The Impact of Portuguese on the Study of Third Language Acquisition

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Abstract: Over the last several years we have been witness to a growing body of work that examines the acquisition of Portuguese as an L3 here in the US Spanish speakers account for 45% of students enrolled in Portuguese classes (Milleret 2012), divided among L1 Spanish speakers, L2 Spanish speakers, and heritage speakers. While these three groups are all speakers of English and Spanish, they differ with respect to the order and context of acquisition of the two languages. In this essay, I propose that access to these three linguistic profiles in Portuguese classes offers a unique opportunity for us to study third language acquisition here in the US that arguably has not been afforded elsewhere. In L3 acquisition research, a primary interest is in the differences in acquisition processes when comparing learners with a mirror image language pairing (in this case, L1 English/L2 Spanish compared with L1 Spanish/L2 English). More recently, we have also begun to examine how mirror-image groups of sequential bilinguals compare with early bilinguals (in this case, heritage speakers of Spanish). Herein, I review research questions that drive the field and illustrate how we have addressed these questions via examination of L3 Portuguese acquisition.

Keywords: bilingualism, Portuguese, second language acquisition, third language acquisition, crosslinguistic influence/bilinguismo, português, aquisição de segundas línguas, aquisição de terceira língua, influência translinguística

1. Introduction

The study of third language (L3) acquisition, while still a nascent field, has seen an appreciable uptick in attention over the last decade and a half. Multilingualism in the world is the rule and not the exception, as evidenced by an estimated 7,097 languages (Lewis, Simons, and Fennig 2016) distributed among fewer than 200 countries. As Gorter et al. note, this “spread of multilingualism justifies its importance in research” (5). Moreover, it has generally become accepted that the study of L3 acquisition can uniquely inform larger questions of language acquisition that we cannot answer via first language (L1) or second language (L2) acquisition alone. With that said, the majority of research in linguistic approaches to multilingualism has been primarily limited to a European context (see e.g., Rothman, Cabrelli Amaro, and de Bot 2013, for a review). Until very recently, contributions to the study of third language acquisition originating from research conducted in the US has been minimal, and research from scholars in US universities has primarily focused on the acquisition of English as a third language in European and Asian contexts (see e.g., Flynn, Foley, and Vinnitskaya 2004; Sanz 2000). However, over the last several years we have been witness to a growing body of work that examines the acquisition of Portuguese as an L3 here in the United States. As Milleret (2014) notes, the study of Portuguese is at its “healthiest and most promising point in its history to date” (18), with more than 11,000 students enrolled in post-secondary Portuguese courses between 2006 and 2009 (Furman, Goldberg, and Lusin 2009). She attributes the interest
of Spanish speakers as a primary factor responsible for the health of Portuguese language study. In fact, based on survey data from Milleret (2012), Spanish speakers account for 45% of students enrolled in Portuguese classes. Of these 45%, L1 Spanish speakers account for 13%, heritage Spanish speakers account for 15%, and L2 Spanish speakers account for 17%. While these three groups are all speakers of English and Spanish, they differ from one another with respect to the order and context of acquisition of the two languages.

In this essay, I propose that access to these three linguistic profiles in Portuguese classes offers a unique opportunity for us to study third language acquisition here in the United States that arguably has not been afforded elsewhere. In L3 acquisition research, one of our primary interests is in the differences in acquisition processes when comparing learners with a mirror image language pairing (in this case, L1 English/L2 Spanish compared with L1 Spanish/L2 English). More recently, we have also begun to examine how mirror-image groups of sequential bilinguals compare with early bilinguals (in this case, heritage speakers of Spanish). Herein, I review a set of research questions that currently drive the field and illustrate how we have addressed these questions thus far via examination of L3 Portuguese acquisition in a US context. I then posit how our understanding of these questions can expand moving forward, calling specifically for large-scale longitudinal studies and collaboration across institutions and study abroad programs.

2. Evidence of L2 Ultimate Attainment and a Bilingual Advantage in L3 Acquisition

The question of whether learners are able to acquire properties of an L2 that are not part of the L1 is a core issue in the study of adult language acquisition, and L3 research has shed new light on this question. In studies such as Cabrelli Amaro, Iverson, and Judy (2009) and Iverson (2009, 2010), the study of L3 acquisition at the initial stages has been used as a litmus test to tease apart competing hypotheses that claim that certain grammatical features can(not) be acquired after a so-called critical period. The aforementioned studies examine the initial state of Portuguese in L1 English/L2 Portuguese learners versus L1 English/L2 Spanish/L3 Portuguese learners, with a focus on morphosyntactic properties (e.g., grammatical gender) that are common to Spanish and Portuguese but are not a part of the English grammar. Research of this type has been possible in US universities because, in addition to the 45% of Portuguese students that speak Spanish, 16% of Portuguese students are English monolinguals (Milleret 2012). Cabrelli Amaro et al. (2009) and Iverson (2009, 2010) all show that the L2 Portuguese groups do not have knowledge of the relevant properties, while the L3 Portuguese groups do. They conclude that the relevant properties that are not part of English must be acquirable in adulthood since the source of their appearance in L3 Portuguese at the onset of acquisition could only be traced back to the learners’ L2 (Spanish). This type of evidence also brings new insight to the common question of whether bilinguals are better equipped than monolinguals for subsequent language acquisition, at least in terms of the facilitation of specific linguistic experience. Of course, transfer is not always facilitative, and non-facilitative transfer can potentially lead to early fossilization (see e.g. Simões,
Carvalho, and Wiedemann 2004). I address this further in the discussion of the role of the language transferred (L1 or L2) in L3 development.

3. Source(s) of Transfer in L3 Acquisition at the Initial Stages

In the previous section, I report on evidence of Spanish transfer to L3 Portuguese by L1 English/L2 Spanish/L3 Portuguese learners. The source of transfer in L3 acquisition is by far the most commonly researched question, particularly in the generative tradition (see e.g., García-Mayo and Rothman 2012, for a review). Its value lies in how it affords the chance to tap into how and why previously acquired linguistic knowledge constrains acquisition of a novel language. While in L2 acquisition there is only one possible transfer source, there are two possible sources in L3 acquisition. By identifying the source of transfer at the initial stages of L3 acquisition, we can begin to disentangle the numerous factors that contribute to the complex and dynamic nature of transfer. A number of factors have been posited to be the determining variable in L3 initial stages transfer. These include a privileged status a) for the L1 given its entrenchment (The L1 Transfer Scenario, e.g., Hermas, 2014) and b) for the L2 due to the similarity in which an L2 and L3 are acquired (The L2 Status Factor, e.g., Bardel and Falk 2007). Rothman’s Typological Primacy Model (TPM; e.g., Rothman, 2015) assumes that the source language is that which is determined by the linguistic parser to be structurally more similar to the L3. While these three proposals assume that one linguistic system is transferred in its entirety, the Cumulative Enhancement Model (Flynn, Foley, and Vinnitskaya 2004) claims that the source of transfer can be from any existing system. Transfer happens in a piecemeal fashion and is predicted to only be facilitative. If there is no facilitative source available, transfer will not occur.

In the last several years, a series of studies of different profiles of English/Spanish bilinguals acquiring L3 Portuguese has been published, the majority of which supports Rothman’s TPM. This is especially true for the domain of morphosyntax. That is, regardless of whether the learners are L1 Spanish speakers, L2 Spanish speakers, or heritage speakers of Spanish, there is evidence of transfer of the Spanish system. This has been found for word order and relative clause attachment preferences (Rothman 2010), object expression (Giancaspro, Halloran, and Iverson 2014; Montrul, Dias, and Santos 2011), adjective placement (Rothman 2011), and raising phenomena (Cabrelli Amaro, Amaro, and Rothman 2015). Considerably less evidence is available for phonology, although Cabrelli Amaro and Rothman (2010) present evidence of Spanish transfer to Portuguese by two heritage speakers and two adult L2 Spanish learners. Preliminary results from a study by Cabrelli Amaro and Berrios (in preparation) support these earlier findings, this time with respect to vowel contrasts in speech production. In spite of the more uniform evidence we have from the domains of syntax and phonology, research from Koike and colleagues suggests that transfer of linguistic patterns to L3 Portuguese that are impacted by sociocultural norms may come from the L1. For example, Koike and Flanzer (2004) found that heritage Spanish speakers implemented Brazilian-like speech acts more than L1 English speakers in written Portuguese, citing commonalities between speech acts in Spanish- and Brazilian Portuguese-speaking communities. However, an examination of oral data using the same data collection instrument (Koike and Palmiere 2011) revealed that there was no clear-cut source of transfer, with only one pragmatic
context showing clear transfer from the L1. Additional research is needed to determine whether Ringbom’s (1986) hypothesis that L2 transfer is form-related, while meaning-related transfer will originate from the L1 (i.e., the learner’s dominant language).

4. L3 Development

Given how young the field of third language acquisition is, it is not surprising that much of what we have available to us concerns the initial stages of acquisition, with less research dedicated to development. This could also have to do with the fact that advanced Portuguese courses are not particularly common in the United States, which makes it harder to get data from larger groups at very high levels of proficiency. That said, this is a question of interest to us for a number of reasons, two of which we address here: the role of the language transferred, and the phenomenon of regressive transfer.

4.1 The Role of the Language Transferred in L3 Development

Let us consider that initial stages research has shown that in the case of English/Spanish bilinguals acquiring Portuguese, Spanish is most likely to transfer (and according to the TPM, it is assumed to transfer in its entirety). When full transfer occurs, we know that there will be facilitative transfer as well as non-facilitative transfer. The learning task is then of course to overcome non-facilitative transfer, which, as is the case in L2 acquisition, can be persistent (see e.g., Carvalho and da Silva, 2006 and Montrul et al. 2011 for evidence of Spanish influence in intermediate Portuguese speakers). A newer line of research examines L3 development to better understand what overcoming transfer looks like for the different bilingual profiles that we discuss here. Cabrelli Amaro and Rothman (2010) hypothesized that non-facilitative transfer in L3 Portuguese might be easier to overcome depending on whether Spanish was acquired in childhood or adulthood. While Jin (2009) has shown that non-facilitative transfer can be overcome in L3 acquisition, it was not known how mirror image groups would compare developmentally after initial non-facilitative transfer. Specifically, it was proposed that L1 Spanish learners take longer than L2 Spanish learners to acquire a property in Portuguese because of L1 versus L2 experience. The length of experience with the L1 is thought to (at least temporarily) impede the mechanisms that drive acquisition. Evidence to support this hypothesis has been found for morphosyntactic elements as well as for reaction time in phonological processing. Cabrelli Amaro, Iverson, Giancaspro, and Halloran (2016) investigated the status of differential object marking in L3 Portuguese, and found that intermediate Portuguese learners still rely on Spanish regardless of whether Spanish is the L1 or L2. However, the L2 Spanish advanced Portuguese learners pattern with the native Portuguese control group while the L1 Spanish advanced Portuguese learners pattern with the intermediate Portuguese learners. In a study of raising across a dative experiencer, Cabrelli Amaro (2015) compares initial stages data from Cabrelli Amaro et al. (2015) with data from advanced Portuguese learners. Similarly to Cabrelli Amaro et al. (2016), the cross-sectional comparison reveals that the advanced L1 Spanish group is different than the native Portuguese control and the L2 Spanish group, while the L2 Spanish group is not different than the control. In spite of this difference, a comparison of the L1 Spanish initial stages and advanced data reveals a
significant difference, which is indicative of progression towards the Portuguese target (albeit at a slower pace than the L2 Spanish group). Finally, Cabrelli Amaro (2013) presents a similar finding in a study of word-final vowel reduction. While there was no difference found between L1 Spanish and L2 Spanish advanced learners of Portuguese in terms of accuracy in an auditory preference task, L2 Spanish learners selected accurate responses significantly faster than L1 Spanish learners. Taken together, these studies indicate that development of mental representation and processing routines may be slower for learners that transfer their L1.

The studies discussed in this section center on differential rates of acquisition driven by age of acquisition and dominance, and assume that the processes involved are unconscious rather than metalinguistic. However, whether learners acquire Spanish in a classroom or naturalistic context may correlate with rate of L3 acquisition. L2 Spanish speakers have been found to count on explicit learning strategies in the L3 Portuguese classroom, while L1 Spanish and heritage Spanish speakers favor implicit strategies (Carvalho and Silva 2006; Child, in press). It would appear that higher metalinguistic awareness helps L2 Spanish learners to overcome non-facilitative surface transfer more quickly (e.g., Johnson 2004) and to capitalize on facilitative transfer of rule-based strategies (e.g., Child 2014). This difference is indicative of the strength of Spanish transfer in L3 Portuguese; these L1 Spanish learners have acquired some of their L2 English in a formal context, but continue to rely on implicit strategies even though they have presumably made use of explicit strategies at some point in the acquisition of their L2.

4.2 Regressive Transfer

Just as existing linguistic systems influence the acquisition of a novel system (in this case, an L3), an L3 can also influence the L1 and L2. The phenomenon of Portuguese regressive transfer to the L1 and/or L2 has been investigated in terms of facilitative and non-facilitative transfer, and evidence of regressive transfer has been found in both systems at varying levels of L3 proficiency. In his study of mood expression, Child (2014) found that data from L2 Spanish learners acquiring L3 Portuguese, unlike those of their L1 Spanish and heritage speaker counterparts, yielded higher rates of accuracy on a Portuguese task taken after 10 weeks of instruction than the Spanish task that they completed at the L3 initial state. Based on this finding, it is possible to speculate that this learner group’s Spanish accuracy score would improve if they were to have completed a Spanish post-test at the 10-week mark. Such an outcome would bolster findings with different language pairings comparing L2 and L3 learners (e.g., Tsang 2015), and points to the possibility that L3 acquisition modulates non-facilitative L1 \(\rightarrow\) L2 transfer. Cabrelli Amaro (2016) focused on non-facilitative regressive transfer and compared two types of English/Spanish bilinguals acquiring L3 Portuguese to determine whether L1 or L2 Spanish systems are more vulnerable to L3 influence. She tested whether the constitution of phonological systems acquired in adulthood is less stable than systems acquired in adulthood. Perceptual preferences appeared to remain stable for L1 and L2 Spanish learners. At the individual level, she found evidence of L3 Portuguese reduced vowels in the Spanish productions of L1 Spanish and L2 Spanish speakers at intermediate and advanced levels of proficiency. This is not surprising, given the extensive literature
on phonological attrition. However, looking at the aggregate means, only the L2 Spanish group produced vowels that were not Spanish-like, evidence of greater instability in speech production patterns in late-acquired systems. Similar findings come from Cabrelli’s (submitted) study of raising across a dative experiencer. Testing the same learners from Cabrelli (2016), she shows that L2 Spanish speakers are more accepting of structures that are ungrammatical in Spanish (but grammatical in Portuguese) than L1 Spanish speakers. Thus, while there might be a direct benefit to a previously fossilized L2 in the case of elements that are similar in Spanish and Portuguese but different in English, L2 Spanish speakers might be expected to struggle more to maintain their late-acquired Spanish system than their L1 Spanish counterparts. It remains to be seen how heritage speakers’ speech production is affected and the role that Spanish dominance might play in differential stability of the Spanish system.

5. Moving Forward via Longitudinal Investigation

Although I would argue that the evidence regarding initial stages transfer is quite convincing for the language triad discussed herein, there is still a lot of ground to cover in order to have a holistic view of the processes that comprise third language acquisition. Via longitudinal investigation, we can cover a lot of this ground and improve upon methodological shortcomings while doing so.

Existing developmental data come from a cross-section of learners. While cross-sectional data are logistically more feasible to collect than longitudinal data, cross-sectional data are less than ideal in third language acquisition research. Even when we control our participant pools so that they are as similar as possible across proficiency levels (and across studies), inter-learner variation is virtually impossible to control for. Relatedly, we face the challenge of establishing the composition of each learner’s L3 initial state; if we want to have a better picture of the L3 developmental path, we need to know what each learner’s L1 and L2 looked like prior to Portuguese exposure. In studies such as Cabrelli Amaro (2016) and Cabrelli Amaro et al. (2015), the authors assume that the L3 learners have acquired the structures under investigation in both their L1 and L2. This assumption is based on independent L3 initial stages data; the intermediate and advanced L3 learners that are tested are not the same learners as the L3 initial stages learners that they are compared to. It is therefore possible that some of the intermediate or advanced learners had not acquired the structure in the L2, or perhaps that the structure in their L1 has undergone modification due to L2 influence. Many of the L3 studies discussed in this essay were designed so that the phenomenon that is tested presents similarly in Portuguese and English but differently in Spanish. Thus, if an intermediate or advanced L2 Spanish learner appears to have converged on the Portuguese target, it is possible that the learner transferred Spanish, but that they had never acquired the phenomenon under investigation (thereby relying on English). Cabrelli Amaro (2013) warns of this in her report of a longitudinal L3 case study. She follows a near-native L2 Spanish speaker, collecting Spanish data at the L3 initial state before exposure to Portuguese. She finds that prior to exposure, the speaker had only partially converged on the Spanish vocalic target even though he met the global criteria to be considered a near-native speaker. We therefore cannot assume that learners that are considered near-native have all of the same linguistic patterns as a native speaker or even a separate group of
initial stages L3 learners. In a longitudinal investigation, we can use each learner as his or her own control. We can follow them from the onset of L3 acquisition throughout development towards L3 target-like convergence, and we can observe potential regressive transfer to the L1 and/or L2. We can examine each of the questions outlined in this essay for individual learners and present a holistic account of what L3 acquisition looks like for learners from each of the three profiles. Another benefit of longitudinal investigation is that we are not limited to examining near-native speakers of the L2 (or non-dominant language, in the case of most heritage speakers). We can examine the effect of proficiency in transfer patterns and determine whether learners must acquire a specific level of proficiency in order for transfer to occur, whether L3 competence is affected by proficiency in existing languages, and whether less-developed systems will be more susceptible to regressive influence than systems that are native-like. None of these questions have been investigated for the language triad described here.

6. Conclusion

In this first part of the Twenty-First Century, the investigation of L3 Portuguese has made a valuable contribution to the theoretical and empirical foundations of third language acquisition. We have begun to understand how English-Spanish bilinguals (differentially) employ their existing linguistic systems when learning Portuguese, and how Portuguese (differentially) interacts with these learners’ English and Spanish systems. The potential to improve upon this mark is very high, but there is no doubt that the call made here for large-scale longitudinal research is a tall order. To realize the goal of modeling L3 development, collaboration between institutions will be paramount. Specifically, joint efforts between programs that offer a Portuguese minor or major (typically doctoral institutions, as noted by Milleret 2012) will allow us to follow students across multiple semesters of study. In addition, we can work with university-affiliated and private study abroad programs in Brazil and stateside immersion programs such as the Portuguese School at Middlebury College to observe learners over time in different contexts of acquisition, comparing the interaction of linguistic systems in a classroom versus immersion setting. We can also follow learners between settings. For example, we can examine learners in an immersion setting and then determine how persistent any observed Portuguese effects on existing systems are once the learner leaves an immersion setting. It will be of interest to follow learners like these more closely to determine the rate at which influence decreases, as well as the rate at which the L3 attrites (see Bardovi-Harlig and Stringer 2010, for a review of attrition of languages acquired in adulthood).

Ultimately, a clearer understanding of the nature of transfer to an L3 and L3 developmental patterns will have direct implications for Portuguese classroom practice. The more we understand about the nature of the existing knowledge that learners rely on and how the learners’ Spanish and Portuguese systems interact throughout development, the more efficient and effective our curricula can be. While we have seen evidence of common threads in the three learner profiles, we also see a number of differences that indicate a need for differentiated instruction in order to accommodate sequential and early bilinguals that share the same classroom. Innovations in pedagogical practices will in turn inform the questions of L3 acquisition that I have elaborated on herein, propelling a valuable reciprocal relationship that will advance the field.
WORKS CITED


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