



**Where Did It Go? The Hide and
Seek of Language Attrition and
the Freeze Tag of Language
Stagnation**

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Abstract

Since the first language (L1) is often considered the foundation of the second language (L2), a concern for teachers is what happens when L1 stagnation occurs—or even more seriously, L1 loss—two fairly common situations in Michigan schools. In order to address this issue, three main areas are explored in this article. First, an overview of current theoretical explanations from both linguistic and psychological perspectives is presented. This background is then followed by a description of the typical processes of language loss, including patterns of structural disintegration across domains of language, along with strategies learners use to manage communication during this time. Finally, the emotional toll on learners—and impact on their schooling—is discussed, including issues of language as a cultural commodity and identity issues in preschoolers, high school students, and adults reflecting back to school experiences.

Introduction

It is not uncommon for many children, exposed to a second language (L2) during the preschool and elementary years, to experience stagnation of their first language (L1), often followed by an actual loss of the L1 as the L2 continues to be emphasized (Yukawa, 1997). Stagnation of the L1 can be thought of as the childhood game of “freeze tag.” In this situation, the L1 stops developing due to the introduction of another language, and, in essence, “freezes” in form, even though the child continues to develop in the L2 and other areas. Over time, with continued and expanding use of the L2, the L1 can actually be lost. There is some debate, though, on whether the L1 actually ceases to exist or whether it simply cannot be accessed, therefore, being “hidden”. If the latter view is true, then the analogy of the childhood game of “hide and seek” would apply, as the student sifts

through language knowledge seeking lexical items and morpho-syntactic structures that appear to be hidden.

This “freeze tag” or “hide and seek” situation is likely to occur more frequently in situations where the first language has little support, such as in transitional bilingual programs where instruction in the L1 is gradually phased out; classrooms where instruction is in the L2 with pull-out services only in the L2; and in the special situation of internationally adopted children who, in a period of 24-48 hours, typically lose all contact with their L1, both language and culture (Gindis, 2008; Montrul, 2008; Pearson, 1997). Since the L1 is considered to be foundational to other language learning, L1 stagnation (“freeze tag”) and, even more so, L1 attrition (whether true loss or “hide and seek”) are important processes for teachers to understand.

Theories of Language Attrition: An Overview

The subfield of language attrition, situated within second language acquisition (SLA) research, is relatively new, having officially begun in 1980 (Hansen, 2001). The central question of current debate revolves around whether there is actual loss of language *knowledge* (representation in the mind), or whether there is simply loss of *access* to that knowledge (de Bot, 2004; Ecke, 2004), or, more recently, whether the language was ever there to begin with, a concept termed *incomplete development* (Montrul, 2008). Bardovi-Harlig and Stringer (2010) discuss six prominent linguistic hypotheses of L1 attrition, and it is to these that this paper now turns¹.

First, the *regression hypothesis* holds that the language that is learned first will be the last language lost (Jakobson, 1941; Keijzer, 2004). Though a long-standing perspective, there is little direct evidence for this view. Further, there is no accounting for differences in acquisition or context, such as the situation where the L1 remains dominant or where few situations exist for use of the L2. Better addressing these contexts is the *threshold hypothesis*. Under this view, the language that is learned best is most resistant to loss, that is, least vulnerable to loss (see Berko-Gleason, 1982; Paradis, 2007). Conversely, the language that is not dominant is more likely to be lost. Several problems also arise with this view, the first being that it may not hold equally for all language domains. Additionally, there is the issue of schooling, i.e., literacy acquisition, which has been shown to strengthen the language used for learning, as well as the issue of frequency of reinforcement, also known to strengthen structural

knowledge. Both of these confounds will need to be addressed in a theory with explanatory adequacy.

Another hypothesis is that of *interference*. Under this view, increased negative interference (transfer) increases language loss (Sharwood Smith, 1989). Though likely to play a role in language attrition, interference cannot explain all that transpires. The *simplification hypothesis* has also been proposed, where limited contexts of use increase the potential for loss of the language (Anderson, 1982, 1983). Though not actually a theory, it does have relevance in many educational settings in Michigan and is likely to play a role in a future, more integrated theory of language loss. The *markedness hypothesis* is also being explored, not only regarding language acquisition, but also in language loss (Sharwood Smith & Van Buren, 1991). Originally under Chomsky's Universal Grammar as part of parameter setting, those that hold to this view hypothesize that marked values will revert to unmarked settings (the default setting). However, others that also hold to this view hypothesize the reverse, that marked values will be stronger and, therefore, less likely to undergo attrition.

Finally, the *dormant language hypothesis* raises the question of whether there is complete loss of representations in the mind or whether the loss is constrained to that of access to those representations. As noted above, this view is the focus of much debate, and one that brings psycholinguistics closer to neurolinguistics with the advent of functional MRI (fMRI) studies which track activation patterns in the brain (Kopke, 2004). Studies with adult adoptees are also shedding light in ways not previously explored (for an overview, see Hyltenstam, Bylund, Abrahamsson, & Park, 2009). For example, in adults adopted as young children who have no conscious recollection of their L1, age regression hypnosis has shown that the ability to communicate in the L1 is possible. However, no analyses of individual language domains have been conducted and problems with methodology also need to be addressed before it can be determined just what "communication" means. Other studies have looked at the ability to re-learn the first language, again in adult adoptees and controls. If the L1 were completely lost, the prediction would be that both groups would function in a similar manner; however, if there were only loss of access, it would be predicted that the adult adoptees would re-learn their L1 more quickly and easily than the controls. Results, to date, have been variable with problems, once again, in methodology. Recently, Montrul (2008) has added another question to this debate: is

there actually loss of knowledge or loss of access, *or was there incomplete acquisition to begin with?* That is, if one finds indications of possible loss, how does one know anything was truly lost if the state of knowledge of the L1 at the time of introduction to the L2 is unknown? Questions such of these are ripe for future research and answers will need to be determined before a stronger theory can be proposed.

Turning now to psychological hypotheses of language attrition, the “Freudian notion of intentional forgetting” is at issue (de Bot, 2004; Ecke, 2004). It is interesting to note here that linguists and psychologists are actually exploring the same questions from different fronts, as evidenced by this quote by Ecke (2004) and use of terms such as *acquisition*, *representation*, and *access*:

Forgetting may result from failure in one of three basic components of remembering: *encoding* (the capture and acquisition of novel information), *storage* (the integration and permanent representation of information) and *retrieval* (the access to information when it is needed by the speaker).

(p. 323)

According to Ecke (2004), causes of forgetting can include repression and suppression, interference, and decay. *Repression and suppression* involve the avoidance of past traumatic experiences or past identities. This can be seen in refugees who have fled war-torn countries and experienced persecution. It is also a situation encountered by internationally adopted children who seek to put the past behind them and assume a new identity with a new family. This assumption of a new identity, with suppression of the old one, can be experienced by all immigrants due to the push for assimilation, the educational setting focused on the L2, and the covert messages sent in many forms by the macro-culture.

Interference is another cause of forgetting, due in this sense to competing information (Paradis, 1997). That is, the L2, which is more highly activated in the current input, inhibits retrieval of the L1. This would correspond to negative transfer and interference under the linguistic hypotheses, though in a very general sense. *Decay* is also a hypothesis of forgetting. Under this perspective, what is not used would gradually fade from memory, being, in essence, the “use it or lose it” view.

Most recently, psychologists are looking at *interaction and dynamic systems* (Ecke, 2004). This line of inquiry hypothesizes that a multitude of variables interact with each other and are therefore continually changing. This view, like that of the dormant language hypothesis, may hold the greatest promise in the years to come as integrated theories are built to encompass all that continues to be learned about how language is both learned and lost under a wide range of different conditions.

Typical Patterns of Language Loss

Structural Disintegration

Those who work with learners whose L1 appears to be at risk often want to know what happens to learners' language when it stagnates or undergoes loss. Overall, there is a simplification and reduction across language domain systems (Seliger, 1989, 1991; Vago, 1991)² as the structure of the language slowly disintegrates. With the lexicon, there is a more or less gradual reduction to a core vocabulary (Viberg, 1993). First, multiple lexical items collapse into a single item. For example, a learner who is fascinated by dogs and can name each breed—*Lab, poodle, beagle*—starts calling all breeds by the generic term *dog*. The system then collapses further; for example, the learner now calls all four-legged creatures—dogs, cats, cows, and pigs—by the word *dog*. Following this, even larger categories of words are lost, resulting in many concrete nouns now being referred to as *thing*. For example, the learner might say *I want that thing* or *That thing hit me*.

In the case of a language's morphology, there is a collapse of both the case and inflectional systems as well as loss of function words (Kaufman & Aronoff, 1991). In highly inflected languages with a rich case system, only the subject and object case will be retained. In less inflected languages, for example English which only has remnants of case marking as evidenced in its pronoun system, only object case will remain. Regarding verbal morphology, here also the inflectional system collapses with inflectional endings that mark only grammatical function eroding first (e.g., third person subject verb agreement) followed by endings that encode meaning (e.g., progressive tense and past tense). Eventually, only the base form (stem) of the verb is retained. Function words also drop out of use due to their decreased semantic weight. For example, modal auxiliaries such as *can, could, and should* are no longer used; articles (*a/an*) and determiners (*the*) will be absent; and prepositions such as *in, on, and of* will no longer be in evidence. Recently, Guiberson et al. (2006) found that the collapse of the

morphological system was the key feature of loss in preschool-aged children of Mexican immigrants. In learners aged three to twelve years, this type of loss is especially important to note as it mimics features of specific language impairment, a language learning disorder that affects approximately seven percent of the population (Leonard, 1998). This, then, results in a situation that confounds the difference vs. disorder distinction that is of concern in the fields of second language acquisition and TESOL. (See Pearson (2004, 2008a, 2008b, 2009) for further information on this issue, as well as the classic by Schiff-Myers (1992) on assessment issues.)

Lastly, the syntactic system also undergoes reduction, with a more variable word order reducing to a more basic structure (Tsimplici, Sorace, Heycock, & Filiaci, 2004). Historically, this is what has occurred in English. One thousand years ago, English had a rich case and inflectional system and a more variable word order than it does currently. Over time, though, there was a loss of the case marking system. Without case markers encoding who was doing what to whom, the need for a more rigid word order was needed. Currently, the basic underlying word order in English is subject-verb-object (SVO) which provides the listener with the cues needed to determine who is the agent and who is the recipient of the action. Language attrition in an individual follows a similar path. As the morphological system collapses, the need for a basic, invariant word order results. Additionally, complex sentences reduce to compound sentences. For example, a sentence with a subordinate clause such as *The big Lab who is yellow barked at the little girl* would reduce in complexity to two independent sentences joined by a conjunction, such as *The big Lab is yellow and he barked at the little girl*. Taking all of the above changes together, with enough time, the final result might be: *Dog yellow. Bark girl*. At this point, only basic lexical items remain in use, inflections are absent, and the syntax has been reduced to the telegraphic stage.

Communication Strategies

The next question to address is how learners compensate in communication when experiencing a language system that is collapsing. Turian and Altenberg (1991), in a classic case study of a Russian-English bilingual child, discuss three types of strategies used when coping with language loss. These are interlingual, intralingual, and discourse strategies. Interlingual coping mechanisms involve strategies between the L1 and L2, including code-switching, lexical borrowing, and transfer of word order. In this instance, contrary to

current thought, code-switching would be a sign of lack of proficiency in a language.

While interlingual strategies involve the manipulation of both languages, intralingual strategies involve only the language being lost. Three such strategies include analogical leveling, lexical innovation, and approximation. Analogical leveling occurs when a regular form is used for an irregular form, e.g., *goed* instead of *went*. Here, the regular past tense marker *-ed* is used with the irregular verb *go*. Lexical innovation involves the invention of a new word for a known concept. Though a creative use of language, with the other indications discussed above, it is a sign of a language in flux. Approximation involves using a similar lexical item that shares several features for a word that cannot be recalled, e.g., *look* instead of *see*. Both involve the visual sense, yet semantically there is a difference, namely, intentionality.

Finally, discourse strategies involve interaction with interlocutors. These can include overt comments, such as *I forgot*; appeals for assistance, e.g., *How do you say... ?*; and even deliberate wrong answers in order to elicit the correct word or form from the listener. There is also the strategy of avoidance where the speaker simply does not respond to the interlocutor or changes the topic to one in which there is more control of the vocabulary. Any or all of these strategies may be occurring at any one time.

The Emotional and Educational Cost of L1 Loss

Moving to the emotional and educational cost of L1 stagnation and attrition, what do teachers need to be thinking about regarding these “recess games” of “freeze tag” and “hide-and-peek” that play out—often with negative consequences—*inside* the classroom? The first area to explore is that of identity issues. Falstich Orellana (1994) has reported on the “superhuman forces” (p. 9) that can exert an effect on identity in children as young as preschoolers. In her study, three young children were evaluated on language use and dominance in both home and school environments across two time periods: age 2;10- 3;6 years and three years later at age 5;10-6;6. During the first phase, all the children were Spanish dominant in both home and school environments. Three years later, the children no longer used Spanish spontaneously, were reluctant to use it even when encouraged, and were limited in their expression across all contexts and interlocutors. According to Falstich Orellana, the superheroes had won, as evidenced by a statement from Carlos, one of the children in the study

who said “he would not speak Spanish when he grew up because Superman did not speak Spanish, nor did Peter Pan” (p. 5). When such young children make such statements, one has to question the degree of covert pressure from the macro-culture on young children. Though this study was reported over fifteen years ago, teachers today must ask themselves whether significant progress has been made in societal attitudes towards Spanish in the U.S. or whether the situation has remained essentially unchanged³. If major superheroes and other characters with which young children identify remain monolingual English-speaking, there is little support for the L1. It is only when Peter Pan, Superman, and other superheroes become fluent Spanish-English bilinguals that the macro-culture will begin to send the message to young impressionable minds that bilingualism is valued.

Teenagers are also in the throes of identity formation, and it is this group that Hakuta and D’Andrea (1992) have reported on in their classic large scale study of the maintenance and loss of Spanish in teens of Mexican descent. There were three goals to this study: 1) to determine proficiency levels of both Spanish and English (by both testing and self-report); 2) to ascertain, across settings, the choice of which language to use (self-report); and 3) to explore attitudes towards both languages. Hakuta and D’Andrea found that maintenance of Spanish skills was dependent upon the extent to which adults in the home used the language. Outside of the home, however, students quickly assimilated to English in the schools. This was due, in part, to the view that the L1 should be lost so that the L2 had an opportunity to become stronger. In reality, though, those that held this view were actually *less* proficient in the L2. It was also found that as ties to the Mexican homeland become more distant in families who had been in the U.S. for a longer period of time, and as stronger ties to the U.S. developed especially in the children and teens, identity issues took precedence with the result that the L1 began to undergo attrition. This loss of the L1, though, was thought to be more of retrieval (the loss of access issue discussed at the beginning of this article) rather than in loss of mental representation. Since it has been established that the L1 is the foundation for the L2 and that strong bilingual skills are associated with a cognitive advantage (Genesee, Paradis, & Crago, 2004), one must ask why stronger measures are not in place in the schools to encourage bilingual development. Further, one must ask why the macro-culture does not support bilingual identity formation.

These identity issues that are in evidence beginning in the preschool years and continuing through the teenage years often do not resolve in adulthood. Kouritzin (1999), in a moving account of adults till grappling with long-held feelings of alienation, isolation, and struggle, explores the consequences of not fitting in, of identities in limbo. In considering the significance of these feelings, the question that arises is: what are the long-term repercussions of learners not building a solid identity with their home culture and first language—to the individual, and to society?

Beyond identity issues, language must be looked at as a cultural commodity. According to Kouritzin (1999), language can be seen as a symbolic system (phonology, morphology, syntax, etc.), *or* it can be seen as a cultural commodity that encompasses both language vitality and survival, a rich variety of uses, a wide range of speakers, and the “human factor” (p. 19) which involves both identity and culture. The issues that all educators must now face—especially those involved with ESL learners—and the questions that must be asked include:

- Has the focus been too narrowly on language as a symbolic system?
- If the L1 had an actual currency, what would it be?
- What value does multilingualism have in a global economy?
- What value does multiculturalism have in a global world?
- What impact does the push for English (with the all-too-frequent concurrent loss of the L1) have on school achievement in learners?
- What is currently known regarding the L1 as the foundation for the L2, not just with language acquisition, but also with literacy development?
- What could be done in each and every school to better support additive bilingualism?
- What impact does the push for assimilation (and loss of the L1 culture) have on learners both with school achievement and with emotional development?⁴
- What does the push towards monolingualism (in this case, English) do to a learner who lives in a bilingual world (a micro-culture within the larger macro-culture)?

Wong Fillmore (1991, as cited in Genesee et al., 2004) eloquently captures the loss experienced by families in flux when she states:

What is lost when children and parents cannot communicate easily with one another?

What is lost is no less than the means by which parents socialize their children: When parents are unable to talk to their children, they cannot easily convey to them their values, beliefs, understandings, or wisdom about how to cope with their experiences. They cannot teach them about the meaning of work, or about personal responsibility, or what it means to be a moral or ethical person in a world with too many choices and too few guideposts to follow...Talk is a crucial link between parents and children: It is how parents impart their cultures to their children and enable them to become the kind of men and women they want them to be. When parents lose the means for socializing and influencing their children, rifts develop and families lose the intimacy that comes from shared beliefs and understandings. (p. 343)

This, then, raises the question of how can the L1 be increased in value so that it has a higher currency/commodity rating, and by so doing, decrease the chances of stagnation or attrition that lead to the heartache of which Wong Fillmore passionately speaks?

In closing, as members of the global community, several final questions must be asked: what is the human toll and economic loss resulting from language stagnation and loss? And as ESL specialists, what, more specifically, can teachers do? Wong Fillmore (2000) begins this discussion by offering some suggestions for educators; what might the MITESOL community, and each member individually, add – and then implement?

¹For a fuller review of language attrition theories, see de Bot & Weltens (1995); Kopke, Schmid, Keijzer, & Dostert (2007); and Hyltenstam, Bylund, Abrahamsson, & Park, 2009.

²For an interesting article documenting language loss in three longitudinal case studies, see Kuhberg, 1992.

³In a current, informal survey of university faculty who teach children's literature, including the impact of the media on literacy, no superhero could be identified that was bilingual. Of additional concern, no female superheroes

could be identified who continued in strength on their own, rather than in a supporting role, other than possibly Buffy the Vampire Slayer for older audiences.

⁴For discussions on the importance of supporting the L1 in the academic setting, as well as suggestions for teachers, see Egbert and Ernst-Slavit (2010, specifically Chapter 2) and Samway and McKeon (2007, especially Chapter 3).

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