

When is a bilingual an attriter? – Response to the commentaries

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First language attrition is a ubiquitous phenomenon
found wherever there is bilingualism.
Seliger 1991:227

We are delighted by the wide range of constructive and controversial commentaries in response to our attempt to make “effects of the second language on the first” (Cook, 2003) a more integral part of the wider field of bilingualism. For the purpose of this response, we will refer to such effects as EotSLotF.

We would like to thank all commentators for their thoughtful and careful engagement with our keynote article and look forward to the future debates and developments which we hope this epistemological issue will initiate and shape. In particular, we are excited by the theoretical advances and considerations proposed by many of the contributions (among others, by Allen, de Bot, Domínguez, Gyllstad & Suhonen, Keijzer, MacWhinney, Sanchez and Tsimplici), which will no doubt contribute to a more sophisticated and informed debate within attrition studies in future, and hopefully also influence the wider field of bilingualism research. Unfortunately, space constraints prevent us from engaging with these proposals here, and we will instead address and clarify those parts of our argument which have sparked controversy, in particular questions relating to the definition, scope and limitation of attrition effects.

There are a number of issues on which all contributors are in agreement. The first, and most important, of these relates to the bidirectionality of crosslinguistic influence (a term first proposed by Sharwood Smith, 1982): When a previously monolingual speaker –for the time being let us imagine an adolescent or adult– begins to acquire and use a second language (L2), the L1 inevitably plays an important role, shaping and constraining the developmental process. However, the acquisition and use of other languages also have immediate, tangible and measurable ramifications for the first one (L1). These ramifications, or EotSLotF, will change over time, modulated by a wide range of external factors (such as amount of use and length of exposure, but also aptitude, motivation, L2 proficiency, etc.) in ways which are, to date, poorly understood. EotSLotF will thus usually not develop in a linear fashion: In some situations, in some settings, in some life phases, these effects may be less or more pronounced both within and across bilingual individuals.

A second uncontroversial point is one which we have pointed out before (e.g., Köpke & Schmid, 2004), namely that there are two ways in which EotSLotF can manifest themselves: “a) pre-existing linguistic knowledge becomes less accessible or is modified to some extent as a result of the acquisition of a new language, and b) L1 production, processing or comprehension are affected by the presence of this other language” (Schmid & Köpke, p. \$\$\$). While this observation in itself is also uncontroversial, many of the commentaries question our proposal to:

- a) consider phenomena of both types as belonging to the same developmental spectrum;
- b) subsume them both under the label of *language attrition*; and thus
- c) argue that every bilingual is an attriter (recall that we are at present talking about *late* bilinguals).

With respect to the first point, many of the commentaries argue for a need to distinguish EotSLotF which reach the level of *representation* from those which are a matter of *processing* (among others Gürel, Tsimpli). In the first instance, of course, our proposal to consider both types of phenomena as representing developmental stages on one and the same continuum was never intended to suggest that attempts to differentiate them should be abandoned, but that they should be brought together under one common denominator. As Domínguez points out, there is inevitably an interplay between processing difficulties and structural reconfigurations. What we reject is the view that only the latter should be considered instances of attrition, and we instead argue for a broader view capable of investigating and assessing them in relation to each other, across the full continuum of bilingual development.

Furthermore, as we have pointed out, both in the keynote and elsewhere, the available evidence suggests that among first-generation immigrants who are late bilinguals, structural reconfigurations are, at the very least, extremely rare: attriters commonly show accuracy on morphosyntactic features such as agreement above 95% of obligatory contexts (Montrul, 2008, p. 265) – well above any of the thresholds usually applied within studies of L2 acquisition as the yardstick for having attained target-like representations of a particular structure (Schmid, 2013).¹ Far more common are changes to the statistical distribution of

¹ To our knowledge, the only two individuals ever studied who became bilingual after puberty and who show indications of consistent and apparently categorical misapplications of a particular property are the Spanish-Portuguese bilingual studied by Iverson (2012) and discussed in more detail in our keynote paper (p. \$\$\$) and one of the Albanian-English speakers investigated in de Leeuw, Tusha & Schmid (2017, see de Leeuw’s commentary) who seems to have neutralized a phonemic contrast. Beyond these two cases, the evidence of

grammatical features which monolinguals also allow to some extent but apply more restrictively (e.g., Tsimpli et al., 2004 on null and overt syntactic subjects; Gürel & Yilmaz, 2011 on Turkish anaphors, among many others). These shifts are often reflective of distributional properties of the variety of either the L1 or the L2 which is spoken in the new community, and they are influenced by patterns of code-switching and co-activation (see Domínguez, Perpiñán) and the speaker's sensitivity to statistical distributions of grammatical properties (Nagy). Distributional patterns vary over time within the same individual and may re-converge towards the target norms upon relatively short periods of re-exposure to the original L1 variety of the speaker (e.g., Genevska-Hanke, 2016) but they are not necessarily indications of erosion or structural loss.

These findings suggest that the phenomenon which is commonly described under the term *attrition* is, in the vast majority of cases, more likely to be a matter of on-line processing than an indication of structural erosion. It should be noted, however, that the distinction remains a problematic one to make: While many commentaries object to a broad definition of attrition, none of them proposes a workable definition by which the categorization of EotSLoTF phenomena into processing vs. representation, and consequently loss vs. non-loss, could be achieved. The use of on-line vs. off-line tasks (as suggested for example by Montrul and Tsimpli) is certainly a step in the right direction. However, on-line and off-line tasks do not map neatly onto performance vs. competence, respectively. On the one hand, no single task is completely off-line, allowing to capture competence without interference from performance, and on the other, on-line experiments are often based on artificial materials and a high number of tokens of the same structure. They may thus not be representative of natural processing, and elicit higher levels of metalinguistic awareness as the task progresses and the target structure becomes evident (see e.g. Altenberg, 1991 and Altenberg & Vago, 2004 for a discussion of on-line and off-line tasks in the study of L1 attrition).

At the level of the participant, the distinction between attrition and non-attrition is equally problematic: most attrition studies find that a number of bilingual participants score within the monolingual range on *some* of the tasks (as pointed out by de Leeuw), but the same participant will often score outside this range on others.² Using self-assessments (as

attrition found so far is limited to distributional changes, and the question of whether the more consistent changes observed by Iverson and de Leeuw et al. would persist upon re-exposure is open.

² For example, of the 20 speakers in de Leeuw, Schmid, & Mennen (2010) who scored within the native range in terms of perceived foreign accent, eight fell outside that range with respect to their performance on a C-Test, Verbal Fluency Task, and/or lexical sophistication, accuracy and fluency in free speech.

suggested by Kasparian & Steinhauer) as an inclusion criterion is similarly fraught with difficulty, as such introspective reports are susceptible to minor variations in elicitation and, more importantly, have not consistently been shown to have predictive power for actual linguistic tasks.³

The attempt to distinguish those EotSLotF which are a matter of representation from those which are not, and to only consider the former to actually be *attrition* has furthermore had the effect of dividing the research field into two subareas which often take little or no notice of each other. This search for a criterion capable of dividing a larger sample (e.g., all late bilinguals) into distinct subpopulations (e.g., attriters and non-attriters) – for example, immersion periods of over 10 years, self-perceived attrition, or performance outside the native range – is, in our view, a regrettable outcome of a research tradition which over-relies on categorical predictors. This tradition has been linked to the wide availability and comparative conceptual accessibility of statistical tests based on population means or medians (the “ANOVA mindset syndrome”; MacCallum, 1998), and has been criticized for the loss of informative variability inevitably entailed when dividing continuously measured predictors – such as age of acquisition (AoA), proficiency, working memory, length of residence, or self-perceived attrition – into artificial, discrete and often arbitrary categories (Plonsky & Oswald, 2016).

We argue that such discrete categories may not exist: All bilingual speakers – beginners and veterans, with balanced or asymmetric proficiency, and of all ages of onset and all types of acquisition (instructed or immersed) – have what Cook terms a linguistic "supersystem" (e.g., Cook, 1999, 2003) in which the way in which each language is handled is affected by the presence of the other. Everything else is a matter of degree, hence our assertion that “every bilingual is also an attriter” (\$\$\$). However, the consequence of the mindset driven by the "attrition = erosion" assumption has been that in the population where

³ While the feeling of being an attriter proved an interesting inclusion criterion in the studies by Kasparian et al. (e.g., Kasparian, Vespignani, & Steinhauer, 2016), studies using the Language Attrition Test Battery (www.languageattrition.org) show that responses to such questions are often inconsistent. The question of self-perceived attrition is included twice in the Sociolinguistic Questionnaire proposed as part of this battery (Questions 24/25 and 67). Among 106 participants (described in Schmid & Dusseldorp, 2010) only one third responded consistently that their L1 either had or had not deteriorated. Neither of the responses was a significant predictor for the performance on any of the tasks described by Schmid & Dusseldorp (2010). Similarly, Opitz (2011:221) found that speakers who in the first instance reported no change to their L1 then sometimes went on to enumerate areas which had become problematic for them (such as lexical access).

erosion was *expected*, those EotSLotF were called attrition. In other populations, for example early-stage L2 learners, different terminologies were used although similar effects were found (e.g. slower lexical access, increased effects of frequency or non-selective syntactic activation, see section 3 of our keynote paper). This has had the regrettable effect of fracturing the field and masking very relevant findings from one cohort to researchers studying the other (Bylund). The fact that none of the twenty commentaries in this volume represent the perspective of on-line, transient EotSLotF as they occur in early stages of bilingual development may well be an indication of the blinkering effect of this division.

Many commentaries argue that our attempt to subsume different types of EotSLotF under the same heading collapses distinct phenomena and may lead to a lack of conceptual clarity (e.g., Bardovi-Harlig & Stringer, Gürel, Meisel). We would argue that a similar point can be made about the term 'bilingualism', which historically was taken to imply an individual who commands both languages at the monolingual level (e.g., Bloomfield 1933: 56 – who, interestingly, explicitly excludes those cases where "perfect foreign-language learning" is "accompanied by loss of the native language" from this definition, see also Ortega, 2016: 66) but today is used to describe any individual able to use two or more languages productively. This conceptual broadening has not, we feel, led to vagueness and a loss of clarity for bilingualism research, nor to the impossibility of distinguishing different types of bilinguals, and we do not see why it should for language attrition. We hope instead that conceiving of developmental processes which, to date, have been assumed to be categorically distinct from each other as being situated on a larger continuum will lead to a better understanding: it will allow modeling the impact of predictors more accurately and comprehensively and comparing EotSLotF at all stages of bilingual development, and thus lead to a better understanding (as suggested by Allen).

Needless to say, our call for conceiving of all sequential bilinguals as attriters does not imply that any particular study should not pre-select its participants in a way that is consistent with the research question, for example according to their age of acquisition (AoA), proficiency, literacy, length of residence, or other criteria that may be relevant, and/or contrast different levels of these predictors (as de Leeuw seems to suggest). Any such study should, however, interpret its findings against other investigations which may have used different levels of these predictors, and it should not be conceptually limited to comparisons with results from studies investigating similar populations.

Finally, we would like to address the point which several of the commentaries (among them Bylund, Flores, Kupisch et al., Montrul) have correctly identified as the elephant in the

room: the role of AoA. The first draft of our article contained an extensive section on the role of AoA which, due to length restrictions, ended up on the cutting room floor. In brief, we feel that investigations of the development EotSLotF as a function of AoA suffer even more strongly from the tendency to focus on the extreme ends of the spectrum – in this case, bilingualism from birth vs. bilingualism after puberty – than is the case for investigations of different stages of the attritional process in late learners. The rapidly expanding field of Heritage Language Development has provided important insights into processes of bidirectional crosslinguistic influence in simultaneous and early sequential bilinguals, but is almost invariably limited to AoAs <6. Language attrition studies, on the other hand, rarely consider individuals who become bilingual below around 15. While HL studies have found a very wide range of variability in endstate proficiency in the birth language, ranging from populations with purely receptive knowledge (e.g., Montrul, 2010) to full proficiency similar to that of monolinguals (Kupisch et al.), studies of attrition in late bilinguals show far more homogenous results. Taken together, these findings suggest that there may be developmental changes in the native language in the AoA range between 6 and 15 years, i.e., in the blind spot between the two fields, which contribute to the stabilization of linguistic representations (Montrul). These developments may unfold along the lines suggested by Usage-Based models (in particular the approach proposed by MacWhinney, but see also Keijzer and others), or in accordance with the generative model underlying, for example, Meisel's or Tsimpli's commentaries. As Flores points out, both cross-sectional and longitudinal investigations of the entire range of AoA (as well as age at testing) are necessary in order to fully map these developments and establish their underlying causes.

The last point to address is whether 'attrition' is a felicitous label for the processes referred to here as EotSLotF. First coined by none other than the great Einar Haugen (1938: reprinted 1972, pp. 1-2), it does carry the conventionalized implication of erosion or loss (Gyllstad & Suhonen). We find it interesting that some of the contributors to the present debate who have extensively worked on language attrition have no problem accepting this term as a general label for EotSLotF (e.g., Bylund, Keijzer, Montrul) while among those whose work is predominantly situated in other areas of bilingualism research a reluctance prevails to accept the notion of 'attrition without loss' (e.g., Bardovi-Harlig & Stringer, Meisel). It seems, therefore, that within the field of attrition studies, the meaning of the label has come to evolve in accordance with the actual phenomena that were being described and discovered. Our proposal to consider all types and stages of EotSLotF as part and parcel of the same developmental processes, and subsume them under the same label, did thus not arise

from Humpty-Dumpty-like capriciousness (Meisel) but reflects a change in meaning that has long since taken hold. What makes us reluctant to propose a change of label is a fear for the cohesion of the field, in a time where research that is not visible to Google Scholar is, for all intents and purposes, nonexistent – a major problem with phrases such as "effects of the second language on the first". As we pointed out above, language attrition research originally set out in search of one thing but eventually discovered quite another – but kept on referring to it under the label that was first chosen. We hope that the concept of ‘attrition without erosion’ will come to be more widely accepted as insights into the nature of attritional processes as well as their limits percolate through the community of bilingualism research.

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