

Effects of bilingualism on the acquisition of a third language



An analysis of the effects of bilingualism on the acquisition of a third language.

Literature review

The study of third language acquisition combines two fields which have in previous years remained separated by researchers: second language acquisition and bilingualism.

Cenoz (2003, p. 71) describes third language acquisition as the “*ability to acquire a non-native language by learners who have previously acquired or are acquiring two other languages.*” It is also mentioned that the acquisition of the first two languages can either be simultaneous or consecutive.

“*Generative studies on L3 acquisition only began to surface in significant numbers in the latter part of the 2000s (e. g. Leung, 2001, 2005, 2007a, 2007b; Flynn et al., 2004; Bardel and Falk, 2007; Jaensch, 2008; Cabrelli Amaro et al., 2009; Cabrelli Amaro and Rothman, 2010).*” (Rothman, J., Iverson, M. & Judy, T. 2011). In the field it is generally acknowledged that Pearl and Lambert’s study (1962) on the effect of bilingualism on cognitive development was a significant breakthrough in the study of bilingualism (Baker, 2001; Hamers & Blanc, 2000).

In the Sixties and Seventies researchers such as Albert & Obler, 1978; Jacobsen & Imhoof, 1974; Lerea & Kohut, 1961; Saif & Sheldon, 1969; Vildomec, 1963 proposed that additional languages are acquired by bilinguals and multilinguals more efficiently than by monolinguals. This means that the more languages a person knows, the easier it is for them to

acquire additional languages. If this is the case, bilinguals will make more significant progress when learning a third language than a monolingual would when learning a second language.

This can be supported by the study carried out by McLaughlin, B., & Nayak, N. (1989) which compared the strategies used by monolingual and bi/multilingual learners, reporting that bilinguals and multilinguals use a fuller range of linguistic and mnemonic strategies thus being more flexible in their use than monolinguals. This is due to third-language students having the ability to use their knowledge of two languages and the experience of the acquisition process of another language, compared to second language students who can only use their first.

Lado (1957) created the Contrastive Analysis Hypothesis (CAH) which claims that when learning a new language it is possible to predict learning difficulties and identify patterns (Ellis, 1986). Lado (1957) made the assumption that "*... the student who comes into contact with a foreign language will find some features of it quite easy and others extremely difficult. Those elements that are very similar to his native language will be simple for him, and those elements that are different will be difficult*" (Lado, 1957, p. 2 in Ellis 1994, p. 306 cited by Tao, Guo et al (2008)).

This study can be supported by the behaviourist theory (Ellis, 1986) which suggests that 'old habits get in the way of learning new habits'; this refers to the interferences from L1 over L2, resulting in proactive inhibition. This proactive inhibition implies that transfer will be negative when L1 and L2 share a meaning but express it in a different way, for example a native

Italian speaker wanting to express their age through the phrase ' I have 24 years' in L2 English. For a bilingual who has the ability to draw on an already similar L2, for example another latinate language, it may be possible to avoid this interference.

Rothman, et al. (2011) believes that there are at least four logical possibilities for how transfer manifests, since L3 has more than one possible source of transfer.

1 - "*No transfer position*" (Rothman, et al. 2011. p. 8). This suggests that the initial state of any adult language learning situation is one and the same, devoid of previous linguistic knowledge at the level of morphosyntactic structure. Though this position has never been defensibly claimed in L3 research, it could be argued and tested on the basis of extending the no transfer hypothesis from L2 into L3 studies (e. g. Epstein et al., 1996; Platzack, 1996).

2 - "*L1 factor*" (Rothman, et al. 2011. p. 8). This position gives the privileged status as the sole source of morphosyntactic transfer to all cases of language acquisition in adulthood to the L1, possibly for process ability reasons (Håkansson et al., 2002). This factor is based on cases of L3 acquisition after adult L2 acquisition as opposed to adult L3 acquisition after child L2 or simultaneous bilingualism; as the L2 features are new and they should not be available for transfer.

3 - 'L2 status factor' formalised by Bardel and Falk (2007 and 2011) while borrowing the label from work on the L3 lexicon by Williams and

Hammarberg (1998) and Hammarberg (2001) suggests that L2 has a
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privileged standing for morphosyntactic transfer. Bardel and Falk (2007) concluded that the most recently acquired language, L2, precluded direct access to the morphosyntactic L1 system, even when there were linguistic relations and related relationships between L1 and L3.

4 - The fourth position rejects the notion of a privileged transfer status for either of the two previously acquired systems, thus maintaining that features and functional categories from either the L1 or L2 can be transferred. Such an approach has been divided under two formal models, the Cumulative Enhancement Model (C. E. M.) of Flynn et al. (2004) and the Typological Primary Model (T. P. M.) of Rothman (2011). These two models are remarkably different from each other although it is agreed that all previously acquired language characteristics are available for transfer.

C. E. M. was based on the investigation of L3 oral production of restrictive relative clauses in L1 Kazakh / L2 Russian / L3 English speakers made by Flynn et al. (2004). Based on C. E. M., language acquisition is both cumulative and non-redundant, signifying that any prior language can either facilitate subsequent language acquisition or remain neutral. C. E. M. also predicts that if transfer is negative between one of the sources and the L3, then transfer simply does not obtain, and any previously acquired linguistic knowledge from both L1 and L2 can only positively impact the acquisition of L3.

T. P. M. (Rothman et al., 2011) theorises that non-facilitative transfer can occur based on typological proximity - actual or real - between the languages. Though T. P. M. is formalised in Rothman's article (2011), it stems from his

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previous collaborative work with Cabrelli Amaro, (2010) in which they investigated L3 French and Italian, where English was the L1 and successful Spanish was the L2. Throughout their research they examined properties related to the Null-Subjects Parameter (a sentence in which the subject is absent). It was demonstrated that the L3 learners transferred Spanish, the L2 and typologically related language, even though English is able to provide a correct value for French.

Rothman et al (2011) showed that the C. E. M.'s expectations that negative transfer does not occur was not verifiable. In view of their methodology, they were unable to distinguish a true typological primacy approach from an L2 status factor as the two variables overlapped. Though, work that is able to differentiate these variables, e. g. evidence presented in Rothman et al. (2011) and Montrul et al.'s (2011) studies, outwardly favour a strong role for typological proximity as a deterministic variable. This is perhaps the most significant variable when deciding between what factors form multilingual transfer.

Generative L3 acquisition has inherited a number of key questions from L2 acquisition, including the issue of full transfer, partial transfer & no transfer at the initial case of acquisition. Unlike L2 acquisition, L3 acquisition occurs in the presence of not just one, but two potential sources of Cross Linguistic Influence (CLI) on a subsequently acquired language. The key issue in this regard is whether the two previously learned languages have an affect on L3 acquisition, or whether it is only one of the languages that is the main or only source of CLI. (Westergaard et al. 2017. p. 667).

In the case of CLI coming from the previous two languages learnt, it is usually assumed that the source of influence is determined on a property-by-property basis (e. g. Berkes & Flynn, 2012; Flynn et al., 2004). However, in the case of only one language being the main source, transfer may be assumed to happen all at once (e. g. Leung, 1998, 2003; Rothman, 2011, 2015).

A variety of factors have been said to affect the choice of language for CLI, including order of acquisition (e. g. Bardel & Falk, 2007; Jin, 2009; Na Ranong & Leung, 2009) and typological proximity, as supported by Rothman et al. (2011). This is also supported by studies carried out by De Angelis, 2007; Foote, 2009; Leung, 1998, 2003; Rothman & Cabrelli Amaro, 2010.

Order of acquisition. One of the possible scenarios in L3 acquisition is transfer from the L1, this indicates that the learner's native language is the main source of influence.

Other studies have found influence from the L2, this led to the L2 Status Factor model, according to which the L2 is a privileged source of transfer, especially at early stages (Bardel & Falk, 2007, 2012). The L2 Status Factor model has supporting experimental evidence that suggests that implicit linguistic competence and explicit metalinguistic knowledge are neuro linguistically distinct and have different memory sources (Paradis, 2004, 2009), the former being sustained by procedural memory and the latter by declarative memory (Ullmann, 2001). This means that while L1 grammar is implicitly acquired and sustained by procedural memory, L2 grammar is usually based on precise knowledge and sustained by declarative memory.

Therefore, since L3 grammar is learned the same way as L2 grammar, transfer will occur between the two languages that are both stored in declarative memory (Westergaard et al. 2017).

Typological Proximity. Westergaard et al. (2017) discusses some models of L3 acquisition, including those that argue that either the L1 or the L2 has a privileged status with respect to CLI. It then goes on to consider models that focus on the role of structural factors, including The Cumulative Enhancement Model (C. E. M.) (Berkes & Flynn, 2012; Flynn et al., 2004) as well as typology-based models such as The Interlanguage Transfer Hypothesis (I. T. H.) (Leung, 1998, 2003), the Typological Primacy Model (T. P. M.) (Rothman, 2011, 2015) and The Linguistic Proximity Model (Westergaard et al. 2017).

The Interlanguage Transfer Hypothesis. I. T. H. uses Kellerman's (1979, 1983) idea of psychotypology, signifying the use of the language learner's perception of the source and target languages' properties as close vs. distant and core vs. non-core. Following this theory it would be predicted to see transfer affecting close/core properties. Referring to the Full Transfer Full Access hypothesis (Schwartz & Sprouse, 1996), Leung proposed that full transfer would be seen during L3 acquisition from the most psychotypologically close language. The I. T. H. thus argues that '*the Ln initial state is the steady state of a previously acquired (inter)language which is typologically closest to Ln*' (Leung 2003, p. 199).

The Linguistic Proximity Model. The most significant counter for typology-based models is the reported existence of CLI from the typologically more

distant language, e. g. Jin (2009) showed the influence from L1 Chinese (instead of L2 English) into L3 Norwegian, and Hermas (2014), showed the influence from L1 Arabic (instead of L2 French) into L3 English. The C. E. M., contrarily, cannot explain the findings of non-facilitative influence in L3 acquisition, e. g. Rothman and Cabrelli Amaro (2010), shows transfer from L2 Spanish into L3 French for the null subject property. The L. P. M., in turn, argues that CLI happens from both previously learned languages.

The L. P. M. builds on what is considered to be the positive aspects of the C. E. M. and the T. P. M., in the sense that certain similarities between the three languages play a major role, not just the order of acquisition. Instead of arguing that general typological proximity is the decisive factor, Westergaard et al. (2017) claims that similarity of abstract linguistic properties is the main cause of CLI from previously learned languages; L. P. M. therefore allows for both facilitative and non-facilitative influence.

Other studies on bilinguals (e. g. Bialystok, 2011) show that the language that is not in use still remains active and must typically be inhibited when speaking the other language.

This means that bilinguals learning an L3 (whether they have two first languages or an L1 plus an L2) should be able to benefit from both of the languages they know. Conversely, they may also experience some non-facilitative influence from either language. (Westergaard et al. 2017).

Additionally, the L. P. M. predicts different learning patterns for different linguistic phenomena. Westergaard et al. (2017) explains that the source of

CLI with respect to a particular property is based on structural similarities
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between the L3 and one or both of the previously acquired languages, rather than overall typological proximity between just one of them and the L3.

Evidently, this kind of CLI could take place only if the learner is able to identify abstract linguistic properties.

Unlike any typology-based models, the L. P. M. does not assume the idea of complete transfer of one of the previously acquired grammars early on in L3 acquisition, and excludes any influence from the other language at this stage. (Westergaard et al. 2017).

The majority of research identifies the typological proximity between L1/L2 and L3 to be the main cause of interference of L3 acquisition. It could therefore be argued that bilinguals have a stronger chance of interference due to the two language bases already known, as a learner could see interference from just one or both of these languages. On the other hand, there is evidence for positive transfer because of the two languages as seen in the behaviourist theory (Ellis, 1986). There is however very little research done in this field so far and so further investigations would be needed to form a concrete answer on how bilingualism affects L3 acquisition.

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