

ATTRITION IS NOT A UNITARY PHENOMENON. ON DIFFERENT POSSIBLE OUTCOMES OF LANGUAGE CONTACT SITUATIONS

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1. Introduction

Language contact phenomena have been investigated from various approaches (mainly linguistic and sociolinguistic, but also psycholinguistic) and each discipline tends to use its own terminology. For the cases where the contact between languages leads to the modification or even disappearance of one of the languages, the broadly used terms of ‘language change’, ‘language loss’, and ‘language shift’ have been more recently (i.e., since the beginning of the eighties, cf. Lambert & Freed, 1982; Weltens, De Bot & Van Els, 1986; Seliger & Vago, 1991; Hyltenstam & Viberg, 1993) enriched by the term ‘language attrition’². Despite the numerous attempts to clarify the distinctions between these terms (e.g., Clyne, 1986; De Bot, 2001, etc.) it seems that the term ‘attrition’ is more and more used instead of ‘shift’, without the motivation for such a change in terminology being clear.

The aim of the present paper is a) to reiterate the distinctions between different language contact phenomena as they have been proposed in the literature, and b) to draw attention to some factors which have been shown to play a role specifically in language attrition. I will suggest distinguishing different kinds of attrition depending on the language contact situation.

2. The terminological jungle in contact linguistics

The aim of this section cannot be to present an exhaustive review of the terminology used in contact linguistics. Rather I will concentrate on some examples

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² As far as I know, the first use of the term ‘attrition’ in a language contact context has to be attributed to Haugen (1978).

allowing me to situate L1 attrition research within the field of general contact linguistics.

2.1. Language change, maintenance, and shift

Dorian (1982: 44) rightly draws attention to the fact that language contact does not - luckily enough! - in all cases lead to language loss. The most developed issue is probably maintenance and loss of languages, representing the bulk of research. The approach is generally sociolinguistic - focusing on the factors which favour one or the other - nevertheless some studies have linguistic or even psycholinguistic approaches (i.e., the contact phenomenon are examined in the individual, e.g., Weinreich, 1967).

The relationship between language change, shift and contact is described by Gardner-Chloros (2001) as a complex three-way relationship: language contact leads to language change which can be either fast or slow (i.e., over several generations). Within particular socio-economic and socio-psychological settings, contact may also entail shift which is "(...) likely to accelerate and otherwise affect the changes which are taking place" (Gardner-Chloros, 2001: 128). It is not exactly clear what she means by language change: it seems to imply language loss; but, on the other hand she does not exclude that shift may go as far as the total extinction of a language without striking structural changes. In any case, one can safely assume that 'shift' is defined as a reduction in the use of the language, in other words: as functional loss.

Milroy (2001: 39-40) distinguishes three sociolinguistic approaches to maintenance and shift:

- a. Studies at the macro level that are typically concerned with the impact of political and institutional factors on language behaviour. According to Milroy (2001: 39), this kind of research is best represented by the work of Fishman (e.g., 1972, 1980)
- b. At the micro level (but still concerned with the community), we have studies that link language choice with social organisation, discourse practices and other ethnographic factors (e.g., Gumperz, 1982; Gal, 1978; Li Wei, 1994). According to Milroy, micro-macro links are sometimes established in associating these local levels of organisation with larger institutional or socio-political structures.
- c. At an even more micro level, we have analysis of bilingual conversation where interpretations are oriented to participant actions rather than to global social categories. Milroy mentions, amongst others, Gumperz (1982), Auer (1995) and Myers-Scotton (1993) as representatives of this approach.

In this vein, shift also implies functional change, but it seems equally to be employed for more structural changes, at least as far as the more micro level approaches are concerned.

But there is another interesting distinction which follows on from the classification of approaches proposed by Milroy: The first two categories investigate language contact on the community level, whereas the third category of research is more concerned with language contact in the individual.

This factor is used by many researchers to distinguish different language contact outcomes. Dorian (1982: 44) suggests that language contact on the community level results in shift³ which is defined as “the gradual displacement of one language by another in the lives of the community members” (Dorian, 1982: 44, my emphasis). Again, the accent is on functional aspects of change, which may take place either in indigenous minority language settings or in transplanted immigrant language settings.

As far as the level of the individual is concerned, Dorian proposes that extensive language contact results most of the time in “...a partial shift, or even a partial merger...” affecting function and form of one of the languages.

So, if we sum up the propositions above, it appears that two factors are crucial for the distinction of different language contact outcomes:

- (a) the opposition between function and form of a language –‘shift’ being generally used to refer to change in function (namely reduced language use)–, and ‘change’ (or ‘loss’?) being used to refer to change in linguistic form;
- (b) the distinction between the community and the individual level, where ‘shift’ is generally used for the community level.

The individual level is less often investigated by these approaches, but we will see below that the consequences of language contact in the individual are often called ‘attrition’. One could add the distinction between the macro- and the micro level which is more or less identical to (b).

It has nevertheless to be noted that not all authors define ‘language shift’ by these two dimensions: many appear to refer to only one of these. For some –probably

³ Or in language death or extinction in extreme cases, but these cases would be beyond the scope of this paper.

the majority– it is the form-function dimension which is decisive (e.g., Clyne, 1986). For these authors, the term ‘shift’ may refer to reduced language use in individuals. For others the community-individual distinction seems to be the dominant feature and the term ‘shift’ is hence only used for changes (whatever their nature) on the community level.

2.2. Language shift, loss, and attrition

Having identified the major distinctions used in language contact research, I will now look into the terminology used in language loss research, i.e. in studies focusing on the ‘negative’ outcomes of language contact. More specifically, different suggestions made in order to distinguish ‘shift’, ‘loss’, and ‘attrition’ are presented. These terms are still used by many authors as if they were interchangeable synonyms.

Clyne (e.g., 1986, 2001) has repeatedly tried to put all this in order:

Shift, a sociolinguistic term, which tends to refer to the macro level of language, is an ambivalent term. It can denote the full replacement of one language by another, a partial/gradual one, or one that is limited to particular domains. Loss, a psycholinguistic term, refers to the micro level and generally denotes a decline in language skills.
(Clyne, 2001: 141)

From a psycholinguistic point of view, the use of the term ‘loss’ is rather problematic, since nothing allows us to state that a language can actually be lost in the psychological sense of the term⁴.

If we want to get around that problem, De Bot’s proposal (2001) is promising: he suggests that ‘loss’ should be the generic term. Within the field of language loss, ‘shift’ would be used to refer to intergenerational loss (cf. Van Els, 1986, who was one of the first to use this fairly popular distinction for attrition research) and ‘attrition’ for intragenerational loss.

This seems very reasonable, all the more so since it best corresponds to the real usage of the terms : what had already been extensively investigated by sociolinguists until the eighties was intergenerational language loss which is generally called ‘shift’. What was new in the eighties was the interest that came up for language loss in

⁴ Fromm (1970) reports on a case study where a completely forgotten language was recovered under hypnosis. A similar finding was reported in another study based on hypnosis (As, 1963), but to a lesser degree. Cerebral imagery techniques have not yet enabled the location of a forgotten childhood language (Pallier *et al.*, 2003), but this cannot be considered as a final result. forthcoming), but this cannot be considered as a final result.

individuals (consequently intragenerational language loss) and the use of new approaches (namely psycholinguistic ones) within the field.

De Bot's suggestion was criticised by Clyne (2001: 143) as the choice of 'loss' as the generic term would imply that "...language shift becomes dependent on language loss rather than the other way around..." which would be, according to Clyne, in contradiction to the importance De Bot rightly attaches to language use. Following Clyne's logic, this criticism is conceivable, but unfortunately Clyne only opposes loss and shift, discarding attrition. In this case there is indeed no reason to subordinate one to the other.

Since De Bot's proposal -or some variant of it- has been adopted by several authors in the field, namely by the younger ones (e.g., Yagmur, 1997; Hulsen, 2000; Schmid, 2002, etc.) I suggest following De Bot's terminology where the generic term 'language loss' is used to refer to any kind of negative language contact outcome, be it at the micro or the macro level. Within the field of language loss, 'attrition' (+ individual, + micro level, + competence/performance, + psycholinguistic, etc.) is opposed to 'shift' (+ community, + macro level, + language use, + sociolinguistic, etc.). It is felt by more and more researchers, that a clear-cut distinction between these different phenomenon would be helpful for getting global comprehension of individual language loss.

3. Attrition

When the field of language attrition arose in the beginning of the eighties, broad definitions like the following were not the exception:

...language attrition may refer to the loss of any language or any portion of a language by an individual or a speech community. It may refer to the declining use of mother tongue skills by those in bilingual situations or among ethnic minorities in (some) language contact situations where one language, for political or social reasons, comes to replace another.
(Lambert & Freed, 1982: 1)

Such a definition made sense in the context of the 1980 conference - since it allowed for example to define attrition as non-pathological language loss - but its broadness brings up the question of whether the interest in language attrition really added a new field to contact linguistics or whether it marked only the arrival of a new term (admittedly quite successfully since it is widely used by now). Indeed, in many cases, the term 'attrition' seems to be used as a synonym for language shift, language

loss or even language death and many papers do not provide any definition for these terms (e.g., Schmidt, 1991; Silva-Corvalán, 1991).

It nevertheless appears that the evolution of the field has brought more and more researchers to acknowledge the need for more precise definitions as can be seen in the following section.

3.1. Definitions

The huge variety of definitions⁵ which can be found in the literature seems to be largely dependent on the approach adopted by the researcher. Definitions either:

- focus on structure (linguistic approaches):

- [...] incorporation of L1 into L2. (Kaufman & Aronoff, 1991: 187)
- [...] dismanteling and reordering. (Maher, 1991, from Haugen, 1978: 37)
- [...] erosion (...) in the subjects' level of competence. (Olshtain & Barzilay, 1991: 139)
- [...] disintegration of the structure of a first language. (Seliger & Vago, 1991: 3).
- [...] any structural deviation from the standard may be identified as an attrition phenomenon. (Vago, 1991: 242)
- [...] gradual loss of a language by an individual. (Schmid, 2002: 5)

- focus on language use in the community (sociolinguistic approaches):

[...] the term 'language attrition' is understood to entail a loss of the norm - be it of the standard language, the dialect or also the sociolect. [Hiller-Foti (1985: 108, translated by Waas, 1996: 20)]

[...] we define language loss as a form of language change that causes potential communication problems between individuals and the community of which they consider themselves a member. (Jaspaert & Kroon, 1989: 80)

[...] language loss (...) is a process of gradual erosion of language skills due to limitations in use. (Jaspaert & Kroon, 1989: 95)

Language attrition is a natural phenomenon, prevalent in language contact situations where one language is not maintained by its speakers. (Waas, 1996: 29-30)

- or are more performance oriented (psycho- or neurolinguistic approaches):

- Attrition refers to loss of proficiency. (Oxford, 1982: 120)
- [...] reduction in accessibility [...]. (Sharwood Smith, 1983: 224)
- [...] the effects resulting from an individual's reduced use of the attrited language. (Olshtain, 1989: 151)
- [...] loss of facility [...]. (Obler & Mahecha, 1991: 53)

⁵ Due to the variation in terminology, we include definitions of language loss as well as definitions of language attrition...

[...] dissolution or attrition of language abilities within normal populations. (Seliger, 1991: 227)

Language attrition is a kind of forgetting. It can be characterised as negative change (i.e. decline, decrease) in linguistic knowledge (competence) and/or control over that knowledge (performance) [...]. (Ammerlaan, 1996: 1)

Language attrition, or language loss, refers to a phase or state of regression from mastery or competency in a language. (Pelc, 2001: 2)

Some definitions seem to summarise several approaches:

[...] originates from an attenuated awareness of the norm due to the 'ideolectalization' of verbal repertoires, positive retroaction (which dissolves the norm), and contraction in the range of functions. (Py, 1986: 166)

In other cases, the particularity of attrition compared to other language contact phenomena seems to be seen as a matter of degree:

The very term 'attrition' implies the first step toward loss of a language [...]. (Myers-Scotton, 2002: 165)

This joins Clyne's (1986: 488) suggestion of using the term 'attrition' for partial attrition and loss for total language loss (which has not been observed very often on an individual level, or only in very young children, cf. Kaufman, 2000; or Köpke, 2002, for a survey).

What the huge variety of definitions seems to indicate, is (a) there is a need to delimit the field and to situate it with respect to other language contact phenomena. This ambition can be found in more and more recent papers. Whereas older papers seemed to struggle with the bulk of terminology⁶, definitions are generally clearer in more recent papers.

In sum, the main characteristics which are retained to oppose the field of language attrition to other language contact outcomes are the following:

- non-pathological
- intragenerational
- individual
- affecting linguistic competence and/or performance, not only language use.

The differences between most of the definitions depend on the researcher's point of view. As Yagmur (1997: 13) summarised, the focus can be either on the causes of

⁶ See for example Waas' (1996) quite exhaustive survey which ends with the observation: "The closest cognate to language attrition remains language shift..." (Waas, 1996: 30), or Yagmur (1997: 14) who states: "Drawing a distinction between language attrition and language shift is highly problematic".

language attrition (sociological aspects), on what is lost (linguistic aspects) or on how it is lost (psycholinguistic aspects). In any case, attrition (just like bilingualism) seems to be more and more recognised as a multidisciplinary field: not only have pluridisciplinary approaches been preached repeatedly (e.g., De Bot, 2001, 2002; Schmid, Köpke, Keijzer & Weilemar, forthcoming), there are also more and more sociolinguistic studies using experimental tasks for data collection (e.g., Waas, 1996; Yagmur, 1997, Hulsen, 2000, etc.) and psycholinguistic studies taking into account sociolinguistic variables (e.g., Ammerlaan, 1996; Köpke, 1999, 2000).

3.2. Sociolinguistic factors intervening in L1 attrition

Many factors have been shown to have an impact on L1 attrition. But there are some factors which are particularly important as they might allow us to draw further important distinctions within the field of attrition. Not that splitting up the field further is supposed to be the solution, it is just felt that a clear analysis of each contact situation where attrition occurs would be helpful in understanding why the findings of empirical research are still that contradictory (cf. Köpke & Schmid, forthcoming).

A multitude of factors that play a major role in attrition have been identified, the most important being:

- Age: Studies involving subjects where the onset of attrition can be situated at different stages of the subjects' linguistic and cognitive development show an age effect, at least when the different age groups are situated before and after puberty (e.g., Paliji, 1990; Ammerlaan, 1996; Cuza-Blanco, 2002). Studies focusing solely on attrition in children (e.g., Olshtain, 1986; Cohen, 1989; Kaufman, 2000) clearly show that a no longer used language is better maintained by older children. The robustness of the results concerning the age variable suggests that it is important to distinguish between attrition in children and adults.

- Language use : Language use is generally measured through amount of contact with L1. This key variable has been shown repeatedly to play an important role in attrition (De Bot *et al.*, 1991; Waas, 1996; Köpke, 1999) but it is difficult to measure it with objective tools.

- Education level : A higher education level is seen to prevent attrition to some extent (Jaspaert & Kroon, 1989; Waas, 1996; Yagmur, 1997; Köpke, 1999, for the grammaticality judgement task only). It is possible that this aspect reinforces the age

effect in child attrition, since older children have the advantage of being literate in L1, and literacy seems to play an important role in language maintenance.

- Attitudinal factors : Just like language learning, attrition is influenced by attitudinal factors (Gardner & Lambert, 1972). Schmid's (2002) study on German Jews in anglophone countries is certainly the most striking example of an extreme case where the attitudinal factors outweigh all other variables (i.e., age and language use). Indeed, Schmid's findings show that the degree of persecution endured by the subject is decisive for the degree of attrition experienced. To a lesser degree, attitudes and motivations have been shown to play a role in other situations too (e.g., Waas, 1996; Köpke, 2000) and one can suppose that their impact is - at least to some extent - measured in studies based on the ethnolinguistic vitality framework (e.g., Yagmur, 1997; Hulsén, 2000).

It is obvious that sociolinguistic factors play a crucial role in attrition. As Thomason & Kaufman (1988: 35, quoted by Gardner-Chloros, 2001: 127) put it: "It is the sociolinguistic history of the speakers, and not the structure of their language, that is the primary determinant of the linguistic outcome of language contact".

The findings reported so far seem to indicate that this assumption is correct. It would certainly be interesting to consider not only the sociolinguistic history of the subjects, but also their present sociolinguistic situation. For example, if you take the following description from Py (1986):

Whenever a community of migrant workers establishes itself somewhere, it slowly creates a number of new rules of behaviour and communication which borrow elements from the home region as well as from the host region, but integrates these elements into new systems. (Py, 1986: 164)

This assumption seems to describe accurately what happens to the Spanish migrant workers in Neufchatel investigated by Py (1986), Grosjean & Py (1991) and Py & Grosjean (2002). It does not, however, hold for all migrant populations which have been looked into by attrition research. For example German migrants in France (Köpke, 1999, 2000, 2001, 2002) do not form any kind of community and one cannot say that there is any specific evolution of the German language in this population. Which is why I would like to suggest that the immediate sociolinguistic environment of the migrant and the characteristics of the contact situation are another crucial factor which has not received any attention until now. In particular, I think that it is important to distinguish between migrants who are part of a migrant community, and those who have hardly any

contact with migrants from the same home country. This factor could possibly have an influence on the type of attrition observed in each situation.

3.3. L1 attrition in linguistic communities vs. individuals

In Köpke (2001) I suggested that it would be interesting to distinguish different types of language attrition depending on the immigration setting. This claim was underscored by a pilot study comparing individual L1 performance data of some German migrants in Canada. Two of the subjects appeared to be representative of very different situations.

Subject 1, a 55 year old woman who has been living in Canada for 29 years, is a member of a German Club and socialises with other German migrants with whom she tries to speak German. Additionally, she goes to Germany once a year to visit her family.

Subject 3, a 64 year old man who has been living in Canada for 39 years, has no contact at all with other German speaking migrants and has not been to Germany for many years. He says he has no opportunity at all to speak German.

The data were gathered in two oral production tasks (picture description and sentence generation) and a grammaticality judgement task. A comparison of the results of each subject (see Köpke, 2001, for more details) shows that subject 1 –who has much more contact with L1 and who is a member of the German community of Montreal– evidences more difficulties in all three tasks than subject 3 who has no contact at all with his L1. Interestingly, the error patterns observed in oral production also diverge between the two subjects. The results from subject 3 are striking in that this man –who has made hardly any use of his German for nearly 40 years!⁷ –has almost no problems with grammar. His difficulties are limited to the use of prepositions and to lexical retrieval problems. Subject 1, on the other hand, evidences errors in every linguistic domain. She is the only subject in the sample who repeated the same errors several times (concerning prepositions and gender), suggesting a modification of linguistic competence. Note that she does not appear to be troubled by her difficulties in L1.

These observations led me to hypothesise that contact with other migrants in the host country would perhaps help to maintain access to L1, but it might well enhance restructuring of linguistic competence through repeated exposure to L1 input of other

⁷ Note that this subject did not want to speak German outside the experimental tasks.

L1 attriters and to learner varieties used by second generation immigrants. In this way the contact with other migrants can be seen as a factor preventing L1 maintenance in the sense of the L1 variety spoken in the home country. The findings from Schoenmakers-Klein Gunnewiek (1998) seem to corroborate this hypothesis. She compares two groups of Portuguese migrants in the Netherlands and in France. On the whole, very little attrition is found and, contrary to the author's expectations, there is a little bit more attrition in the French setting where there are much more Portuguese migrants than in the Netherlands. Schoenmakers explains this finding by the fact that Portuguese newspapers and radio programs in France are written by second generation immigrants most of the time who may speak a 'French' variety of Portuguese. So in this case, the attrition evidenced would not be due so much to 'loss' of L1, but rather to an evolution of the L1 norm in the French-Portuguese community.

These findings draw attention to another important aspect which has not yet been mentioned: according to Sharwood Smith (1983) attrition can affect linguistic knowledge (competence) or control of that knowledge (performance). Attrition at the performance level entails lexical retrieval problems and processing difficulties (Köpke, 1999). Attrition at the competence level implies a restructuring of linguistic competence, such as the integration of contact varieties observed by Grosjean & Py (1991) in the Spanish migrant worker community in Neufchatel.

My claim is that different contact situations (viz. implying individual speakers vs. members of a migrant community) are likely to give rise to different types of attrition, either more performance-oriented or more competence-oriented.

What exactly are the differences between these two migrant settings?

The characteristics of the migrant community setting imply that its members will be in contact with other immigrants from the same country, and also in contact with immigrants from the second or the third generation. The bilingualism of the members of the community favours a tendency to communicate on a bilingual mode (cf. Grosjean, 1992). The 'isolated' migrant, on the other hand, will have contact more with compatriots in the home country and less frequently. Hence, the main difference between the two settings concerns *input* (cf. also De Bot, 2002), which may differ in two ways:

a) Quality of input: more variation due to contact with other attrited first generation immigrants, with second and third generation immigrants and their different learner varieties, and with already restructured language varieties. All these varieties coexist with the language varieties spoken in the home country which are more and more accessible via telephone, cable TV and internet.

b) Quantity of input: it is difficult to say who will have more L1 input: the migrant living in a community or the migrant who is all on his own. This will depend a lot on the personal situation of each migrant. Certainly the infrastructure of the migrant community does not necessarily provide its members with more L1 input: at least in the German community of Montreal, many of our informants reported speaking English most of the time in German clubs, churches and parties. Contact with the L1 community in the country of origin is getting cheaper and easier accessible for everybody (see above). Distance between home and host country may play another role⁸ in this complex picture (cf. Köpke, 2000). In other migrant communities like the one described by Py (1986) and Grosjean & Py (1991) L1 is used on a daily basis and these migrants clearly have more L1 input than would have individual migrants.

In my opinion qualitative differences in input are certainly more important than quantity of input in determining the type of attrition which is likely to occur. If the migrant has no contact with other migrants and if his only input is the L1 variety of the home country (even in a small quantity...), I expect attrition to occur, characterised by inaccessibility of L1 –manifesting itself via lexical retrieval difficulties and processing problems. If the migrant is in contact with a migrant community, his input will be richer (and quantitatively more important) and the migrant will, step by step, adjust his internal norm to the one of the migrant community.

4. Conclusion

I suggested adopting the term ‘loss’, as did De Bot (2001), to refer to any negative language contact outcome. ‘Shift’ should be used for intergenerational

⁸ Note that all studies focusing on European immigrants in an European country evidence only little attrition, if any (Jordens *et al.*, 1989; De Bot *et al.*, 1991; Schoenmakers-Klein Gunnewiek, 1998; Köpke, 1999 for group F).

displacement of language use and ‘attrition’ for referring to individual, intragenerational language loss.

Within the field of attrition, it is crucial to take into account the direct sociolinguistic environment of the informants. Informants who are part of a migrant community may undergo restructuring of their linguistic competence through the evolution of the community L1 norm in contact with L2. Individual migrants, on the contrary, who have no opportunity to use L1 in the host country, are more likely to suffer from performance attrition implying retrieval problems and difficulties in online processing of L1.

The aim of this paper was not to revolutionise the world of language contact research, but simply to put a little bit of order among the mass of approaches and terminologies that can be found in the literature. It seems to me that an approximate consensus in the use of terminology would greatly help the understanding of the contact phenomena investigated by different researchers and favour cross-disciplinary communication and perhaps even comparison!

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