants were asked to evaluate a speaker on a five-point semantic differential scale. On the whole, the speaker was rated negatively. This finding comes quite as a surprise if we consider that Mixed Maltese English is a part of everyday life and can be found in newspapers, on the radio and on TV. Surprisingly, the hypothesis that people mix in order to avoid being stigmatised as snobs by speaking English exclusively, or uneducated by using Maltese all the time (cf.
Camilleri (1995:90) has to be refuted because the speaker was evaluated as being quite snobbish and uneducated. This result confirms Schembri’s (1990:54) assertion that code-switching between Maltese and English is the speech style of people from the Sliema area who are perceived as snobs. It is peculiar, however, that informants should associate code-switching with people from high-prestige areas and at the same time believe that such people are not educated and cannot speak either language correctly. However, it might be true that people mix the languages in order to gain prestige despite the fact that they are perceived negatively.

As expected from pupils who were brought up in a bilingual environment ever since attending primary school, almost all informants answered that they know people who code-switch. However, it is very significant that quite a number of pupils did not identify this speech pattern with themselves. These answers might not be reliable. In fact, some of the pupils who ticked ‘never’, were observed mixing the languages when speaking to their classmates. This corroborates the assumption that code-switching is an unconscious phenomenon.

4.4. Language choice

With regard to language choice the majority of the respondents reported to use Maltese more frequently than English in all domains except at school when addressing teachers during lessons. This fact notwithstanding, type of school and sex play a decisive role in the use of Maltese and English. A diversity in the usage amongst informants from both state and private schools, males and females has been detected. Of particular note is the fact that a consistent pattern runs all the way through the four domains of home, free time, school and official use. Maltese was reported to be used more frequently by pupils attending state schools and by males while English was stated to be used more often by pupils of private schools and by females. In other words, females generally claimed that they use English more often than their male counterparts. This result is consistent with the findings of studies on language choice carried out by Borg (1977:40), by Sciriha (1994:188) and by Mifsud (1993:104). A similar pattern can be detected in private schools. Generally speaking, pupils from private schools stated that they use English more and Maltese less than pupils attending state schools. This feature probably depends on the school policies.

15. For a full discussion of this subject see Micheli 2001:57.
5. The informal interviews

From the informal interviews conducted with students of the University of Malta it emerged that Malta is characterised by a wide range of opinions. On the one hand, there are people, especially the professional classes, who fear the decline of English and on the other hand, there are people who are worried about the status of Malta’s national language. The first group argues that in recent years the status of the second official language in Malta started being jeopardised due to political reasons and according to several Maltese people the level as well as the frequency with which English is spoken in Malta is rapidly decreasing. This decline of English can also be observed in schools and in particular in state schools. From Hull’s point of view (1993, 363), however, the strong minority of well-educated people who prefer English to Maltese and “the rather telling concern of the present Nationalist government to extend the use of the national language in the civil service and in education” only manifest that the language of prestige and power in Malta is still English. By contrast, a number of university students expressed particular concern that their national language might be declining. They stated that the strong minority in favour of English is increasing and that more and more Maltese are becoming indifferent to their mother tongue. This indifference is, among other things, mirrored in the local naming habits. In fact, today Maltese children are given prevalently English names instead of traditional Maltese names, which shows a loss of confidence in Maltese tradition and at the same time a cultural orientation towards the English and American world. Of course this phenomenon might partly be due to the fact that giving children English names has become a trend in many countries, although not to such a large extent. Some interviewees were anxious that Maltese would die should Malta be integrated into the European Union because English will impose itself in the fields of administration and the Law Courts. However, one could argue that one of the main aims of the EU is to respect and protect language minorities and their languages. This argument would speak in favour of the maintenance of the Maltese language. In this context it might be interesting to note that Prof. Oliver Friggeri of the University of Malta believes that the situation in Malta is still typical of a colony from a linguistic perspective since Maltese is not given "the natural prominence it deserves". He considers "the situation in Malta ideally identical to any other prevailing in other European countries" where the native tongue has "paramount importance...whereas a second language is also recognised and fully made use of for various reasons, including international communication" (personal communication in
interview with Prof. Friggeri 2000 in Micheli 2001:161-163). In his view Maltese should be the native and national language, whereas English should be the international common medium. Quite a few university students agreed with this view. This would clearly lead to a monolingual identity of the Maltese population.

6. Conclusion

Although English is still the language of prestige and Maltese the language associated with solidarity, Maltese pupils strongly agreed that its better to use both languages in all domains. Moreover, both Maltese and English were rated very high in contrast to Mixed Maltese English. English plays an overridingly important role in Malta. Yet, it is learned primarily for utilitarian purposes. In fact, school pupils showed instrumental rather than integrative motivation for learning English. Usually instrumental motivation is not very powerful because it is purely short-term and not sustained. Instrumental motivation may wane when employment has been found or money has been made. However, in Malta, like in India, instrumental motivation is more powerful than integrative motivation in fostering language learning. Yet, most Maltese pupils and university students do not necessarily perceive English as a constituent part of their identity despite the fact that they have English naming habits, that Malta has adopted the British school system and that Maltese citizens drive on the left.

The informal interviews indicate that Maltese students are oscillating between Maltese and English: on the one hand they are worried about the status of Malta’s national language and are struggling for Maltese to achieve its rightful importance in all domains, on the other, however, they know that English is much more prestigious and useful, especially in the field of education and for professional advancement. Moreover, they do not want to lose English since they know that it is their passport to the rest of the world. This oscillation of Maltese pupils and university students has certain repercussions on the attitudes towards the two languages. They are of a very complex nature and sometimes even contradictory, involving either contempt or "uncritical enthusiasm" (Aquilina 1940:5) or sometimes even both. Although pupils and students speak a lot of English, they question its importance for everyday life and perceive Maltese people who speak only English as snobs. This seems to be a contradiction. If English is associated with snobbishness pupils surely would not like to use it in all domains together with Maltese.
The variety of answers obtained and the inconsistency of pupils’ attitude observed show how difficult it is to find some common ground on which to base a tenable conclusion. The overall impression gained is that although one group of the Maltese population supports the English language and the other favours Maltese, most of the Maltese informants seem to wish to maintain both languages and to use them in all domains. They strive for a certain language balance and therefore opt for bilingualism. Italian clearly plays a minor role in Malta but it is still popular as far as TV is concerned.

References


Vassallo, Mario; Sant' Angelo, V. and Lydia Sciriha. 1994. *Too Late for Too Many. A Study of Special Education in Malta*. Malta: Media Centre.
Appendix

A1. Some significant results

1. **English: language of prestige**
   4 items x 4 answers = 16 x 196 respondents = 3136 = 100%;
   
<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>25%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>70.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **Maltese: language of group solidarity**
   4 items x 4 answers = 16 x 196 respondents = 3136 = 100%;
   
<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>25%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>70.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. **Competitive dimension**
   12 items x 4 answers = 48 x 196 respondents = 9408 = 100%; sum = 6289; 628900/9408 = 66.84 %
   
<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>25%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>66.8%</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4. **Co-operative dimension**
   11 items x 4 answers = 44 x 196 respondents = 8624 = 100%
   
<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>25%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>78%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   **Statements:**
   school and prestige  U-test: p = 0.070 - 0.035
   school and group solidarity  U-test: p = 0.000
   school and competitive dimension  U-test: p = 0.000
   sex and group solidarity  U-test: p = 0.000
   sex and competitive dimension  U-test: p = 0.000

   **Opposites:**
   school and Maltese  U-test: p = 0.001 - 0.0005
   sex and English  U-test: p = 0.000
   sex and Maltese  U-test: p = 0.001 - 0.0005

5. **Language choice according to school and sex**
   **HOME DOMAIN**
   
<table>
<thead>
<tr>
<th>Parents</th>
<th>State school</th>
<th>Private school</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Maltese</td>
<td>87</td>
<td>62</td>
<td>85</td>
<td>64</td>
</tr>
<tr>
<td>English</td>
<td>4</td>
<td>25</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Maltese and English</td>
<td>9</td>
<td>13</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Maltese, English &amp; Italian</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>N= 95</td>
<td>N= 100</td>
<td>N=96</td>
<td>N=99</td>
</tr>
</tbody>
</table>

   25.0% have expected count less than 5.\(x^2=0.000\) S, p<0.05, 0.01 \(x^2=0.008\) S, p<0.05, 0.01
A2. Sample Questionnaire

PART I  Attitudes

1. What do you think about the following statements? Read each one carefully and mark the answer which seems most appropriate to you. Please use the following coding method:

1 = Strongly agree  1 = Naqbel hafna
2 = Agree            2 = Naqbel
3 = Disagree         3 = Ma naqbilx
4 = Strongly disagree 4 = Ma naqbel xejn

1. Huwa importanti li wiehed jitkellem kemm bl-Ingliż kif ukoll bil-Malti. / It is important to be able to speak English and Maltese.
2. To be successful in your studies you have to know English well. / Biex timxiet l-quddiem fl-istudju trid tkun taf l-Ingliż sew.
3. Huwa bizzejed li wiehed jitkellem b’lingwa wahda f’Malta. / To speak one language in Malta is enough.
4. It is better to use Maltese when writing a letter to a friend. / Ikuon ahjar li tuza l-Malti meta tikteb ittra lill-habib/a.
5. Il-genituri ghandhom ikellmu lit-tfal taghhom kemm bil-Malti, kif ukoll bl-Ingliż. / Parents should speak both Maltese and English to their children.
6. Those people who are successful in life usually know English well. / Dawk in-nies li jimxu’l quddiem fil-hajja generalment ikunu jafu l-Ingliż sew.
7. L-ismijiet tat-toroq ghandhom ikunu kemm bl-Ingliż kif ukoll bil-Malti. / Street names should be in English and Maltese.
8. In the company of friends Maltese should mainly be used. / Fi grupp ta’ hbieb, il-Malti ghandu jigi uzat l-iktar.
9. Nies li jitkellem kemm bil-Malti kif ukoll bl-Ingliż jafu iktar skola. / People who speak Maltese and English are more educated.
10. Parents should speak Maltese to their children. / Il-gentituri ghandhom ikellmu bil-Malti lit-tfal taghhom.

11. I would like to be considered as a speaker of English and Maltese

12. etc. etc. (23 statements in total)

2. Semantic differential

English is:
easy/difficult; beautiful/awful; intellectual/plain; important/unimportant; emotional/unemotional; precise/vague; useful/useless; not snobbish/snobbish (tal-pepé); polite/impolite; fashionable/ not fashionable; prestigious/not prestigious; sociable/not sociable

il-malti huwa (‘Maltese is’)
facili/difficli; sabih/ikrah; intelletwali/semplici; importanti/mhx importanti; emozzjonalimhx emozzjonalii; preciz/vag; utli/mhx utli; mhux tal-pepé/tal-pepé; pulit/mhx pulit; tal-modamhx tal-modam prestigjuz/mhx prestigjuz; socjevoli/mhx socjevoli

3. General statements

a. Do you think that learning English is useful to Maltese pupils? YES NO
b. Do you think English is important for everyday life? YES NO
c. Do you think that Italian would be more useful than English at school? YES NO
d. Would you prefer to have more Maltese textbooks instead of English ones at school? YES NO
e. Do you think that English and Maltese should be used equally as mediums of instruction? YES NO
f. Which language would you choose to write a poem?

PART II Language Mixing

1. In a TV programme a woman, who was showing how to arrange flowers said: "Ghax il-flowers jekk ma tpoggiehomx sew majkunux nice." This Speaker is:
competent/incompetent; educated/uneeducated; natural/unnatural; not confused/confused; not snobbish/snobbish; fashionable/not fashionable; prestigious/not prestigious; sociable/not sociable

2. Do you know people who mix Maltese with English? YES NO
3. Do you do it yourself? RARELY/NEVER SOMETIMES FREQUENTLY
PART III ITALIAN
1. Which of the following skills do you have in Italian? understand/read/speak/write
2. People who speak Italian are cultured.
3. Italian sounds better than English.
4. I prefer to watch T.V. in Italian than English.
5. I prefer to watch T.V. in Italian than Maltese.
6. Italian should be taught to all pupils in Malta.
7. As an adult I would like to marry somebody who speaks Italian.
8. If I were to have children, I would want them to speak Italian.

PART IV: LANGUAGE BACKGROUND AND LANGUAGE USE
1. What is your first language? MALTESE ENGLISH ITALIAN
2. What is your second language? MALTESE ENGLISH ITALIAN
3. What is the first language of: mother, father, grandparents, brother(s), sister(s)
4. In which language(s) do you USUALLY address the following people:
   (Maltese, English, Italian)
   parents, grandparents, brother(s), sister(s), closest friends, Maltese of your own age (you meet for the 1st time), Maltese adults you know/you meet for the 1st time, teachers during class, teachers outside class, shop assistants, doctors, priests, civil servants
5. Which language(s) do you speak at home? (most frequently, frequently, sometimes rarely/Never) Maltese-English-Italian
6. Which language(s) did you speak before entering Primary School? at home/outside your home: Maltese-English-Italian
7. Reading and Media:
   Please indicate which of the following you read/watch/listen to and how often you do this. Please specify the title or title words of the newspapers, magazines, books, radio and TV stations and indicate your preferred language(s).

PART V: PERSONAL BACKGROUND INFORMATION
Gender, age, nationality, parents’ occupation, parents’ education
Have you ever been in an English-speaking country? YES NO
Have you ever been in Italy? YES NO
'Y’all come back now, y’hear!?'  
Language attitudes in the United States towards Southern American English

Barbara Soukup, Vienna

The subtle charm of the beautiful pronunciation is not in dictionaries, grammars, marks of accent, formulas of a language, or in any laws or rules. The charm of the beautiful pronunciation of all words of all tongues, is in perfect flexible vocal organs and in a developed harmonious soul. All words spoken from these have deeper, sweeter sounds, new meanings, impossible on any less terms.
(Walt Whitman, *An American Primer*)

1. Introduction

Reality is often a little harsher than the poet would have it. In real life, the ‘subtle charm of beautiful pronunciation’ is attributed to some accents rather than others, and along with such thinking, inferences are made about the speakers using the accents.

The purpose of the field study presented in this paper was to record some of the inferences generally made about, and resulting *attitudes* towards, speakers of Southern American English (i.e. the version(s) of American English spoken in the Southern States).¹ The study was conducted over a two-month period at four different universities/colleges in the states of Vermont and Tennessee; the informants were all U.S. undergraduate students. The cor-

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¹ For a delimitation of American regional dialects refer to Carver (1987) and especially to the Phonological Atlas project directed by William Labov et.al. at the University of Pennsylvania: http://www.ling.upenn.edu/phono_atlas/NationalMap/NationalMap.html
nerstones of the study were five working hypotheses, against which the survey data were tested. They predicted that Southern speakers would do worst in the overall evaluation, that they were at a disadvantage due to the conditions of the investigation’s setting (see below), that male speakers would fare better than females, that Southern speakers would be preferred by Southern informants, and that informants’ region of origin (‘North’ or ‘South’) would be the most salient variable for rating differences.²

2. Methods and Set-up

The theoretical framework for this investigation was provided by the social psychological approach to language attitude study, as adapted most notably by Ellen B. Ryan and Howard Giles in their 1982 book *Attitudes towards Language Variation*.³ In this approach, language attitudes, (i.e., generally, attitudes directed towards language as a referent), can be defined as “any affective, cognitive or behavioral index of evaluative reactions towards different language varieties or their speakers” (Ryan - Giles - Sebastian 1982: 7, my italics). The focus is “upon the individual and his/her display of attitudes toward ingroup and outgroup members as elicited by language...” (Ryan - Giles - Sebastian 1982: 2). This is why according to this approach the main interest lies in speaker evaluation studies - i.e. studies where informants are in one form or another asked to rate speaker samples, thus yielding evaluative reactions, namely those elicited by language. The present study, too, is based on the principle of speaker evaluation.

The social psychological approach to the study of language attitudes also holds that members of speech communities do not have a single unitary attitude towards two contrasting language varieties, but rather that, among other things, the context/setting of the evaluation is a vital factor in the display of attitudes and thus in the speaker evaluation (cf. Giles - Ryan 1982: 219; Smit 1994: 53-58; and esp. Cargile *et al.* 1994): “[t]he extent to which language variety A is preferred over language variety B depends upon the situation in which the assessment is made” (Giles - Ryan 1982: 219). Simply put, different ‘priorities’ in the line of language prestige and/or expression of group solidarity apply in different contexts. Thus, to avoid ambiguity of results and the drawing of undue conclusions, it is necessary to choose and closely define a very specific situational setting for any language attitude study.

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² For further details of the study cf. Soukup 2000.
The setting chosen for the present study is a job interview situation in (nationwide) sales. This decision was deemed on the one hand to give the study a pragmatic quality - the main reason for language attitude research today being its applicability to real life situations with regard to language problems (cf. Smit 1994: 54) - and on the other, to lend the necessary plausibility to the set-up for the informants, who were told that they should act as personnel managers in a hiring company, evaluating salesjob applicants. Using defining parameters identified by Giles and Ryan (1982: 219-220) as well as results of previous studies (cf. Kalin 1982, Shields 1979), one can identify a salesjob interview as a setting that stresses language status/ language prestige and group-centeredness/ impersonality (as it does not generally build on the intimacy between two people). It is thus a rather formal setting; this implies that speech could be rather carefully monitored by the judges (cf. Cargile et al. 1994: 225), a fact which might disfavor a ‘minority’ language.

The tool applied to elicit language attitudes in the given context is a ‘classic’ throughout the paradigm: it is an adapted form of the so-called matched guise technique as introduced by Wallace Lambert and colleagues in the 1960s (cf. Lambert 1967). Unlike the original, though, which uses bilingual/bidialectal speakers, here, four different speakers were recorded using their very own language variety: two with a ‘neutral’ accent, male and female (i.e. an accent that could not really be regionally placed), and two with a Southern/Tennessee accent, also male and female. Voices were selected in matching pairs as to pitch and quality in order to avoid too much divergence apart from the one in accent. All of the speakers were recorded reading the same text - a neutral one-minute piece about sales and salespeople.

For the evaluation, the informants were provided with a questionnaire containing a rating grid of semantic differential scales. The rating grid was also so designed as to match the sales context. It contained 21 attribute items in the form of opposite pairs: likeable - not likeable, educated - uneducated, trustworthy - not trustworthy, polite - impolite, intelligent - not intelligent, friendly - unfriendly, honest - dishonest, sociable - unsociable, ambitious - not ambitious, self-confident - not self-confident, helpful - not helpful, determined - wavering, reliable - unreliable, leadership qualities - no leadership qualities, sense of humor - no sense of humor, industrious - lazy, open-minded - not open-minded, sharp - slow, good manners - bad manners, suc-

4. Cf. in relation to this study i.a. Shields 1979; Van Antwerp - Maxwell 1982; Grinstead et al. 1987; Alford - Strother 1990, and especially Smit 1994 and the series of language attitude studies conducted at the University of Vienna English department.
5. For a discussion of this adaptation of technique cf. Soukup 2000.
cessful - not successful, outgoing - shy. This list was compiled as a common denominator of mainly two paradigms: first, the qualities deemed necessary in a salesperson, and secondly, common Southern stereotypes (as previously assessed in an analysis of treatment of the South and Southern American English in U.S. society).

The informants were asked to place their marks on a 5-point scale between the poles according to the degree they believed an attribute to be true for a speaker. The list was complemented by three ‘summarizing’ statements (‘This speaker would make a good salesperson’, ‘I would employ this speaker in my company as a salesperson’, ‘I would like to get to know this speaker on a personal basis’), for which the same rating scales were used.

In the questionnaire, the four rating grids for the speakers were followed by a fifth, similar section asking the informants to use the same grid to describe their picture of a perfectly successful salesperson, the ‘Ideal Salesperson’, in order to provide a sort of ‘standard’ measure against which to compare the speaker ratings.

With Giles and Ryan’s demand for methodological eclecticism (1982: 223) in mind, the speaker evaluation core of the field study questionnaire, being by its nature more affectively oriented, was complemented by a second, more cognitively oriented part that contained mostly closed questions leading from matters of American regional accents in general into the particular of Southern American English.

A third and final section sought to record the relevant informant biographical data in view of an ensuing statistical evaluation of the questionnaires. This also allowed for a careful selection process to obtain a very homogeneous group of informants, as it was judged necessary for a study of this limited scope. The informants were all U.S. undergraduate students, males and females in comparable parts, aged 18-24, and all native to one of the two test regions selected - New England and Tennessee, representing, in a simplification, the ‘North’ and the ‘South’. The population was all white (‘Caucasian’), for the simple reason that it was felt that in a minority/black population an investigation of Southern American English might be prone to call up touchy history-related issues of race or racism, the handling of which would have been entirely beyond the scope of such a small study as the present.

The final population consisted of 291 students: 141 from New England, 150 from Tennessee; 122 male, 169 female. The fact that students should be used at all in studies relying on employment opportunity settings has been justified by Rudolf Kalin (1982: 158/159), who observed that many students are in fact future employers who would soon be making real hiring decisions, and that in a number of comparative studies the responses given by students and those by actual employment interviewers were very similar. The only difference to emerge was that student judges tended to be somewhat more lenient than actual job interviewers.

3. Analysis of Results

At the core of the data analysis are comparisons of mean values. The original ratings on the 5-point scales were encoded using values from 5 to 1 - higher ratings being those closer to the positive adjective pole (educated, intelligent, etc.). The mean values were then calculated and compared. The cut-off level for statistical significance was set at .05, with .01 delimiting high statistical significance.

At the outset, the 21 attribute items of the rating grid were subjected to a so-called factor analysis. Three factors could be extracted this way, i.e. ‘group headings’ under which the attributes could be clustered: one that could be entitled competence (sharp, successful, determined, educated, leadership qualities, intelligent, ambitious, industrious, self-confident), one of personal integrity (honest, trustworthy, polite, good manners, reliable, likeable, helpful, open-minded), and one of social attractiveness (outgoing, sense of humor, sociable, friendly). Tables 1 and 2 below show the results of the mean value comparisons according to ‘factors’.

As mentioned before, one working hypothesis for the study predicted that the Southern speakers would do worse in the overall speaker evaluation than the ‘neutral’ speakers. This hypothesis was quite distinctly confirmed in the general outcome. Split up according to factors, the results were most explicit for the competence cluster: both ‘neutral’ speakers consistently ranked before the Southerners with high statistical significance. The ‘neutral’ male ranked before his female counterpart; with the Southerners, the opposite occurred, the Southern female surpassing her male counterpart. In the personal integrity

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7. Using the statistical tools of Levene's and T-Tests.
8. For the factor analysis, the tool of Principal Component Analysis was used. An eigenvalue of greater than one was adopted as criterion of extraction (Kaiser's criterion). The three factors yielded in the process were then rotated employing the varimax method.
category, ratings were rather level, only the Southern male speaker consistently came in last.

**Table 1. Speaker ratings – overall results (mean values)**

<table>
<thead>
<tr>
<th></th>
<th>neutral female (NtF)</th>
<th>Southern female (SoF)</th>
<th>neutral male (NtM)</th>
<th>Southern male (SoM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>competence</td>
<td>3.7694</td>
<td>3.3281</td>
<td>3.9439</td>
<td>2.9984</td>
</tr>
<tr>
<td>personal integrity</td>
<td>3.7758</td>
<td>3.7348</td>
<td>3.7516</td>
<td>3.5811</td>
</tr>
<tr>
<td>social attractiveness</td>
<td>3.3806</td>
<td>3.9742</td>
<td>3.5034</td>
<td>3.3882</td>
</tr>
<tr>
<td>good salesperson</td>
<td>3.61</td>
<td>3.30</td>
<td>3.73</td>
<td>2.88</td>
</tr>
<tr>
<td>hire in my company</td>
<td>3.39</td>
<td>3.14</td>
<td>3.63</td>
<td>2.75</td>
</tr>
<tr>
<td>get to know personally</td>
<td>3.42</td>
<td>3.48</td>
<td>3.23</td>
<td>3.09</td>
</tr>
</tbody>
</table>

**Table 2. p values (of mean differences):**

<table>
<thead>
<tr>
<th></th>
<th>NtF-SoF</th>
<th>NtF-NtM</th>
<th>NtF-SoM</th>
<th>SoF-NtM</th>
<th>SoF-SoM</th>
<th>NtM-SoM</th>
</tr>
</thead>
<tbody>
<tr>
<td>competence</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>personal integrity</td>
<td>.366</td>
<td>.532</td>
<td>.000</td>
<td>.742</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td>social attractiveness</td>
<td>.000</td>
<td>.014</td>
<td>.872</td>
<td>.000</td>
<td>.000</td>
<td>.108</td>
</tr>
<tr>
<td>good salesperson</td>
<td>.000</td>
<td>.105</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>hire in my company</td>
<td>.014</td>
<td>.004</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>get to know</td>
<td>.509</td>
<td>.026</td>
<td>.000</td>
<td>.009</td>
<td>.000</td>
<td>.157</td>
</tr>
</tbody>
</table>

Statistical significance at p<.05; highly significant at p ≤ .01

The third cluster under the heading of social attractiveness presented a very different picture, and a rather interesting one: it was the one instance where the Southern accent did not lower the scores for its speakers, but rather gave them a realistic chance to pull even with the ‘neutral’ speakers. In the case of the Southern female, it even allowed her to take the overall lead.

As said above, three so-called summarizing statements concluded the rating grid for each speaker. They referred to how good a salesperson the informants believed a speaker to be, if they would hire them as such, and whether they would feel any incentive to get to know a speaker better personally. The first two statements were thus directly (sales-) ‘performance’-related. Highest scores were once more achieved by the ‘neutral’ speakers, the ‘neutral’ male having the edge over his female counterpart. In view of the earlier results, this leads to the overall conclusion that a good performance in sales is seen as directly related to competence rather than social attractiveness or personal integrity; this, despite the communicative component of transactions in selling. In that sense, it could not be surprising that the Southerners should lose
ground here; but it does seem a little astonishing that more personal and social aspects were ultimately disregarded by the informants. Yet again, the Southern female still did better than her male counterpart.

The ratings for the third, ‘sympathy’-related summarizing statement formed a category entirely apart from the former two statements. Both female speakers retained a slight edge over the males, with the Southern female again in the lead.

Interestingly enough, then, as can be gleaned from the picture given so far, another working hypothesis based on results of previous studies (cf. e.g. Van Antwerp - Maxwell 1982) must remain unconfirmed as such: i.e., the assumption that female speakers would be rated lower than males. For the ‘neutral’ speakers the competence and performance-related ratings, and even the social attractiveness scores, did in fact establish the predicted overall hierarchy, with the male speaker ranking higher than the female in the majority of cases, only ‘losing’ to her in the ‘sympathy’-ratings of summarizing statement #3 (“get to know on a personal basis”), and both pulling even for personal integrity. But, and this is one of the most salient findings of the present study, the general outcome is entirely different for the Southern speakers. In no instance did the Southern male speaker receive higher scores than his female counterpart; in no instance could he close the gap, even if pulling even with one or both of the ‘neutral’ male on the ‘sympathy’ score of summarizing statement #3). Contrary to previous results like those of Van Antwerp – Maxwell (1982), therefore, this outcome suggests that the female speaker with the Southern accent tended to profit from her ‘combination’ rather than being hurt by it; consistently so in comparison with the Southern male, and in terms of social attractiveness and ‘sympathy’ scores even in comparison with both ‘neutral’ competitors. This is indeed a quite outstanding result.

All in all, therefore, though the Southern female’s competence and summarizing ‘performance’ ratings were unaffected by her high social attractiveness and ‘sympathy’ scores, it should not be excluded that in a real life job-interview situation a potential ‘country-boy ing’ charm, as is often popularly attributed to Southern women, once tapped, might actually turn out to be a compensation for other perceived shortcomings. That is to say, the sympathies alone may well be on the Southern woman’s side. Further investigation into actual behavioral consequences of language attitudes towards Southern speech would thus promise to be very interesting. At least, what the present results point out is that any similar study of language attitudes towards South-
ern accents must by all means take the variable of speaker’s sex into account, to avoid distortions.

An analysis of the correlations among speakers showed some strong analogous relationships between the ratings of the two Southern speakers. This pointed to the fact that the speaker evaluation as such was not done at random, and confirmed the Southern accent to have been picked up as a salient parameter in the informants’ assessment, as expected at the outset. That the Southern accent of both speakers was actually recognized by a wide majority of informants was verified in a set of ‘control’ questions about the speakers’ origin (“Where in the USA do you think these speaker come from?”) at the beginning of the second part of the questionnaire.

As said before, the evaluation of an ‘ideal salesperson’ subsequent to the speaker rating served more of a ‘control’ function. In the outcome, it legitimized another aspect of the analysis, namely the assumption that higher ratings equaled better ratings at all times. Yet, it brought a slight discrepancy with it: personal integrity and social attractiveness scores were here emphasized over competence, in contrast to the speaker evaluations in the grid and in the summarizing statements. Tentative explanations could be found in the more cognitive orientation of the ‘ideal salesperson’ evaluation, and in the possible influence of ‘social desirability’ considerations on the informants’ part (i.e., what ideals would be desired by society).

3.1 Grouping the data

Subsequent to the analysis of the overall results from the speaker evaluation, the body of data was broken down into samples according to different independent grouping variables gleaned from the informants’ biographical data. A set of five grouping variables was subjected to statistical testing: informants’ region of origin (New England, Tennessee), informants’ sex, their parents’ origin, informants’ travel experience, and time spent with friends/relatives in or from the respective other region.

Sampling according to ‘parents’ origin’ and ‘time spent with friends/relatives’ did not give rise to any statistically significant developments at all. ‘Travel experience’ gave mere hints at a possible influence on language attitudes regarding traveling to the respective other region, which seemed to enhance social attractiveness-ratings while tending to decrease perceived competence, for both groups of informants. Further testing would be needed to get to the bottom of these findings.

9. Using Pearson’s r as coefficient.
As it turned out, sampling according to informants’ sex yielded only minor insights, namely that female informants generally tended to give higher scores, and that male speakers (especially the ‘neutral’ male) at times would receive an ‘opposite sex’ bonus in social attractiveness- and ‘sympathy’-related scores. As predicted in another working hypothesis, then, informants’ origin proved to be the most salient of all grouping variables. Yet, even here, the differences recorded were not as clear-cut and numerous as originally expected, altogether departing not too far from the overall picture.

In this line, a last working hypothesis had basically predicted that Southern speakers would do better when rated by Southerners and worse when rated by Northerners. But the results of the sample analysis showed, rather surprisingly, that in terms of competence, Southern informants were far from more ‘generous’ towards their peers; rather, they were outright ‘stricter’, lowering their scores vis-à-vis the Northern informants’. In the personal integrity and social attractiveness evaluations, scores did get equaled out between speakers in the Southern informant sample (as opposed to the New England sample), the Southern speakers catching up with the ‘neutral’ speakers in the Tennessee ratings, but the Southern speakers received no such strong boost as to be given an edge over their ‘neutral’ counterparts. This same picture is reflected in the ‘performance’-related summarizing scores (“good salesperson”/“hire in my company”). Once more, only the Southern female could slightly profit in the ‘sympathy’ score (“get to know...”). For the Southern male speaker, this also means that in his ratings no evidence of any ‘covert prestige’ phenomenon (cf. Trudgill 1972) could be traced, contrary to other studies (e.g. Luhman 1990).

The influence of group solidarity on the speaker evaluation was therefore simply overrated in respect of the last working hypothesis for the present study. However, both the virtual setting (salesjob-interview) and the real-life setting (university/college) in which the present language attitude assessment was made were rather highly status-stressing, as opposed to solidarity-stressing. In a different set-up, more of a group solidarity among Southerners might come to bear. This, too, would be a profitable subject for further investigation.

What would still follow from the outcome of the present set-up as it stands is the confirmation that Southern American English is generally associated with low status and non-standardness, as its speakers fail to ‘perform’ in the context given here. In other words, in as status-dominated a setting as the present, ‘neutral’ accents just fit the expected language variety profile better than Southern accents. And, if +status is associated with +standardization, as is
usually the case (cf. Cargile et al. 1994: 226), negative marks for Southern American English can also be taken to confirm what was outlined in numerous studies by Preston (e.g. 1997), which is that in the ‘default’ definition of a ‘standard’ in the United States,\(^{10}\) what ‘Standard American English’ decidedly is not, is Southern American English. On the other hand, as the results also suggest, what seems to come close to ‘standardness’ in the U.S. is in fact a ‘neutral’, ‘de-regionalized’ accent as used by the respective ‘neutral’ speakers in the study (cf. also Wolfram - Schilling-Estes 1998: 12).

3.2 Evaluation of the Direct Questions

The results from the second, complementary part of the questionnaire largely confirm what the outcome of the speaker evaluation has suggested so far. Majorities of informants respectively agreed in their responses that a regional accent would indeed make a difference in a salesperson working for a nationwide corporation, with most of them saying that the difference would be a negative one; when asked, they agreed that a Southern accent could be an impediment in the salesjob market, and that they could think of other situations, too, where a Southern accent might seem inappropriate or disadvantageous. Informants saying they would not consider advising salesjob applicants to unlearn their accent were in the minority as opposed to those who said they would, or might under certain circumstances.

Throughout, the Southern informants appeared more pessimistic or disillusioned than the Northerners with regard to the prestige of regional accents. For example, only 26.7% of the Tennessee informants indicated they would definitely not advise a salesperson to unlearn their accent (41.1% of Northerners). Yet two thirds of the Tennesseans also said that, on a more affective level, they actually liked Southern speech - as opposed to only 47.5% of the New Englanders saying they did (with another 34.8% relativizing that they might do so under certain conditions).

The informants assessed a Southern accent in general to be ‘cute’, but not ‘awkward’, nor ‘beautiful’, ‘cool’, ‘too slow’, or ‘ridiculous’. In contrast to Tennesseans, New Englanders tended to associate the accent with non-standardness, and said it was rather ‘amusing’, which Tennesseans also rejected.

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10. The point made here is that ‘Standard American English’ is determined more by what it is not than by what it is, i.e., as Wolfram and Schilling-Estes put it, “if a person’s speech is free of structures that can be identified as nonstandard, then it is considered standard” (1998: 12).
When asked whether they believed there was one generally acceptable and desirable U.S. ‘standard’, more than half of the informants answered in the negative (two thirds of Tennesseans). Seen in relation to the responses to the question about ‘unlearning a regional accent’, and the general assessment of the ‘neutral’ and Southern speakers in Part I of the questionnaire, this once more corroborates the premise that ‘standardness’ in the U.S. is not perceived as an emulation of one particular language variety or form of speech, but as the avoidance of regional features (such as speaking Southern); this is another important finding of the present study. That the Southerners themselves have picked up this notion seems to be one more piece of evidence for a general latent and pervasive linguistic insecurity on the Southerners’ part, as confirmed in their speaker ratings.

Other findings, gleaned from a qualitative analysis - a sort of synthesis - of the essay answers to the questions posed in Part II of the questionnaire (“Explain your answer”), suggested that knowledge of Southern stereotypes, such as a lack of education/intelligence or a general friendliness, is probably widespread in U.S. society as represented by the informant population here. What also came out is the notion that linguistically, at least, the South (i.e. a region of some 25% of the population)\(^\text{11}\) and the non-South constitute a clear dichotomy, which means that what is effective and appropriate in the one place is not at all so in the other: one in five students volunteered the opinion at some point in the questionnaire that a regional accent would be most effective or, as it were, least harmful in its region of origin. Within the South, however, as the speaker evaluation has made evident, this does not necessarily mean that too much unconditional linguistic solidarity can be expected. Lippi-Green (1997: 213) suggests, though, that Southerners exhibit insecurity about their language, and themselves subscribe to criticism of it, primarily when in direct contact with a Northern (or, probably, any more ‘prestigious’) ‘opposite’ - thus, further studies would have to show if in a more ‘protected’, distinctly Southern environment, the cards would not be dealt differently in terms of accent evaluation.

4. Summary and Conclusion

In short, the core findings of this present study, to be viewed in the light of its scope and limitations, are the following: language attitudes towards Southern American English are rather negative in comparison with a ‘neutral’ accent - for male speakers more so than for females. In a salesjob-interview situation,

\[\text{\footnotesize \(^{11}\) Estimate by Lippi-Green 1997: 204.}\]
having a Southern accent is a first strike against the applicant. In a way, Southern speech seems therefore even a likely imminent subject for deliberations of the American Equal Employment Opportunity Commission. Positive associations of Southern speech cannot compensate for the negative impressions called up. Generally, a Southern accent is considered low-status and non-standard. The subordination process concomitant with this stigma (cf. Lippi-Green 1997: 68), i.e. the devaluing of the ‘non-mainstream’, has proved successful in a super-regional (national) context, as the Southerners themselves subscribe to it.

The research perspective with regard to language attitudes towards Southern American English seems exceedingly wide, and many answers are still to be found, or, at least, to be double-checked. Further investigations along similar lines to the present, and expanding its scope, could thus study the effects of different Southern accents in a given setting (as opposed to the single Tennessee accent used here), or the impact of race issues on language attitudes, of using other dialect features instead of mere accents, and, of course, of all kinds of different formal and informal settings and/or set-ups. Studies in attitude strength over time would also be called for (cf. Petty - Krosnick 1995) - for the present, suffice it to say that the seemingly institutionalized character of the common Southern stereotypes through the media and popular culture actually suggests that attitudes based on these generalizations are rather strong and durable, constantly tilting the power balance in favor of the non-South.

How to change such a picture? In the short run, further studies on the subject of regional variation in the U.S. might contribute to increasing public awareness of the issue.

In the long run, it would help to teach the next generation(s) more respect towards linguistic variety; in the U.S. just like anywhere else around the world.

References


12. This idea has been discussed in depth by Lippi-Green (1997).


A Comparative Research into the Transfer of Animal Names to Human Beings

Pavol Štekauer, Štefan Franko, Dana Slanèová, Šudmila Liptáková, James Surtheland-Smith, Prešov

1. Introduction

The use of animal names applied to human beings is doubtless almost as old as human language. Indeed, ascription of animality to humanity is as ancient as humanity itself. However, an original sacred or magical function in such ascriptions is almost certainly completely lost now, and applying animal names to human beings has gained exclusively secular and profane functions. This seemingly peripheral phenomenon features a considerable frequency in everyday speech. Therefore, it is surprising that little attention has been paid by linguists to this aspect of human language. The reason for this may be sought in considering this aspect of human language as commonplace.

The paper presents a comparison of the transfer of animal names to human beings in English and Slovak, the main focus being laid on the word-formation aspect. Section 2 provides a theoretical point of departure for the identification of various patterns of extending the basic meaning of a naming unit in the field examined specified in Section 3. While the general tendency to refer to people by animal names is common to English and Slovak, which implies many common features, our attention has been directed to a number of principled word-formation differences between these two typologically different languages (analytic vs. synthetic). Their review is given in Section 4.

2. Word-formation and semantic formation

This part of the paper deals with two different sources underlying the transfer of animal names to human beings. These sources follow from the onomasiological model proposed in Štekauer (1998). Some of the fundamental principles of this model are as follows:

1. Authors’ address for correspondence: Pavol Štekauer; Department of English and American Studies; Faculty of Arts; 080 78 Prešov; Slovakia; e-mail: stekpal@unipo.sk
(a) The Word-Formation Component generates all and only regular naming units based on productive Word-Formation Rules. In the process of word-formation, it takes the respective word-formation bases and affixes (if applicable) from the Lexical Component, in accordance with the conceptual and the semantic analyses of the object to be named. A new naming unit is supplied to the Lexical Component where it is stored as a member of a particular semantically and formally defined paradigm.

(b) Importantly, any deviations from the regular meaning or form take place in the Lexical Component. Thus, for example, *transmission* in its original, regular, and predictable meaning is coined in the Word-Formation Component, however, *transmission* (of a car), which features certain semantic idiosyncrasies, results from the so-called semantic formation in the Lexical Component.

It follows from the above outlined principles that there are two groups of animal names used to refer to people. One group is represented by denominal verbs coined by the productive and regular process of Onomasiological Recategorization (traditionally labelled as ‘conversion’ or ‘zero-derivation’). Examples include *bug* → *bug*, *hare* → *hare*, *bear* → *bear*, etc. The second group is represented by the products of semantic formation in the Lexical Component, such as *stag* (‘a male unaccompanied by a woman at a social function’) semantically formed from *stag* (‘the adult male of a deer’), *wild cat* (‘a quick-tempered, fierce person’) semantically formed from *wild cat* (‘an undomesticated species of cat native to Europe’), *fox* (‘a sly, cunning person’) from *fox* (‘a quadruped of the dog family with a straight bushy tail and erect ears’).

3. Formation patterns

The sample analysed includes 140 frequently transferred animal names. The sampling was based on a taxonomy of animals obtained from the Department of Biology, Faculty of Arts, Prešov. The list was provided to the Slovak research team members who were supposed to identify all the animals that are, in their view, commonly transferred to human beings in Slovak. The resulting sample includes all those animals which were marked by at least two native speakers. The native English speaker was provided the resulting list and asked to identify the similarities, discrepancies, etc. All of his observations were subsequently discussed within a series of the research team sessions. The long discussions proved to be very fruitful and revealed a number of interesting facts. While this sample is far from being exhaustive, we con-
sider it to be sufficiently representative for justification of the conclusions we have arrived at in our research.

As a point of departure we took the English sample. Its analysis revealed five groups into which the English naming units can be classified according to the criteria given in Section 2. In particular, they are based on various combinations of processes of word-formation and semantic formation:

1. **PATTERN I**

   [Diagram]

   The basic animal name is converted to Verb, for example:

   (2) *bug* [an insect or other creeping or crawling invertebrate]/

   *bug* [to bother, to annoy]

2. **PATTERN II**

   [Diagram]

   An animal name used metaphorically (semantic formation). An example is *beetle*⃗ 

   (3) *beetle* [‘a kind of insect’] → *beetle* [‘shortsighted person’].

3. **PATTERN III**

   [Diagram]

   A combination of Pattern I and Pattern II. It means that *N*<sub>1</sub> is a source both for *N*<sub>2</sub> and *V*:

   (4) *butterfly* [‘a kind of insect’] → *butterfly* [‘person who never settles down to one job or activity for long’] and *butterfly* [‘to ‘fly’ to and fro’]

   This basic pattern features various modifications. Thus, for example, *dog* has the following structure of word/semantic formation relations:

   (5) [Diagram]

   where *N*<sub>2</sub> means ‘wicked or worthless man’, *N*<sub>3</sub> ‘fellow’, and *V* means ‘to follow (sb.) closely and persistently’.

   If an untransferred meaning is taken into consideration too, the next modification is represented by *eel*:
where $N_2$ means ‘a slippery person’, $V_1$ ‘to fish eels’, and $V_2$ ‘to move like an eel’. A combination of these two modifications is provided by *hound*:

$$
\begin{array}{c}
N_1 \\
\rightarrow
\end{array}
\begin{array}{c}
N_2 \\
\rightarrow
\end{array}
\begin{array}{c}
V_1 \\
V_2
\end{array}
$$

where $N_2$ means ‘a mean or despicable person’, $N_3$ ‘a person who pursues like a hound, esp. one who avidly seeks or collects something’, $V_1$ means ‘to pursue with or as if with hounds’, and $V_2$ ‘to drive or affect by persistent harassing, bait’.

$$
\begin{array}{c}
N_1 \\
\rightarrow
\end{array}
\begin{array}{c}
N_2 \\
\rightarrow
\end{array}
\begin{array}{c}
N_3 \\
V_1 \\
V_2
\end{array}
$$

In this pattern, conversion is preceded by semantic formation, although, it should be noted, the borderline between Pattern III and Pattern IV is vague in many cases. As an example of this pattern, the naming unit *hog*$_{N_1}$ is first subject to semantic formation which yields $N_2$ ‘greedy person’. Subsequently, this meaning motivated the conversion process resulting in *hog*$_V$ in the meaning of ‘take more than one’s fair share, selfishly’. Similarly, *stag* ‘fully-grown male deer’ leads to *stag*$_{N_2}$ ‘an adult man unaccompanied by a woman at a party’, and subsequently to *stag*$_V$ ‘to go out without a company of the opposite sex’.

An interesting modification of this pattern can be exemplified by *chicken*:
where \( N_2 \) means ‘a young woman’, \( N_3 \) ‘a coward’, and \( V \) ‘to get scared’.

This pattern can be illustrated by *bitch*. \( N_2 \) means ‘a lewd or immoral woman’, \( N_3 \) ‘a malicious, spiteful or domineering woman’, \( V_1 \) converted from \( N_2 \) means ‘to fuck a woman’, and \( V_2 \) converted from \( N_3 \) ‘to make spiteful comments, to grumble’.

It should be noted that, in the majority of these naming units, the structure of formation relations is more complex than that of the individual basic patterns.

Not all of these patterns are made use of in Slovak. Interestingly enough, in the case of transfer of animal names to human beings, the Slovak language only employs those patterns of verb derivation in which the verb is derived from \( N_2 \), \( N_3 \), etc. There do not seem to be any cases in which a verb with a transferred meaning is derived directly from \( N_1 \)!!!

4. Fundamental word-formation differences

Apart from the above mentioned differences in the fundamental formation patterns, there are two fundamental word-formation differences between English and Slovak. While these differences are also observable in the field of the transfer of animal names to human beings their validity is much wider, and are related to the considerable typological differences between the two languages examined.

1. Where English makes use of conversion (*ape*, *beaver*, *beetle*) Slovak makes use of a variety of word-formation processes:

   (a) **Suffixation**: derivational suffix (-ov-) combined with a thematic and an inflectional (infinitival) morpheme: *kukuèk-ov-a-●* (from *cuckoo* – ‘to pry’), *parazit-ov-a-●* (from *parasite* ‘to sponge’).
(b) **Transflexional derivation**: the function of a derivational suffix is taken over by inflectional morphemes (paradigm) – *svin-i*• (from *pig* – ‘discredit, smudge/bedraggle, soil’), *kuvik-a*• (from *barn-owl* – ‘to foretell bad luck’). If conversion in English is accounted for as a case of zero-derivation (see, for example, Marchand (1960), Karstovsky (1983)) transflexional derivation can be considered to be a typological equivalent of English zero.

(c) **Prefixal-suffixal derivation** (using a split affix): *vy-chrt-nú*• (from *greyhound* – ‘become very thin’).

(d) **Prefixal-transflexional derivation**: *z-havran-ie*• (from *raven* – ‘to renounce esp. one’s nationality, country, etc.’), *po-ps-u*• /zo-ps-u*• (from *dog* – ‘to fall in terms of moral’, *z-vlè-i*• (from *wulf* – ‘to become wild’).

(e) **Transflexional-reflexive derivation** (inflectional morpheme (paradigm) + reflexive derivational morpheme): *lišk-a*• *sa* (from *fox* – ‘to fawn’), *opiè-i*• *sa* (from *ape* – ‘to ape’).

(f) **Prefixational-transflexional-reflexive derivation** (prefix + inflectional morpheme (paradigm) + reflexive derivational morpheme): *vy-somár-i*• *sa* (from *ass* – ‘to solve an intricate problem’), *na-jež-i*• *sa* (from *hedgehog* – ‘to get angry’).

(g) Rather an exception to the rule is represented by **denominal substantives** (*svin-iar* – ‘swine’); other examples concern gender formations: *opièiak* (masc. *ape*), *lišiak* (masc. ‘fox’), etc.

Importantly, the frequent use of conversion as a word-formation process in English in this semantic field entails a limited number of suffixations. Derivatives such as *lionize* and *parasitize* are rather exceptions to the rule. The same applies to the class-maintaining affixation. In Slovak, there is only a limited number of denominal nouns with a transferred meaning (cf. (g) above).

2. As indicated in (g) above a number of Slovak animal names can be gender-distinguished by affixation (*somár* (masc. - unmarked) – *somarica* (fem. - marked) vs. *ass*; *opica* (fem. - unmarked) – *opièiak* (masc. - marked) vs. *ape*), etc., which is not a common case in English. In general, the unmarked masculine gender functions as a derivative basis for the marked feminine gender, though the opposite case is also possible as illustrated above. If no such gender distinction is made it may result in an admissible ‘violation’ of gender agreement as exemplified in (11):
5. Conclusions

A number of interesting conclusions have been drawn from the analysis of our sample. The most important of them, rooted in the typological differences of the two languages, have been mentioned in the previous paragraphs, and suggest that this comparative research exploring the transfer of animal names to human beings deserves further attention on the part of morphologists and semanticists. We believe that our paper has indicated possible directions of further research.

References

HOW TO CONTACT US:

c/o
Institut für Anglistik & Amerikanistik der Universität Wien
Universitätscampus AAKH, Spitalgasse 2, Hof 8
A – 1090 Vienna; Austria

fax (intern.) 43 1 4277 9424
eMail nikolaus.ritt@univie.ac.at
W3 http://www.univie.ac.at/Anglistik

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