

# Learning a second language



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Can learning an L2 cause L1 attrition?

Attrition is the non-pathological, not age-related loss of a language. Speakers learning a second language often experience a change in the way they process their native language, a process called L1 attrition. L1 attrition often occurs in migrant individuals, since they immerse themselves fully into another language. It is expected that, as someone learns an L2 in an immersion environment, some crosslinguistic interference might happen. This interference can happen in both directions: just as the L2 is influenced by the L1, the L1 can assimilate to the L2. The present paper discusses the possibility of L1 phonetic attrition caused by the acquiring of an L2. Phonetic attrition is the loss of phonetic segments and/or suprasegmental features and/or the adaptation to other phonetic units. This paper will discuss how phonetic attrition can affect the production of sounds and suprasegmental features, specifically peak alignment. It will also discuss how phonetic attrition can happen in beginner learners in classroom settings as well as the more expected case of complete language immersion.

Mennen (2004) pursued the question of whether Dutch non-native speakers of Greek are able to produce cross-linguistic differences in the timing of peak alignments in both their languages. He conducted two experiments to answer his question.

The first experiment tested whether experienced L2 speakers (Dutch non-native speakers of Greek) can produce accurate  $f_0$  timing in their L2 (Greek). A further aim of this study was to see whether an influence from the L1

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(Dutch) can be observed in the L2. The participants were divided into three groups: five native Dutch speakers (D), five native Greek speakers (G), and five non-native (Dutch) speakers of Greek (DG). All participants in the LG group were late bilinguals with experience in their L2 ranging from 12 to 35 years, used their L2 regularly, and were college educated. The materials used in the first experiment were 20 declaratives in Greek and 40 declaratives in Dutch (further divided into 20 declaratives containing short vowels and 20 declaratives containing long vowels). The participants were asked to read the test sentences twice in a random order. Group D read two sets of sentences in Dutch (declaratives containing short and long vowels), while groups G and DG only read the set of sentences in Greek. The readings were recorded and their peak alignment onset measured. The speakers were asked to repeat any mispronounced sentences. When comparing group DG's alignment data to that of groups G, the results showed clear differences in their peak alignment times. Four out of the five L2 learners aligned their peaks earlier than native Greek speakers. When compared to group's D data, the peaks alignments were closer in time but still not native-like. This result showed that L2 speakers could not reach a native-like production of peak alignments in their L2, Greek. At the same time, this shows cross-linguistic influence from the L1 into the L2.

The second experiment was conducted to investigate if Dutch non-native speakers of Greek were able to maintain correct peak alignment times in their L1. The materials and procedure were the same as in experiment 1, as for the participants, only groups D and DG were required for this experiment. The results from this second experiment showed a difference in peak

alignment times in both sets of sentences in Dutch for both groups; this difference however was smaller in the DG group, and therefore non-native like. From both these experiments, Mennen concluded that Dutch on-native speakers of Greek fail to produce native-like peak alignments in their L1 and L2, which can be interpreted as L1 phonetic attrition.

In 2012, Chang conducted an experiment with the goal of examining the extent to which the L1 can change during L2 learning in beginner L2 learners, and also if the L1 would be affected within the first weeks of acquisition.

For this experiment, two groups of participants were recruited: an L2 learner group, consisting of 36 adult native speakers of American English learning Korean and a control group consisting of nine native Korean speakers. The L2ers group lived in a South Korean university campus and were starting an intensive six week course of introductory Korean (the equivalent of a semester of college-level Korean classes) The participants had no significant previous exposure to Korean and although they were living in Korea, their interactions were limited to other L2 learners. The materials in this experiment consisted of 22 Korean and 23 English monosyllabic items. There were 15 critical items beginning with plosives. The participants were asked to read the monosyllables and their VOT for the critical items was recorded. The results from this experiment showed that by week five, phonetic attrition of the learners' English in approximation to Korean. That is to say, the VOT of the learners' English plosives stopped being native-like and drifted into being more like the Korean stops they had been learning. The learners' production of English voiceless stops and Korean aspirated stops lengthened in VOT in a <https://assignbuster.com/learning-a-second-language-essay-samples/>

manner that suggests they were coordinated. From this experiment, Chang concluded that phonemic attrition can occur rapidly, in a class-room setting, due to cross-linguistic interference even during the first weeks of instruction.

The next study, by Mayr et al. (2013), investigates whether L1 attrition has occurred in the speech of a monozygotic twin who emigrated from the L1 environment 30 years ago. This was tested by comparing her speech productions to those of her identical twin sister, who has been living in the L1-speaking environment all her life.

The participants consisted of identical twin sisters MZ and TZ, both of which were consecutive Dutch-English bilinguals. They were 62 years old at the time of the study. Their language background is as follows: MZ and TZ grew up together in the Netherlands, where they acquired their L1. In high school, both were introduced to English as their L2 and later acquired jobs in an international telecommunications company, where they only spoke English. At age 32 MZ left the Netherlands to live in the UK, where she had a daughter (also Dutch-English bilingual). MZ reported to preferring English in her everyday life, but speaks both Dutch and English with her daughter (she also reported frequent code-switching with her daughter). In contrast, TZ stayed in the Netherlands her whole life and stopped using English once she left her telecommunications job. The materials consisted of 20 monosyllabic Dutch target words and 20 monosyllabic English target words. The participants were asked to produce each target word four times, randomly, in the following fashion: “ I say X” (for English targets) and “ Ik zei X” (for Dutch targets). This resulted in 80 Dutch tokens and 96 English tokens per participant. The researchers measured the VOT of plosives in both

languages. The data for each language was recorded in different days (appropriately far from each other) to avoid the effects of language suppression and activation during the process. The results of this experiment showed clear phonetic attrition in MZ's production of voiceless plosives, which indicate cross-linguistic assimilation patterns. She produced VOT values that are longer than the Dutch norm, while TZ's VOT values were perfectly within the Dutch norm. MZ's VOT values were much more similar to her English VOT values than to her sister's Dutch VOT values. The researchers concluded that this difference was caused by cross-linguistic influences from MZ's L2 into her L1, which caused L1 attrition. They also mentioned that MZ's code switching interactions with her daughter might have a large part in her L1 attrition, since bilinguals that code switch are more likely to be perceived as foreigners or more heavily accented by native speakers.

The last study, by de Leeuw et al. (2010), investigated how the acquisition of an L2 affects the accentedness of the L1 in two different consecutive bilingual groups with different L2s by comparing them to monolingual native speakers of their L1.

For this experiment, 34 German immigrants in Anglophone Canada, 23 German immigrants in the Netherlands, and five German monolingual controls in Germany were recruited. The speakers were questioned on different aspects of their language usage, such as the frequency with which they used their L1, or if they code-switched between languages (this question was not asked explicitly). A group of 19 German listeners were also recruited. They had a minimal or non-existent knowledge of English and

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Dutch and were not bilingual. The materials consisted of speech samples of a film retelling (not a script, but a scene to describe spontaneously). The participants were asked to record the speech samples in their own homes to ensure their comfort. One speech sample from each participant was obtained and then presented to the group of 19 German judges, which then assessed the speech samples in a scale from 1 (certain of non-native status) to 6 (certain of native status). The results showed that bilingual speakers (both English and Dutch as L2) are more likely to be perceived as foreigners than the German control group. Also, that the amount of informal use of the L1 does not impact on the degree of perceived foreign accent, and that speakers who use this language for professional purposes are less likely to be perceived as foreigners. From these results phonetic the bilingual speakers can be concluded to experience L1 phonetic attrition, which would explain why their L1 production was perceived as foreign.

In the present paper, the possibility of phonetic attrition as a result of acquiring a second language was assessed. The results from the previously discussed experiments all point towards the obvious conclusion that phonetic attrition can be caused by cross linguistic influence from the L2 into the L1. The results also show that phonetic attrition can occur rapidly among beginner L2 learners in classroom settings, but that it is more prominent in immersion settings, such as that of immigrants.

Although phonetic L1 attrition, and L1 attrition in general, is a common phenomenon among immigrants and there is no evidence that it affects L1 speech in a way that prevents other speakers of the language from recognizing what has been said, there is a prominent negative opinion about <https://assignbuster.com/learning-a-second-language-essay-samples/>

the process. This could be caused by the pride that countries take in their languages and how their languages are representative of their traditions. Even then, L1 attrition should be regarded as a completely normal process, as it does not hinder, in any way, the ability of a person to communicate in their L1. Further studies of L1 attrition could help dispel the negative views that surround the subject, as it is an area not yet developed completely. For example, a better definition of the word ‘loss’, used to describe the process, might help dispel the stigma behind attrition. The ‘loss’ of the native language does not give any indication as to how permanent or irreversible it is. It also does not provide any clue as to how deeply it affects the L1 and how it might impact the lives of those who go through this process.

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