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15

The Effects of Environment Change on Third Languages

The Case of Returnees

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15.1 Introduction

This chapter discusses the development of the language competence of a particular population of bilingual speakers, namely returnee bilingual speakers. Returnees are multilinguals who live for a certain period in a migration setting during childhood, being exposed to their family language(s), the majority language (an early second language/L2), and potentially a third language (L3), for instance, through schooling. After spending their childhood (and in some cases also their adolescence) in the migration environment, they move back to their families' country of origin, where the family language is now the majority language and exposure to the L2 (and potentially also to the L3) may decrease significantly.

To date, this population has been studied from two perspectives: (1) with a focus on the linguistic changes that affect the previous majority language by becoming a minority language in the new environment, which may lead to language attrition; and (2) with a focus on the development of the family language after the speakers' immersion in the families' country of origin, which may lead to possible outcomes of heritage language reversal (for a discussion of both scenarios, see Flores, 2019). A third perspective, which is pursued in the present chapter, targets both the development and change of an L3 in this population, a research field that is largely unexplored and thus open to investigation.

This chapter discusses three scenarios in which an environmental shift may affect the status of an L3 and raises theoretical questions that follow from these scenarios. The first scenario involves L3 attrition, a case in which the L3 acquired in a foreign setting undergoes attrition due to

reduction in input after returning to the homeland. We discuss what the trajectories of L3 attrition may look like, and what variables may influence or offset the effects of L3 attrition in light of the evidence we have gathered from L2 attrition literature. The second scenario includes theoretical discussions of whether the relearning of an attrited L2 can be considered L3 acquisition. Finally, the third scenario explores the source of crosslinguistic influence (CLI) on the L3 and how studying the returnee population can open an exciting opportunity to tease apart internal and external factors that are otherwise confounded in the traditional bilingual population. Since the literature on all three scenarios is scarce, we will combine the interpretation of the limited existing findings with theoretical considerations and propose research hypotheses that may be tested in future research.

15.2 Who Are Returnees?

Returnees are multi/bilinguals of immigrant families who spend a significant portion of their formative developmental years (school age) in a societal majority language context, a typical heritage language (HL) scenario, yet return to their families' native environment, often as older children or young adolescents (or even young adults). Returnees can either be simultaneous or sequential bilinguals, whereby some children acquire the two languages simultaneously from birth, while others acquire the L2 after they have started to develop their L1.

Simultaneous (2L1) bilingual returnees are usually born in the host country and are exposed to their heritage language at home and the majority language in the wider society. While residing in the host country, they are indeed also labeled as heritage speakers (HSs), precisely because their native language is primarily spoken within the family unit. Consequently, what makes them "returnees" is the fact that they *return* to their parents' country of origin, where the language that the parents used to speak at home in the host country becomes the majority language after return. Let's take Flores's (2010, 2012, 2015, 2020) group of returnees for example. Most returnees in her study were born in Germany/Switzerland in a Portuguese household and thus spoke Portuguese at home and German outside of the home. These children then moved back to Portugal at different points in their lives, ranging from ages seven to fourteen. As reported by Flores (2010), the returnee children's opportunities to engage in German decreases dramatically, and some even completely lost contact with German upon their return to Portugal. As a consequence, Flores (2010) reveals a high level of morphosyntactic attrition in children who moved back to Portugal before puberty, and Flores (2015) even shows an extreme case where a child was no longer able to

produce complete utterances in German after eighteen months in Portugal.

Simultaneous bilingual returnee children, as in the case of Flores's studies, are certainly not rare in the current context of global mobility; in 2017 alone, 4.4 million immigrants moved to or within Europe (Eurostat, 2019). In addition to the over 2 million migrants from non-EU member states who have the right to maintain their native languages and culture, there are around 1 million yearly who return to their native country or that of their parents (Eurostat, 2019). Although a large number of returnees exist within the European context, it is extremely difficult to systematically track these children over time, as immigration in the EU is largely dispersed and there is a lack of organizations that oversee the network of returnee families and communities. Therefore, past studies on simultaneous bilingual returnees are usually qualitative in nature and involve a small number of participants.

Sequential bilingual returnees, on the other hand, are usually born in their parents' country of origin and acquire their native language before moving to a foreign (host) country. Once relocating to the foreign environment, they acquire the societal majority language as their (early) L2. Recall that in the case of simultaneous bilingual returnees, the language that they speak at home is a HL – they have always been exposed to a situation in which their home language is juxtaposed to the majority language. It is perhaps both a theoretical and an empirical question as to whether sequential bilingual children, who acquired their native language in the home country, are considered heritage speakers when they move to a foreign environment. According to Rothman (2009: 156), “a language qualifies as a HL if it is a language spoken at home or otherwise readily available to young children, and crucially this language is not a dominant language of the larger (national) society.” If we were to adopt this definition, then sequential bilinguals may also be regarded as heritage speakers once they move to a language context in which the home language differs from the societal majority language. However, it is important to note that the language profile and experience of such sequential bilinguals may differ from the simultaneous bilingual heritage speakers, depending on the age of migration. Where migration occurs at school age, the former group would have had more exposure, different quality of input, and higher levels of education and literacy practices in their native HL.

Let us illustrate a typical scenario of sequential bilingual returnees by using examples from Kubota and colleagues' work (Kubota, 2019; Kubota et al., 2020a, 2020b, 2020c). The Japanese returnee children in her studies were all born in Japan in a Japanese household. In fact, in Japan the term “returnee” (*kikokushijo*) is recognized widely among the general public – a testament to the increasing number of returnee children in recent years (more than 12,527 returnees in 2016) due to globalization and expansions of Japanese industries abroad. The children in Kubota and colleagues'

studies moved to an English-dominant environment at various ages (ages one to nine), mostly due to their parent(s)' job relocation. According to the Japan Institute for Labour Policy and Training (2017), nearly 30 percent of the employees in Japan have experienced relocation both within and outside of Japan. Of those who relocated abroad, 40.7 percent were transferred to Asian countries, followed by 22.6 percent to North America, and 20.2 percent to Europe. In Kubota and colleagues' studies, half of the participants came from countries where English is not the official language (e.g., Netherlands, France, Poland, Singapore, Thailand, Israel, Malaysia, Vietnam, Indonesia, and China) and the other half from English-speaking countries (e.g., the United States, United Kingdom, and Canada). On average, Japanese employees spend 3.3 years abroad, which aligns with the participants' average length of residence in the foreign environment of 4.1 years.

The crucial difference between the simultaneous bilingual returnees in Flores (2010, 2012, 2012, 2015, 2020) and the sequential bilingual returnees in Kubota and colleagues (Kubota, 2019; Kubota et al., 2020a, 2020b, 2020c) is the fact that the latter returnee families are fully aware of the fact – even at the time that they leave the home country – that they will eventually return to their home country after living abroad for a certain period of time. This is one of the main reasons why Japanese families choose to enrol their children in weekend/Saturday Japanese schools in the host country, in order to help them maintain their native language and prepare them to enter Japanese schools upon their return to Japan. In the case of simultaneous bilingual families, the return often happens for economic, personal, or health reasons, without being effectively planned for from the beginning, even if it is a lifetime desire of many migrant families to return (Flores & Snape, 2021).

A further variable that distinguishes the different returnee populations studied so far is the language of the host country. Many studies report on bilingual returnee children who return from English-dominant environments (Berman & Olshtain, 1983; Yoshitomi, 1999; Taura, 2008; Tomiyama, 2008; Snape et al., 2014; Kubota et al., 2020a) and thus speak English as their L2, while bilingual returnees in the European context often speak other European languages (such as German or French) as their 2L1/L2. Given that English is a high-prestige language and is taught as one of the main subjects in schools worldwide, it is not surprising that the Japanese families make greater effort and are highly motivated in maintaining their children's English ability. For instance, all returnee families in Kubota and colleagues' studies who lived abroad where English is not the official language chose to enrol their children in international schools where English is the medium of instruction. Therefore, none of the parents reported that their children could converse in the societal language (e.g., Dutch, French, Mandarin Chinese, Thai), considered here to be the L3, although these children were certainly exposed

to the language (and some even had lessons at school) while living abroad. On the contrary, only a residual number of the returnee participants observed by Flores (2010, 2012) were enrolled in German classes after moving to Portugal. Such contextual differences may contribute to the various degree of L2 attrition found across the two types of returnees; while Flores (2010, 2012, 2015, 2020) found clear indications of morpho-syntactic attrition in her Portuguese–German returnees, Snape and colleagues (2014, 2012), Yoshitomi (1999), and Kubota and colleagues (2020c) found weak to no signs of morphosyntactic attrition in Japanese–English returnees. This goes to show that returnees are certainly not a homogenous group of bilinguals (although they are a subset of bilinguals), and significant variability at the individual and group levels exists.

The rich language experience that this population offers can help us shed light on both theoretical and empirical questions pertaining to bi/multilingualism. For instance, detachment from a 2L1 or L2-dominant language environment creates a unique setting in which one can test whether a (native) language involves the acquisition of linguistic knowledge, followed by a period of stabilization. This idea originates from memory consolidation in neurocognition, which hypothesizes that memory is consolidated through recurrence and recency of neuronal activity (Yoshitomi, 1992; Steinkrauss & Schmid, 2016). Disuse of a language before its consolidation causes neural connections responsible for storing linguistic knowledge to weaken and thus results in language attrition. As already indicated, there is indeed a great divergence in terms of how long returnees stay in the host country and are exposed to the majority language before they are detached from that environment and lose contact with the (former) majority language. In other words, the stabilization period of the majority language differs from individual to individual and teasing apart this factor can help us understand whether a language needs to be stabilized in order to be relatively immune to effects of disuse, and if so, how long this consolidation period may be. Based on the analysis of her data, Flores (2020) suggests that at least nine years of exposure to the native language may be necessary to consolidate morphosyntactic knowledge such as nominal inflection (in German). The returnees who lived fewer than nine years in the host country revealed significantly higher degrees of attrition compared to the speakers with a length of residence between ten and thirteen years, independently of the length of stay back in Portugal. More research involving a greater number of returnee participants and examining different aspects of the language is necessary to conduct a proper individual-level analysis.

Moreover, examining the development of returnees' native HL from the point of re-exposure to the native environment opens up new directions of research in heritage language bilingualism (HLB). While HL outcomes sit on an individual-level continuum of divergence, precisely *what factors* predict and characterize these developmental outcomes are unknown

(Montrul, 2015; Kupisch & Rothman, 2018; Polinsky, 2018). All current hypotheses suggest that divergences are a by-product of some mitigating factors related to the opportunity to acquire language during the developmental process of a HL bilingual. Findings in this field, however, are largely limited to contexts in which children grow up and remain in an environment where the native HL is a minority language. Environment transitions – as in the case of returnees – create opportunities to tease apart the factors that are hypothesized to account for HLB divergence, such as quality and quantity of input and exposure to literacy. If these are reliable factors that predict HL development, then returnee children provide an interesting test-case for examining whether sudden change in increased input and access to literacy through schooling may influence their HL development/competence. Although effects of re-exposure to the HL (i.e., heritage language reversal) have been studied in the returnee literature (Daller & Yıldız, 1995; Daller et al., 2011; Flores & Rato, 2016; Treffers-Daller et al., 2016), this area of research is even more scarce than that which is dedicated to L2/2L1 attrition (Flores & Snape, 2021). Thus, more work on this population is essential to address these important questions that transcend boundaries between several disciplines such as theoretical linguistics, psycholinguistics, and cognitive science.

A further contribution of research on bilingual returnees lays in its potential to inform questions related to L3 acquisition. These potential contributions will be discussed in the next sections, based on various scenarios of potential L3 acquisition and loss after return.

15.3 Scenarios of Potential L3 Acquisition and Loss in Returnees

15.3.1 Scenario 1: Return from an L3 Environment (in Childhood) and L3 Attrition

The first scenario where the return to a bilingual speaker's homeland may affect an L3 emerges in the case of bilingual speakers who lived in an L3 environment and, at a certain moment of their life, moved (back) to the L1 or the L2 environment. This is the case of bilingual couples who move to or meet in a country where neither of their family languages is spoken. Their children grow up with both their parents' family languages at home and start to acquire the dominant environmental language as an L3, often in the school context. They lose daily contact with this third language if the family moves back to (one of) the home country(ies).¹ For instance, this

¹ It is one home country if the bilingual family is originally from a bilingual country (e.g., the Basque country), where the child has contact with two languages. Another scenario is that the father is from one country and the mother from another and the family moves back to one of them.

situation is frequently experienced by families with academic jobs who get a position at an international research center or university.

If studies on returnees from L2 environments are rare, studying returnees moving back from L3 contexts is even more scarce, or almost nonexistent. We report the results from two exploratory case studies that analyze language development in three children after moving back from an L3 context to one of their native language environments. We will then discuss the main research questions related to L3 development that arise from this type of study.

One of the first studies looking at the development of an L3 in returnee children is Cohen's (1989) investigation of the performance of his own two English-Hebrew bilingual children after a one-year stay in Brazil, where the children acquired Portuguese as their L3 and were able to converse fluently in that language. They learned Portuguese mainly through social interactions outside their private Israeli school, for instance through a twenty-one-day excursion with monolingual Brazilians almost six months after living in São Paulo. The children moved (back) to Israel at the ages of almost ten and fourteen and lost contact with Portuguese. Data collection started one month after leaving Brazil and was repeated three and nine months later. Cohen investigated attrition effects in the productive L3 lexicon of the returnees based on a storytelling task (using the well-known *Frog, Where Are You?* booklet). The results show a decrease in the total amount of lexical items, but also its diversity to retell the story during the nine-month testing period in which the participants lacked contact with Portuguese. Furthermore, greater attrition effects were observed in the younger than in the older sibling, but attrition appeared to be restricted to productive skills since both children recognized most of the words they did not use, even eleven months after the onset of noncontact. The author argues that a prolonged period of lack of contact with the target L3 leads to forgetting processes, even though not to a complete loss of lexicon. In addition, L3 attrition is modulated by age of loss of input, which in turn is linked to degree of literacy.

The second study, by Yildiz and Koyuncuoglu (2017), investigates attrition effects in the L3 Turkish of an L1 English-L2 French bilingual child from Canada who lived for eleven months in Turkey when she was about six years old. She acquired a high level of fluency in oral Turkish by attending a Turkish-speaking nursery school. After moving back to Canada, she completely lost contact with her L3. Data collection occurred via Skype once a month during eight months through free conversation. Data collection started one month after the child returned to Canada. The study aimed at identifying attrition in Turkish morphology and vocabulary by analyzing code-switching utterances. According to the authors, the "findings have revealed the subtle yet significant changes" in the child's Turkish (Yildiz & Koyuncuoglu, 2017: 298), particularly with respect to structurally assigned morphology. For instance, the child started to use

analytical structures instead of bound morphemes in the later stages of data collection. The authors acknowledge that a longer period of observation would have been useful to better understand the attrition patterns in Turkish.

One crucial question that arises from these kinds of studies, which investigate the development of an L3 in bilingual returnees who lived for a certain period in the L3 environment, aims at understanding if processes of L3 attrition in bilingual child returnees follow the same trajectories as in L2 attrition. To shed light on this research inquiry we need to compare the findings from L3 studies with the studies on L2 attrition in returnees, even though both types of research are scarce. Thus, much more studies are needed to gain a more coherent picture of this type of bilingual language development.

Most L2 attrition studies involving child returnees are case studies with a reduced number of participants (see Flores, 2019 for an overview; an exception are Kubota's studies on Japanese returnees). Similarly to the two L3 attrition studies, several L2 attrition studies on child returnees present longitudinal analyses of the attrition trajectory in the L2 from the moment of return until some months (and no longer than two or three years) later (Kuhberg, 1992; Reetz-Kurashige, 1999; Tomiyama, 1999, 2000; Yoshitomi, 1999; Snape et al., 2014; Flores, 2015). They focus on lexical knowledge, morphosyntax, semantics or, more recently, processing costs and cognitive function (Kubota, 2019; Kubota et al., 2020a, 2020b, 2020c). Essentially, the degree of L2 attrition observed in these studies varies significantly, which is due to differences in the age of return, the degree of contact with the L2 after moving back, the linguistic domain under analysis, or even the method used. Still, most studies report a decline of proficiency that starts some months after the change of dominant environment, which is more significant in younger returnees.

Overall, the attrition trajectories reported for the L2 seem to be similar to the processes observed in L3 attrition. After some months lacking regular contact with the target language, attrition effects start in the productive lexicon in the form of more frequent instances of code-switching, and move selectively to other linguistic domains. For instance, Isabella, the participant observed by Yildiz and Koyuncuoglu (2017), started to produce deviant system morphemes in her L3 Turkish within seven months of incubation (i.e., lacking context with the L3). The same is observed in the case of Ana, the participant analyzed by Flores (2015), who started to show attrition effects in her L2 German five months after her return to Portugal. The degree of attrition will depend in both cases, L2 or L3 returnees, on the same factors: the level of proficiency attained in the target language before the moment of return and the amount of exposure to this language after return, in addition to individual factors which may further impact on the attrition process (e.g., motivation to maintain contact with the target language after moving away from its environment). An

interesting question, open to investigation, is whether a potential period of stabilization of linguistic knowledge, in the sense of Flores (2010), would apply in the same fashion to an L3. In other words, does an early acquired L3 need the same amount of input and time as an L2 to be acquired and consolidated in the speaker's mind? Or does the fact that it is an L3 play a role in early language consolidation, precisely because it is in competition with two other languages? From what we already know about multilingual language acquisition in childhood, we would predict that this stabilization period would be similar in L2 and L3 acquisition as long as the language input conditions are similar.

Despite the logical assumption that L2 and L3 stabilization periods should pattern similarly, the fact that bilingual speakers who return from an L3 environment have two childhood languages instead of only one is indeed a crucial variable that distinguishes L2 from L3 returnees. The central question that arises from this particular language scenario is whether the presence of two native languages will accelerate the attrition process due to the competition of two languages in use against the one non-used language. Several studies on 2L1/L2 returnees have shown strong effects of crosslinguistic influence in various language domains after the returnee moved back to the country of origin. The HL, which now becomes the dominant language, starts to influence the attrited L2 (or 2L1) in several domains. Flores (2012), for instance, revealed such effects of crosslinguistic influence from Portuguese into the returnees' eroded German in the domain of object expression. After losing regular exposure to German, the group of Portuguese–German returnees that she investigated started to omit object pronouns in German in contexts that do not allow for object omission. This process is interpreted as crosslinguistic influence from Portuguese, which is a null object language. A relevant question that arises from these observations is whether in L3 returnees the processes of crosslinguistic influence would be even more pronounced, since the speaker has two childhood languages competing with the attrited L3. We will explore this question from a theoretical perspective in Section 15.3.3.

15.3.2 Scenario 2: Reacquiring a Lost Language – A Case of Reactivation or L3 Acquisition?

The second scenario involves situations of return or of double return with a focus on the language that starts to be the dominant language after the change of environment. On the one hand, this is the case of the native language that is acquired as the HL while the bilingual individual lives in the migration context. As soon as s/he moves (back) to the country of origin, this HL becomes the dominant environmental language (for a deeper discussion of these cases, see Flores, 2019). On the other hand, in the current global mobile society, many families move back to the country of migration after (failed) attempts to return to the homeland. In

these cases of double return, the returnee child experiences attrition of the L2 after moving to the L1 context, followed by re-immersion in the L2 context after going back to the context of migration (a situation discussed by Flores [2020]).

What is the relationship of these scenarios with L3 development? The crucial fact in these scenarios is that a language, acquired through naturalistic exposure in childhood, has gone through a period of reduced use or complete deprivation at a certain moment of the bilingual speaker's life. When the speaker is (re-)immersed in the context where this language is the majority language, exposure is regained and re-acquisition sets in. This raises a central question, namely: is the reacquisition of a previously acquired and lost L1 or L2 an instance of reactivation of a latent language, or is it relearning? In the latter case, we may argue that the language is relearned in the same fashion as it would be as an L3.

This hypothesis has been discussed by Polinsky (2015) with a slightly different population, so called "heritage-speakers-turned-learners" (163), heritage speakers who lose daily contact with their HL due to extensive exposure to the environmental language and decide to formally re-learn the HL as adults in a classroom setting. Polinsky asks whether heritage speakers make better L3 learners of their latent HL than speakers who learn this same language as a late L2. If they show considerable advantages, then we may conclude that a latent, non-used native language is never lost and, in cases of renewed contact, this language is reactivated, not newly learned as an L3. If, on the other hand, this population evidences performance similar to that of "traditional" late L2 learners, we may conclude that a language that has not fully stabilized in childhood must be relearned as an L3. Polinsky concludes that "heritage-speakers-turned-learners" may not reactivate their whole HL in cases of renewed contact; instead, they have to relearn certain areas of language structure, particularly morpho-syntax. These speakers may therefore show only "selective advantages in mastering the phonetics and phonology of their L1/L3" (165). Polinsky recognizes, however, that her conclusions are based on limited data, since "the work on re-learning of L1 as L3 is still in its infancy" (165),

A further population that has been a test case for this question of "reactivation-versus-relearning" are internationally adopted children. These are children who are adopted by families that live outside the child's country of birth and move to their new homeland, where they are completely deprived from their L1 from this moment on. As a result, these speakers are posited to effectively lose their L1 and replace it with their L2 (Pallier et al., 2003; Ventureyra et al., 2004). Often, they enroll in language courses to relearn their native language when they are adults. Currently, there is no consensus on the question of whether the L1 is effectively erased from the speakers' brain (as suggested by, for instance, Pallier and colleagues [2003]) or if they maintain L1 remnants that are activated when the speakers are re-exposed to this language. Research with international

adoptees show that there are indeed remnants at least at the phonetic level, which may boost the reactivation of the attrited L1 (Hyltenstam et al., 2009; Park, 2015; Choi et al., 2017). The prediction arising from this observation is that the re-exposure to an apparently lost native language will lead to a learning process that differs from genuine non-native (L2/L3) acquisition.

Moving this discussion to the population of (double) returnee bilinguals, again, the research addressing questions of relearning and reactivation is scarce. We selected two studies on Turkish returnees from Germany in an attempt to discuss this topic, even though indirectly. The first study is by Treffers-Daller and colleagues (2016), who analyzed a property that is challenging in the acquisition of Turkish by non-native speakers, namely collocations and fixed expressions (involving *yap-* and *et-* ‘to do’), and asked if bilingual returnees have difficulties in fully mastering this property after returning to Turkey. The results show that the returnees did not use target-like collocations in their HL Turkish before or right after their return but developed native-like knowledge within seven years of re-immersion in Turkey. Even though they do not compare the target group with L2 learners of Turkish, they conclude that the returnees activated their native language’s grammatical system with increasing input, which is distinct from that of a non-native language. Overall, the finding in this study contradicts the idea that some properties of a native language that are latent or not fully stabilized may be relearned as a non-native language/L3 in a case of increased input. However, there is also evidence that not all linguistic properties of a HL converge toward the monolingual/homeland norm, even several years after the return to the country of origin. This is shown by Kaya-Soykan and colleagues (2020) in a study involving fifteen Turkish returnees. They analyzed the participants’ production and perception of evidentiality markers in their heritage Turkish eleven years after their return from Germany. The authors concluded that even after “many years of residing in Turkey the language behaviour of the returnee participants still differed from monolingual Turkish speakers” (16). Of course, this conclusion does not imply that the HL is like an L3 in this domain of evidentiality markers, but it hints that there are properties of a native language that have to be fully stabilized during the optimal phase in order to for it to be acquired.

In addition to the development of the HL upon return, we may also look at situations of double return. Recall that, in this case, bilingual returnees move to the homeland, typically in childhood, and spend a period of time in the homeland environment, where they lose contact with the L2. After this time in the homeland, the speakers move back to the country of migration and are re-immersed in the dominant L2 environment. This situation was investigated by Flores (2019) in a case study on a bilingual Portuguese–German speaker who moved to Portugal at the age of nine and went back to Germany after a four-year stay in Portugal. During her stay in

Portugal, considerable effects of attrition were detected at various levels of morphosyntactic knowledge; eleven months after being re-exposed to German the rate of attrition in case, gender, and plural marking decreased significantly. The author argues that re-stabilization of native linguistic knowledge occurred, which is in line with the idea that a latent language system is reactivated shortly after the speaker is immersed in the target language's environment.

15.3.3 Scenario 3: L3 Development after Return and the Role of the Dominant Language Environment – A Contribution to the Theoretical Discussion of L3 Acquisition Models

The third and final scenario we would like to consider is how the other languages (L1 or L2 or 2L1) of a returnee may influence L3 development/attrition upon return to the homeland. In Section 15.3.1, we discussed the trajectories of L3 attrition (with the limited evidence available in the literature) and described potential factors that may affect this process in light of findings from L2 attrition literature. What we did not consider, however, is the potential crosslinguistic influence that may occur from the L1/2L1 or L2 to the L3. For example, let us illustrate a hypothetical case of Japanese–English bilingual children who moved to France and acquired French as an L3 in the community. When these children move back to Japan, some may receive the majority of their input in Japanese by entering a Japanese school system, while others may enroll their children in English as a medium (EMI) schools, thereby getting ample English exposure in school. Given that French is not widely spoken in Japan, it is likely that under this scenario, the children's L3 French will undergo changes, perhaps as a result of influence from the L1 (Japanese) or the L2 (English). In such cases, what factors may drive the potential effects of multilingual crosslinguistic influence? Does dominance or linguistic structure play any role? We would like to review some models and studies from L3 acquisition literature for insight into this line of inquiry.

Several formal models have been proposed in the L3 acquisition literature to explain the source of CLI and/or transfer (for discussion on distinctions between CLI and transfer, see Rothman et al., 2019; Schwartz & Sprouse, 2021; for a detailed overview of these models, see Chapter 1 of this volume; but we will use the term “influence” to include all instances of effects from one language to the other). These models, however, mainly focus on the initial stages of sequential L3 acquisition. One of the earlier hypothesis established in the field, the L2 Status Factor Hypothesis (L2SF) (Bardel & Falk, 2012), assumes that the individual properties of the L2 will influence the L3. Following Paradis (2004), the authors assume that this is because the same memory system, namely, declarative memory is used to sustain explicit knowledge of grammar in the L2 and L3, while speakers use procedural memory to sustain implicit or automatized knowledge of

their native grammar. Due to the fact that L2SF does not explicitly state when influence can occur and also confers maturational constraints (i.e., focuses on adult L2/L3 learners), it is uncertain whether it can be applied to predict the nature of CLI in the child returnee population. However, if we were to follow this hypothesis, we would expect syntactic properties of their L2 English to influence their L3 French, regardless of whether they are more dominant (both in terms of proficiency and exposure) in their L2 English or L1 Japanese.

While the L2 Status Factor Model focuses on the sequence of acquisition, the Typological Primacy Model (TPM) (Rothman, 2011, 2015; Rothman et al., 2019) predicts that the structural similarity determines the source of (full) transfer to the L3. The idea here is that, in the initial stages of L3 exposure, linguistic information such as lexicon, phonology, morphology, and surface syntactic structures in the L3 is assessed by the parser against both L1 and L2 grammars. The parser determines the grammar that is holistically closest (i.e., structurally similar) to the L3 grammar and thus is chosen as the best candidate to be transferred onto the L3. Although the TPM restricts its prediction to L3 initial stages, González Alonso and Rothman (2017) call for the need to examine whether models of L3 acquisition can be applied to developmental stages of L3 interlanguage grammar.

An interesting piece of evidence that aligns with the TPM in the developmental trajectories of an L3 comes from Hopp (2019), who tested the applicability of L3 acquisition models to developmental stages in a child population by administering L3 English sentence repetition and oral production tasks in Turkish–German heritage speakers. These children were already learning English as a L3 (once a week) from grade 1 and were tested longitudinally over time, at the end of grade 3 and the end of grade 4 (one year in between). The results showed that, for both sentence repetition and oral production tasks, Turkish–German heritage speakers had greater difficulty (compared to the German “monolingual” controls who were also learning English) with linguistic properties that are dissimilar between German and English, while in terms of shared properties, they showed comparable performance to the controls. Crucially, properties that are different between Turkish and German/English showed no signs of influence in L3 English. Hopp’s finding suggests that child heritage speakers holistically transferred the structurally similar language (German) to their L3 (English), which is line with the TPM. One important aspect that Hopp points out, nonetheless, is that it is impossible to tease apart the effect of dominance from typological proximity since the heritage speakers in his study were more dominant in the majority language, German, rather than their HL, Turkish.

In fact, studies that tested the role of dominance in L3 influence are largely inconclusive (Fallah et al., 2016; Fallah & Jabbari, 2018; Lloyd-Smith et al., 2018; Puig-Mayenco et al., 2018, 2020). For instance, Fallah and

Jabbari (2018) compared L3 English performance of three groups of bilingual young adolescents in their initial stages of L3 acquisition: (1) Mazandarani–Persian bilinguals who are dominant in their L1 Mazandarani, (2) Mazandarani–Persian bilinguals who are dominant in their L2 Persian, and (3) Persian–Mazandarani bilinguals who are dominant in their L1 Persian. The results from a grammaticality judgment task and elicited production task on attributive adjectives showed that language dominance (measured by quantity of exposure) was the only factor that sufficiently explained the observed differences in performance among the three groups. That is, group (1), who is more dominant in Mazandarani, accepted and produced more attributive adjectives in prenominal position, while groups (2) and (3), who are more dominant in Persian, allowed more attributive adjectives in postnominal position. However, the authors do point out that it is difficult to determine which language of the two (Mazandarani–Persian) are more similar to English, rendering it difficult to make strong predictions about the role of structural proximity on L3 transfer, posited by the TPM (and other models such as the Cumulative Enhancement Model (Flynn et al., 2004; Berkes & Flynn, 2012)).

As shown in the studies highlighted, it appears to be extremely difficult to tease apart the influence of external or participant-related factors such as dominance or proficiency (for literature on effects of proficiency, see Lloyd-Smith, 2018) from internal structures of the language on L3 acquisition/development. Moreover, to understand the full picture of how CLI is manifested at the initial stages of exposure to L3 and how this may or may not carry over to later stages of learning or acquisition, there is a need “to start data collection at the initial stages and track these same L3 learners over developmentally long periods of time” (González Alonso & Rothman, 2017: 689). Although limited, there is some work that suggests that factors such as language dominance affect the rate of L3 development past the initial stages of L3 influence (Puig-Mayenco et al., 2020).

We propose that returnees will be an excellent sample to solve these aforementioned issues. First, attrition studies on returnees form one of the few areas of research in which a longitudinal approach is widely adopted, mostly due to the fact that it is crucial to establish a baseline at the onset of their return to pinpoint the changes at the individual level that occur upon linguistic transition. Second, by tracking the development of their L3 from the moment of arrival to the host country to several years after their return to the home country, we will be able to precisely measure how the change in language dominance affects manifestations of L3 CLI. Going back to the Japanese–English–French returnee example, if typological proximity is the driving force of L3 influence at both initial and developmental stages, then it is predicted that English will always influence French, regardless of the changes in language environment. In contrast, if dominance is the sole or overriding factor, then we would expect to see influence from English to

French while the returnees are living in the host country (since Japanese would hypothetically be only spoken in the family unit) and, crucially, there should be a gradual shift in the source of influence from L2 English to L1 Japanese (on L3 French) once the returnees move back to Japan. Alternatively, it could be the combination of both of these factors – for instance, Puig-Mayenco and colleagues (2020) found initial L3 influence from a structurally similar language, followed by an effect of dominance in the developmental stages. The major challenge with such an experimental design, however, is to test children immediately after their arrival to the host country and track them longitudinally until they are back for some time in the home country. Such studies would span over a period of at least three to four years, which is largely impractical and costly. However, we believe that longitudinal studies, coupled with such an interesting and unique population, will provide further insights into how an L3 is acquired and how it may interact with L1 and L2. As acknowledged by Bardovi-Harlig and Stringer (2010), there are several methodological constraints on conducting proper research on L2 attrition in the context of remigration. As has been made clear in this chapter, these constraints are even bigger in research on L3 attrition.

15.4 Hints for Future Work

As discussed in this chapter, returnees are certainly an understudied population and examining their language development can potentially reveal several important questions pertaining to bi/multilingualism. So far, the majority of work on returnees has focused on the process of L2/2L1 attrition, and very few studies have looked into the effects of re-exposure to their native HL, let alone their development/attrition in their L3. Moving forward, we first need to further examine what the L3 acquisition process looks like for children and whether current L3 models can be adapted to the developmental stages of language acquisition. In doing so, returnees can serve as a test-case to tease apart the effects of dominance from others (linguistic structure, language proficiency), precisely because they are a subset of bi/multilinguals whose dominant language of the society changes during their formative developmental years. It is, however, important to carefully choose the language combinations of the returnees – ideally, one of the other languages (L1 or L2) that is structurally similar to the L3 should undergo change in dominance. For instance, Flores's Portuguese–German–English returnees will be a good population to examine, since German and English are typologically similar languages and these returnees move away from the German-dominant environment.

What will be extremely crucial when investigating L3 attrition/development in the returnee population is to establish what their baseline performances look like prior to their return to the home environment.

Therefore, we strongly recommend that such studies be longitudinal in nature. We know much less about what the trajectories of L3 acquisition look like in any given linguistic property, compared to the vast amount of work that has been conducted in the L2 with various linguistic structures. Thus, it will be nearly impossible to differentiate the process of “attrition” from “delayed acquisition” if we were to test the returnee’s L3 performance at one point in time. Only when we can gauge the *changes* that occur in one’s L3 before and after the linguistic transition can we be relatively certain about the source and nature of that process.

We also are in need of more studies that examine the interactions among the returnee’s languages – whether it is between L1 and L2, L1 and L3, L2 and L3, or among all languages of a returnee. To date, no prior study has simultaneously examined the process of L2 (or 2L1) attrition as well as effects of re-exposure to the native HL. Exploring these interactions among languages will provide us with an understanding of some of the questions raised in this chapter, such as whether L3 attrition follows the same trajectories as L2 attrition, and whether the same background factors modulate these processes.

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