CONSIDERATIONS ON THE ROLE OF INPUT IN L2 ACQUISITION: ELT AND BILINGUAL CONTEXTS

CONSIDERAÇÕES SOBRE O PAPEL DO INPUT NA AQUISIÇÃO DA L2: CONTEXTOS BILÍNGUES E DE ENSINO DE INGLÊS

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Resumo

Este trabalho levanta questões linguísticas pertinentes ao contexto de desenvolvimento de L2, como o papel do input tanto no desenvolvimento do inglês em estágios iniciais da vida quanto na idade adulta, à luz da Teoria de Princípios e Parâmetros (CHOMSKY, 1981, 1986, 1988, 1995). Na parte final do trabalho, apresento uma reflexão sobre (i) a relevância do papel do input em ELT, e (ii) de se prover *input* ideal à criança no contexto bilíngue, como forma de maximização das chances de desenvolvimento e aquisição de uma L2, valendo-se do seu momento aquisicional privilegiado.

Palavras-chave: input; Princípios e Parâmetros; abordagem gerativa para aquisição de L2; bilinguismo.

Abstract

This paper raises linguistic questions pertinent to the context of L2 acquisition, such as the role of input in the development of English as an L2 both at the early stages of life and in adulthood, in light of the Theory of Principles and Parameters (CHOMSKY, 1981, 1986, 1988, 1995). Towards the end of this paper, I entertain a reflection on (i) the role of input in ELT and (ii) the importance of providing the child in the bilingual context with optimal input as a means of maximizing the chances of an early learner to acquire and develop the L2, at an age in which s/he is best equipped to engage in language acquisition.

KEYWORDS: input; principles and parameters; generative approach to L2 acquisition; bilingualism.

0. Introduction

With the introduction of the Theory of Principles and Parameters in the 80's (CHOMSKY, 1981), generative linguistics gained momentum, especially in the language acquisition studies. The generative approach to language acquisition presupposes a biological device specialized in the development of language in the human being, namely Universal Grammar (UG). The very existence of a biological and innate mechanism responsible for language acquisition does not render the role of the environment useless, however. The 'language organ' relies on the input present in the environment much in the same way that a child needs to be nourished in order to grow. This is a point often criticized by the layman, who erroneously believes the generativists defend that language will develop independently of the stimulus.

Chomsky (1981, 1986) states that a child develops a first language (L1) by being exposed to robust input in that language. This input, present in the environment, contains the Primary Linguistic Data (PLD) that will provide the child with the essential information (in the form of 'triggers'¹) necessary to set the parameters to build the grammar of his/her L1. Traditionally, the positive setting of a given parameter, say the Null Subject Parameter (NSP), would be responsible for a cluster of structures connected to it; thus, the minute the child sets a specific parameter in a language, a cluster of structures related to that property will become available for the child, a fact that seems to have been first attested in the acquisition of English as an L1 by Hyams (1986). The NSP is arguably the most investigated phenomenon in the Generative Literature. Within the Parametric view of language acquisition, the positive setting of the Null Subject Parameter comprises the following cluster of structures (CHOMSKY, 1981; RIZZI, 1982)²: (1)

- a. null subject/ missing subject/ pro drop
- b. expletives
- c. Postverbal subjects
- d. long wh-movement of subjects
- e. empty resumptive pronouns in embedded clauses
- d. violation of that-trace filter (*that-t*)
- f. rich subject-verb agreement morphology

¹ See Lightfoot (1993) for detailed description and examples.

² This is not widely accepted, as many of the structures of the cluster do not occur uniformly in all Null Subject languages. For a discussion/critique of the cluster of structures associated with NSP see Kato & Duarte (2017). For a historical view and further discussion of NSP properties, see Camacho (2016). For a discussion on the notion of 'parameter,' see Gallego (2011).

This would account for the fact that in the process of their L1 development, children go from not speaking much to producing a lot of language in a limited amount of time, thus rendering L1 acquisition "instantaneous." This process is triggered by the structures present in the L1 input, available for the child in his/her environment. The input in L1 is disorganized, unplanned, fragmented and based on positive evidence.³

In L2 acquisition (L2A), it is not clear that by acquiring one structure in English, all the other structures will become instantly available in the learner's interlanguage, as is the case in L1 acquisition. Further, the input in L2 is less likely to be as robust and rich as it is in L1, particularly if it is to be found in the classroom⁴. The focus of this paper is to discuss characteristics and effects of L2 input within the instructed language learning setting.

In the generative study of L2 acquisition (L2A), the question of whether the Universal Grammar (UG) innate mechanisms plays any role in L2A, with any similarity to L1 acquisition (L1A), has been the center of much research over the past 30 years within the generative framework. A substantial body of research is available that supports the view that UG remains fully active, and to some extent, accessible for adult L2 acquisition (DEKYDTSPOTTER, SPROUSE & ANDERSON, 1997; DEKYDTSPOTTER, SPROUSE & SWANSON, 2001; HERSCHENSOHN, 2000; MARCELINO, 2007, 2014, 2017; SLABAKOVA, 2008; SCHWARTZ & SPROUSE, 1996, 2013; VAINIKKA & YOUNG-SCHOLTEN, 1994; WHITE, 1985, 1989, 1990, 2003).

L2A studies are usually compared to or inspired by L1A studies if any role of UG mechanisms is to be found. This is due to the fact that one needs to have some sort of parameter system in terms of language acquisition, and it is common sense that acquisition does happen in L1, thus providing a good criterion on which to base our questions about L2 language development. In L1A (CHOMSKY, 1981, 1986), it is assumed that a child develops a language by being exposed to robust input in that language, thus the role of the input is crucial. This input contains the Primary Linguistic Data (PLD) from which the child can draw information to build his/her grammar. This way, input in L1A seems to be reasonably guaranteed and comprehensive, so that it will contain all the necessary data for the child to extract all the information that will guide the makeup of his/her L1. The logical question following from these assumptions is to what extent the same is true in L2A. Language acquisition can be investigated from all sorts of perspectives. In this paper, I will

³ Positive evidence is the input in the form of `correct sentences' that exist in the language and would be used by any speaker of the language, as opposed to negative evidence, which contains examples of what one is not supposed to say, also known as corrective feedback.

⁴ If the L2 input is to be found in an English speaking community, as is the case of a learner who moved to country where English is spoken, then the L2 input would be of a different nature, and the L2A process would be likely to be different from what is discussed here.

approach this phenomenon from an input perspective on this process, in light of generative approaches to L2A.

For the remainder of this paper, I will approach issues that stem from the following:

- (i) the difference between the kind of input found in the two L2A contexts (bilingual education and instructed language learning).
- (ii) the L2 grammar the learner might build based on the type of input received in each context.

This paper is organized in 5 parts: the introduction, the input in L2, the ELT context, the bilingual context, and final remarks.

1. Input is of foremost importance

Acquisition cannot take place without input. This assumption seems to have been central in every discussion on language acquisition and learning. Over the years, the importance of input has varied depending on the perspective or author involved in the study (ELLIS, N., 1994; ELLIS, R., 2008). While some approaches consider the input a highly essential factor, others neglect it to a secondary role. Nevertheless, they all acknowledge the role of input in providing the linguistic data necessary for the development of the linguistic system.

Historically, one of the founding theories of language learning, which still impacts the studies of L2A today, is the input hypothesis established by Krashen (1981). The input hypothesis posits that for L2A to take place, language learners are required to have access to comprehensible language input. Krashen defends that the only variable capable of accounting for L2A is comprehensible input. This hypothesis, stemming from the monitor hypothesis, became most popular in the 80's and 90's and although outdated is still very influential in the ELT world.⁵ In fact, it was supported and disseminated by a number of researchers (LONG, 1982; ELLIS, R. 1999; GASS & VARONIS, 1994) who have elaborated on the input hypothesis, breaking it down into pre-modified input, interactionally modified input, and modified output as three subclasses or types of comprehensible input.

Pre-modified input would be a type of input made simpler in some way before the learner is exposed to it. Interactionally modified input refers to input which has been modified in the course of interaction with native or

⁵ Partly because it seems to have a direct application in classroom settings, suggesting a fine bridge between theory and practice. However, most recent and relevant studies on L2A have not reached the classrooms.

proficient nonnative speakers in the interest of comprehension. Last, modified output refers to language that is made simpler to ensure the interlocutor can understand it; it may refer, again, to native speakers or more proficient nonnative speakers engaged in communication with less proficient speakers. To clarify any misunderstandings, a learner's (or native speaker's) modified output can serve as another (less proficient) learner's comprehensible input (ELLIS, R. 1999; LONG, 1996).⁶

Another important aspect to be considered when one looks at discussions about the role of input in L2A is the quality of input being natural or instructed and how it is processed by language learners. The literature on the role of input in learning and acquisition is vast and comprehensive, covering different theoretical approaches to the topic. This paper focuses on the role of input in helping build mental representations, as perceived by the learner internal mechanisms in the process of language acquisition, ultimately yielding a "change in an individual's internal mental state" (DOUGHTY & LONG, 2003:4).

I will assume a perspective in which input is essential for language development, even in L2A. Input will be considered as information provided to a learner's mind, and the L2 acquisition process is viewed in terms of representations the mind assigns to the data with which it is provided. This way, the language input received by the learner in the classroom setting, both in ELT and bilingual contexts, will be approached in these terms. The focus, thus, is not whether the input is modified or not, but that it exists and is provided to the learner in these contexts. The learner in turn processes this information and retains it, assigning a linguistic form to this input, which may or may not conform to the received input. As this happens, a mental representation of the data is determined by internal mechanisms of the mind and the result is acquisition. Next, I'll take this into consideration in light of the ELT context.

2. Input in the ELT context: some considerations

(2)

In general terms, the L2 input is described and compared to L1 input, displaying the characteristics shown in (2)

(2)	
Input em L2	Input em L1
Modified	 Natural (and "unabridged")
 Organized 	Caotic
 Progressive in difficulty (from 	Disorganized

⁶ See the authors mentioned here for a full description of these types of input.

 "easy" to "difficult") Based on rules and conscious learning Positive and negative evidence 	 Not based on supposed difficulty Fragmented Based on positive evidence
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Despite the nature and characteristics of the L1 input, the learner is able to develop a complete grammar of his L1, which came to be known as the-poverty-of-the-stimulus argument, or the logical problem of language acquisition.⁷ The L2 learner, on the other hand, who is exposed to a planned, modified, and progressively organized input, will, as often as not, develop a grammar that is "incomplete" when compared to the L1 process. It's not all bad news, though; the interlanguage developed by the L2 learner (L2er) usually goes beyond what would be typically expected, given the input. In other words, the L2er ends up with knowledge that goes beyond the information presented in the input directed to him, which is seen as evidence of the-poverty-of-the-stimulus argument in L2. On the easy-to-difficult progressive organization of the L2 input, it is important to note that this remains as a manifestation of the i+1 idea, common to the ELT context. Typically, the L2er shows lack of success in mastering such "easy" structures that are presented in early stages of learning, namely 3rd person singular (the correct use of *s*/-*es* with 3rd person pronouns, *he*, *she*, *it*). Such difficulty has been attested in advanced and proficient learners of English, despite its "easy" nature and characteristics.⁸

2.1 When the input is not present in the instruction

In Marcelino (2007, 2017), I investigated, among other things, whether proficient learners of English were able to attain the resultative structures in English, although they were neither presented to them in classroom contexts nor available in ELT materials. Resultative structures typically reflect the order V NP AP, in which the AP results from the activity or action described by the verb:

(3) Resultative structures (RS)

- a. John [v wiped] [NP the table] [AP clean]
- b. John [v walked] [NP his shoes] [AP threadbare]

 $^{^{7}}$ As a reference to the development of a complete grammar in L1, in the face of such limited and poor input.

⁸ See Bailey, Madden & Krashen (1974) for information on the order of L2 acquisition of morphemes. Although the order-of-morpheme study is controversial, it was a landmark in the L2A studies. A number of studies followed from it.

c. Anna [v sang] [NP her baby] [AP sleepy]

RS were absent from the input directed to the L2ers in the course books and grammar books investigated.⁹ The only example found in one of the coursebooks was "wipe the slate clean," present in a reading lesson in one of the advanced books, but it was not the grammar focus of any of the units in the book.

Brazilian Portuguese (BP) does not offer resultatives of the English type V NP AP. The BP equivalent of (3a), *John esfregou a mesa limpa*, has, at best, a depictive reading, meaning the table that John wiped was already clean, and not that the table became clean as a result of John's wiping on it. Other examples of English resultatives that translate into depictive readings in BP are¹⁰:

(4)

a. cook the lamb dry – *cozinhar o carneiro seco* (cook the dry lamb) b. wash your hands clean – *lavar suas mãos limpas* (wash your clean hands)

A number of V NP AP resultatives, however, do not offer a depictive reading in Portuguese:

(5)

a. walk your shoes threadbare – **andar seus sapatos gastos* b. sing someone sleepy – **cantar alguém sonolento*.

The BP resultatives are semantic resultatives made up of V+PP (*até* phrase):

(6)

a. João andou até gastar seus sapatos ("John walked until wear his shoes" – John walked until his shoes were worn (out))

b. Anna cantou até seu bebê ficar sonolento ("Ana sang until her baby stay sleepy" – Anna sang until her baby become sleepy")

That said, I will draw on Marcelino (2017) who investigated whether Brazilian learners of English were able to display knowledge of five structures in English, one of which is the RS, nonexistent in BP. Participants were asked to consider the acceptability of a number of sentences that were

⁹ See Marcelino (2017) for a discussion of the coursebooks investigated and a list of all the materials.

¹⁰ Examples taken from Marcelino (2017).

appropriately contextualized (DEKYDTSPOTTER et al, 1997; KANNO, 1997, 1998). Two groups were tested, a proficient group and an intermediate group. A control group was also included in the experiment, as expected. The findings of the intermediate group alone suffice to make the case for the logical problem of L2A, or knowledge in the absence of instruction. The intermediate L2ers displayed considerable knowledge of RS, even though they had not been exposed to them, at least not formally through instruction.¹¹ Comparison between the intermediate and advanced groups provided evidence for a steady increase in their knowledge of the RS. This increase might be indicative that the acquisition of the RS "is shaping up" in the intermediate group, who lagged behind specifically in relation to these structures. The knowledge of RS, however, increased substantially in the advanced group.¹²

The fact that the intermediate group displayed less knowledge of the RS might simply evidence a different stage of their interlanguage development. It might just indicate a stage (much) prior to their steady state of L2 acquisition. The author explains that it would be appropriate to entertain the hypothesis that the advanced learners might have been at a similar stage at some earlier point of their interlanguage development.

The study on the RS draws on an investigation of the acquisition of English structures that are not present in BP. Having received very little or no instruction in the topics, the Brazilian L2ers displayed increasing knowledge about the constructions, a fact that can only be accounted for in terms of the poverty-of-the-stimulus argument. Specifically about the RS, the 2017 study draws on the Principles and Parameters Theory (PPT) and its clustering effect to provide an explanation of how those structures came to be acquired. According to the PPT, a cluster of structures is acquired when the learner "notices" the data in the input that will positively set the parameter responsible for the cluster. As an example, all the structures present in (1) will become instantly available to the learner when the NSP is positively set, e.g. Italian, Spanish, etc. The negative setting of a given parameter, say the NSP, will yield the structures in (1) as constraints in that particular language, e.g. English. Similarly, the positive setting of the Compounding Parameter (SNYDER, 1996, 2001) will make the following structures available:¹³

¹¹ There is no accounting for the L2 exposure outside the instructed L2 learning settings. This remains as a limitation of the study.

¹² For a detailed description of the experiment, as well as all the statistical analyses, see Marcelino (2017).

¹³ Recently, this view has been challenged by some researchers within the PP approach. Nonetheless, a better explanation is in order if one wishes to account for the simultaneity of

(7)

- a. N+N compounding: banana box, book worm
- b. Resultative: John wiped the table clean.
- c. Verb-Particle: Mary picked up the book/picked the book up.
- d. Double Object Dative: Alice sent Sue the letter.
- e. Preposition Stranding: I know who Alice sent the letter to.

Whether one agrees with the clustering effect or not, one needs to acknowledge that the developing knowledge of RS (or any of the other structures related to it) must be underdetermined by the L2 input, as predicted by the poverty-of-the-stimulus argument.

2.2 Input and the dynamic nature of linguistic knowledge

One of the limiting factors when one considers L2A is the idea of final attainment. Briefly I will draw on the notion of language attrition to exemplify the dynamic nature of language knowledge. The term refers to native language loss. Slabakova (2016:158-159) explains that "attrition research examines the potential erosion of native language competence after long exposure to another language." Obviously, it is a clear reference to a native speaker of a given L1, who will have little or very limited contact with his L1, for various reasons. Slabakova draws on several studies to make the following observations about language attrition:

- a. No adult speaker, who comes into contact with a second language and starts living in a new environment, is likely to forget the verb conjugations, the native sound contrasts, and how to ask questions in their L1. (KEIJZER, apud SLABAKOVA 2016:159)
- b. Changes in native grammars may be documented when potential attriters are compared to recent arrivals or native speakers in the country of origin. (GÜREL and YILMAZ, 2013; SORACE 2005, apud SLABAKOVA 2016:159)

The very fact that language attrition is a possibility, and is usually used to talk about adults, is indicative that exposure to input is a key element in the acquisition and maintenance of a language. It suggests that the knowledge of language is somehow dynamic, "feeding" on the exposure to input.

acquisition of the putative cluster. See Gallego (2011); Camacho (2016); Slabakova (2016) and references therein.

Studies on the Critical period for language acquisition also offer accounts on the role on input. Evidence from studies developed by Wartenburger et al (2003), Herschensohn (2007), and Montrul and Slabakova (2003) suggests that there is (i) a variability in what is considered successful final attainment depending on the context and input related to it; (ii) a possibility for a percentage of L2ers to perform within native speaker norms in some areas of grammar. Even heritage speakers who set out to become native speakers of the language spoken at home display L2 characteristics when their home language is not their dominant language. They tend to perform better in their home language in tasks that are contextually bound to home and family communication.¹⁴ The very concept of dominant language is connected to the idea of copious input. Continuous exposure to the input and use of L1 (or its absence) seem to affect the performance system to some extent. It is only fair that the same holds for L2.

2.3 Instructed L2 input

One needs to consider the real role of the input present in classroom English. Generally speaking, one can easily sketch the following assumptions and observations about the explicit L2 input:

(8)	
Instructed L2 input	Caveat
Modified	The modified input is meant to fit in the classroom setting. It may be a representative of language that does not occur in real life or is not useful in real communication.
Organized	The organization of the L2 input modifies it to facilitate comprehension. It also makes it unnatural because it is unlikely that real contexts will present the exact forms found in the ELT materials.
Progressively organized in difficulty (from "easy" to "difficult"	As discussed in section 2, the order of presumed difficulty in the presentation of the input is a "necessary evil." It will facilitate the presentation of certain items, and classify certain structures as "easy" or "difficult" based on a subjective complexity. The easy-to-difficult complexity is not always perceived as so by the brain, which might assign an incompatible mental representation to the "easy" structure.
Based on rules and conscious learning	L2ers "build mental grammars as a result of processing exemplars in the input" (SMITH & VANPATTEN, 2014:142). In other words, the learner's mind will assign representations to the language data because this is what the internal learning mechanisms is wired

(8)

¹⁴ See Slabakova, 2016:183.

	to do. The conscious learning of specific rules serve problem-solving needs that the learner has at the moment of the presentation or practice (distinguish between simple past/ simple present/ present perfect in an oral practice, written exercise or formal test, for example).
Positive and negative evidence	Positive evidence functions as input for the L2er's internal learning mechanisms. Negative feedback seems to have a positive impact in restructuring the L2 grammar. (SLABAKOVA, 2002)

At this point, one might think "what good is L2 instructed input" then? The chart above does not seem to show enough good reasons why it should be considered relevant. First, "there is a general consensus in the literature that instruction may speed up the acquisition of some surface aspects of language." (SMITH & VANPATTEN, 2014:143). Further, a better alternative that replaces the instructed L2 language learning setting has not come up yet, let alone an alternative for the materials that come along with it. Second, independently of how the language is presented, it is perceived by the human mind and its internal learning mechanisms as data to be assigned mental representations. And this is just what the human mind does. The overrated role of the progressively organized L2 input in this perspective is reduced to a minimum, and this is just what I meant to show. Put differently, all of the organized, modified, progressive, and rule-based L2 instructional approaches to language teaching are treated as input by the brain. The rest remains as problem-solving tasks.

3. Input in the bilingual context: some considerations

The bilingual education context has grown and developed substantially over the last two decades, specifically in São Paulo. Given the discussion above in terms of the role of input in the ELT context, it is only natural that one would ask what the role of input is in bilingual education contexts.¹⁵ In order to better contextualize the bilingual context, I will give a very brief account of bilingual education, so I can later narrow it down to a specific context I wish to capitalize on.¹⁶ Grosjean (1982) draws on Mackey (1972: 414) to summarize different views of what a bilingual school is:

¹⁵ I will be referring to bilingual contexts in which English is the language of instruction, since this is the language in which I have expertise; so I should keep to it. The premises treated here, however, are based on generative approaches to language acquisition and should be easily transferable or applicable to bilingual contexts involving other languages. ¹⁶ For a more detailed description of the contexts, see Megale, 2005; Paradis et al, 2011; and Marcelino, 2009.

Schools in the United Kingdom where half the school subjects are taught in English are called bilingual schools. Schools in Canada in which all subjects are taught in English to French-Canadian children are called bilingual schools. Schools in the Soviet Union in which all the subjects except Russian are taught in English are bilingual schools, as are schools in which some of the subjects are taught in Georgian and the rest in Russian. Schools in the United States where English is taught as a second language are called bilingual schools, as are parochial schools and even weekend ethnic schools... [Thus] the concept of "bilingual school" has been used without qualification to cover such a wide range of uses of two languages in education. (p. 213)

Considering the bilingual education context in São Paulo, a continuum can be easily devised on which nearly all the possibilities above can fit in. Before proceeding to the role of input, a few remarks are in order to lay the ground for discussion:

a) The complexity of defining 'bilingual education' is on a par with defining what a bilingual individual is. The characterization I draw on, when referring to a bilingual individual, is best captured by Haugen (1969) and Thiery (1978):

Bilingualism... may be of all degrees of accomplishment, but it is understood here to begin at the point where the speaker of one language can produce *complete, meaningful utterances* in the other language. From here it may proceed through all possible gradations up to the kind of skill that enables a person to pass as a native in more than one linguistic environment. (HAUGEN, 1969: 6–7)

A true bilingual is someone who is taken to be one of themselves by the members of two different linguistic communities, at roughly the same social and cultural level. (THIERY, 1978: 146)

The definitions of the two authors capture the notion of bilingualism along a continuum, accommodating a great variety of bilinguals, from the one who has limited L2 skills to the native-like type.

b) In the bilingual context, most of the debate seems to evolve around the approach, the pedagogical view of teaching and other issues pertaining to the area of Education. Although these are important issues, they will not be the focus here. The bilingual context does have a language other than the L1 in it, which calls for linguistic and acquisitional considerations.

- c) It is true that children are able to acquire a language by mere exposure to robust input in that given language. However, one needs to observe that in the Brazilian context the input that the children are exposed to may not be so 'robust' due to factors such as (i) amount of exposure (is it 30 minutes a day or four hours?); (ii) kind of contact (what is the purpose of the L2 at school? Singing songs and learning colors?¹⁷); (iii) lack of the essential linguistic data a child needs to build the grammar of his/her L2.¹⁸ It is a common belief that by simply using an L2 in any context will suffice to provide the child with the necessary linguistic information.¹⁹ However, this is not likely to be enough to guarantee they can use their abilities to the best effect. This limitation can be circumvented by the establishing of a solid linguistic program for language development that encompasses the pedagogical plan designed by the bilingual school.
- d) English should be used in the school premises if the child is to understand that it is the language of communication in that context. Further, the L2 has to be used as a means to develop knowledge and establish meaning. Put in other words, the L2 must be the language of instruction, not the object studied.
- e) In this article, I draw on the concept of "early consecutive bilingual" (MARCELINO, 2009) to refer to the child who is exposed to the English language from the ages 1 – 2 on, in a full immersion program.²⁰ Therefore, for discussion purposes, I will assume the context of a bilingual school in São Paulo which follows the full immersion program.

I understand that d) imposes a restrictive characteristic to bilingual education, in general. Nonetheless, this is justifiable on the grounds that the identity of bilingual schools in São Paulo is yet to be fully defined. I will further expand on this importance in the next section.

3.1 The importance of planning the L2 input in the Bilingual Context

¹⁷ Which might have an effect on pronunciation, at most.

¹⁸ In general, the bilingual education teachers are nonnative speakers. This is by no means a problem in itself. However, the teacher needs guidance and a solid linguistic program to be able to bring material and language that will be rich enough for the child.

¹⁹ Usually, this allows the children to comprehend the classroom L2 variety directed to them and answer in their L1. A most common situation found in bilingual schools in São Paulo.

²⁰ I will not develop on the different immersion programs, as it is outside the scope of this paper. From a generative perspective, input must be robust, thus the more time dedicated to it, the better. Whatever the program chosen by the bilingual school, the choice must be garrisoned in a solid argumentation built on a sturdy theory and literature. The choice cannot be random.

Pushing the discussion one step further, parents who send their children to bilingual schools do bear some expectation towards the level of English their children are going to attain throughout their stay at school. While this may not be a concern in a traditional Brazilian school, it becomes an issue in the bilingual contexts because of the L2. Most of the times, kids produce, at a very early stage, language which clearly shows that the grammar they are building is not English, although it does have English words. My concern is that they produce sentences that are representatives of the Portuguese language and its "properties²¹." This way, it would be like paraphrasing Portuguese with English words. "Have a bug here²²" (*tem um bicho aqui*) is an example of sentences that I have heard quite often. While most teachers may acknowledge the fact that the kid is using English, I argue that the sentence is not English; at least not with the intended meaning. This may be related to a number of factors:

- The kids are not exposed to English enough Most of the approaches used today in Bilingual Education derive from a pedagogy geared towards forming a citizen, teaching values and beliefs and respect for one another. Those are elements of major import, but total focus on them alone to the detriment of a linguistic program that pairs up with the whole school plan is a most unfortunate misuse of the child's capacity for language development.
- The children listen to English at school, but there is no planned focus on language development or the kind of input that the children receive. Input, thus, takes the form of unplanned use of language made in the classroom. This approach stands on the erroneous view that in a Brazilian bilingual education environment, directing whatever English input to the kid would suffice for L2 development. It is often argued that in the Brazilian bilingual context, the children can simply "learn" the L2 by doing things with it. Further, it will not present them with the necessary primary linguistic data to help them put their language making capacity to the best use. The learners might apply structures that bear a resemblance to those of their L1 but with L2 words, at best. In doing so, they are associating the supposed "English structures" to the L1 Parameters (linguistic properties). The result would be, inevitably, a kind of pidgin, or creole, which would require future remedial work. It is, therefore, essential that the language component be brought back into the loop in a systematized fashion. In

²¹ Or parameters, see introduction.

²² This structure in English is associated with the function of offering, "have a cup of tea." This was collected in a real situation at school, in which a 4-year-old used the sentence to suggest that the teacher inspect her head.

the Brazilian bilingual context, one cannot simply place reliance on the 'natural' modified L2 classroom input to do the acquisitional trick. More than that is needed.

• The bilingual environment contains a lot of Portuguese.

As shown in Grosjean (1982), different schools in different parts of the world use the term arbitrarily to classify schools that have any amount of L2 instruction along a very permissive continuum. This is not different in Brazil, where schools vary a great deal in the amount of English input directed to the children. As long as the exposure is structured, and based on the L2 parameters²³, this should not be a problem. But the desired parameter-trigging linguistic structures *and* the planning of the input are few and far between.

 English is not used around the school premises as a language for communication, but simply as "the classroom language."
 It is commonly believed that the main purpose of language is communication. On that note, it is socially important for the children to understand that the language they are exposed to is a real language, which can be used for its most primal objective: communication. Children "pick up" language they hear around them. It would make a lot more sense for children to realize that communication *does* happen in the L2 than to simply believe it to be a language associated with activities inside the classroom.

All of the above boils down to the amount and quality of input that the children are exposed to. Assuming an environment where all of the above is observed, the next section discusses linguistic aspects of bilingual education; namely, the linguistic planning of input in the bilingual context.

3.2 Planning the L2 input in the bilingual education environment

From an acquisitional perspective, children in preschool are at an optimal age for language development, considering their innate language making capacity is at its best. It is estimated that by the age of four, children will have attained the grammar of their L1, which must be accomplished in the presence of robust L1 input²⁴. By analogy, rich exposure to robust L2 input should, in principle, yield similar effects, even if it is not uniformly.²⁵

²³ Which should lead to the clustering effect, see introduction.

²⁴ Differently from the L2 input, the L1 input is present in the environment at all times.

²⁵ The individual differences have to be taken into account in an L2 acquisition environment. Some kids may relate more closely to one language than the other. The L2 nativelike attainment may take place in some areas, but not in others, depending on the children. Whatever the results, the chances of an L2 being acquired in accordance with the internal

Recall that a number of factors may influence the amount and quality of the L2 input offered to children, thus impacting the L2 acquisition in the bilingual context. At this age range, there is a theory-oriented possibility that children will acquire an L2 more naturally, under ideal exposure to the second language. The major point being emphasized here is not that it *has to* be natural²⁶, but that it *can* be natural, since all one needs to rely on is the natural innate capacity a child has to acquire any language at this age. So why waste this capacity with unplanned poor linguistic input?

Children in bilingual Education contexts will not use their most natural capacities for language development by simply listening to their teachers' modified input. At most, they should become proficient listeners in that variety of classroom input, while L2-initiated discourse is less likely to materialize. The use of L2 is usually restricted to formulaic language and language patterns, rather than natural language. From a strict generative acquisitional interpretation, the children in this context are exposed to their teachers' interlanguage as input. This input is not likely to contain all the primary linguistic data that would otherwise be available to an L1 learner. Thus, the acquisition process would be challenged. L2 acquisition studies on heritage speakers have reported that there are areas of the grammar that are most likely to be affected by reduced input. Morphology, complex syntax, semantics and discourse pragmatics are all areas in which heritage speakers have been found to display characteristics easily identified as nonnativelike. These findings come from the observation of the performance of bilingual speakers in reduced input conditions on a variety of linguistic properties (BENMAMOUN, MONTRUL, AND POLINSKY, 2013a, b; apud SLABAKOVA, 2016:163). In terms of heritage speakers, their performance is usually described as more competent in family-oriented household topics, while the more academic, formal aspects of their performance are compromised. Many heritage speakers are proficient in their (heritage) home language without ever learning to read or write consistently in it. The kind of bilingual brought into focus here is the one who has the opposite situation: their L2 is their language of instruction; therefore, their exposure to more academic formal registers is likely to be guaranteed. However, this is not the case in early years, when toddlers do not have access to academic and formal language. Further, the community in which they belong does not use the L2 for everyday communication, augmenting their L1 input, establishing it as the

language-developing mechanisms increase substantially, should proper input be provided to the child.

²⁶ I do not advocate that we should focus on 'obtaining' learners that conform to the 'perfect' parameters of an L2; I advocate that they have natural abilities favoring them, and that we should offer the best conditions for these abilities to grow naturally, independently of the results. The results are unlikely to be uniform, though, given the individual differences.

dominant language. At this point, I reinforce the need for a concrete language-oriented program to supplement the reduced input and offer the infants material for their internal language acquisition mechanisms to work on.

To push this argument further, a study on input quality and second language achievement in young children developed by Hassan & Narafshan (2016) investigated 40 children aged 4-5. The authors examined the impact of natural and instructional input on the L2 grammar knowledge of the children. Although the findings suggested that both natural and instructional input promoted the development of the target grammar, it supported the superiority of instructional input over natural input in promoting second language grammar achievement. This provides us with promising food for thought: our bilingual children are in an instructional-input-oriented environment, thus this environment should offer very rich L2 input.

By no means does this pose a problem to the whole Brazilian bilingual education "system." The establishing of a linguistic program for the teachers to follow is the way to add to the putative missing data in the L2 input. This program should contain input that is diverse, wide ranging, rich in registers, and communicatively meaningful (it has to play an important social role for the learner). This is why the L2 input needs to be used in order to help the learners obtain knowledge and raise their curiosity towards topics that interest them. However, this L2 input should also contain essential structures that define the grammar of the L2 the learner is exposed to. If we draw on the null subject parameter (NSP), a defining characteristic of English is that it is not a null subject language, and the learner must be exposed to this information. Put differently, a language which is negatively marked for the NSP contains expletives²⁷ with a phonetic matrix. The L2 input, or childdirected language, in bilingual contexts should contain this type of data, in addition to being socially and communicatively relevant, meaningful and diverse. It should also contain information, for instance, that will help the infant develop the linguistic property which will result in the structures presented in (7), connected to the Compounding Parameter. It has been argued that the N+N structure may function as a trigger to the cluster of structures in $(7)^{28}$, much in the same way that the expletive does the trick for English-type languages.

²⁷ An expletive is a pronoun which contains no refent in the real world, e.g. '*it*' in <u>it</u> rains. English-type languages will present a "pronounced pronoun" in the position occupied by an expletive. A language like BP does not have a phonetic matrix for this pronoun: \emptyset chove. ²⁸ See Snyder (1995, 2001) and Marcelino (2007, 2014, 2017) and references therein.

4. Final remarks

In this paper, I capitalize on the role of input in L2A, from a generative perspective. I draw on the term L2 here to refer to the development of an L2 as a result of the internal learning mechanisms that every learner has. The consideration brought to the table in this discussion was not the teaching of the language, but the reception of the data present in the learner-directed language, which will be assigned a mental representation by the human mind. I briefly approached input issues in the L2A of English by both adults in instructed learning settings and children in bilingual education contexts. The intersection between these two groups is just the human mind assigning mental representations to the data made available to the L2 learners.

In terms of adult L2A, I argued that the organization of the explicit input directed to adults seems irrelevant, given that it will be "unconsciously" mental representations by the human mind, yielding assigned an interlanguage state. This interlanguage does not necessarily correspond to the neatly planned, progressively organized explicit L2 input found in textbooks and brought into focus in the classroom settings. I also pointed out that the resulting interlanguage also displays characteristics of the target language that have not been presented in the L2 language input geared towards learners. I drew on previous studies (MARCELINO, 2007, 2017) to exemplify the L2 acquisition of the cluster of structures associated with the Compounding Parameter (CP) in L2 (see (7) in section 2.1). The study showed a gradual acquisition of five CP-related structures, neither of which had been the focus of explicit instructed language learning, constituting a classical knowledge-in-the-absence-of-instruction argument, and corroborating that even in L2, the learner's knowledge surpasses what is taught.

As for a more naturalistic kind of input, present in bilingual education contexts, I argued that the approaches to dealing with the L2 in these environments rely too much on the child's capacity for language development. It is a common belief that children will simply 'pick up' the L2 if they are exposed to it. Observation of the performance of young bilinguals in the bilingual education contexts says otherwise, though. A better planning of the input to be presented to young children is in order.

The ideal bilingual program should include a language program that receives as much importance as the pedagogical planning. Ideally, they should not be seen separately. It is time we understood that the linguistic environment in which the kids learn English is very different from the one found in a traditional Brazilian school, where we do not have to worry about whether or not our kids will learn Portuguese.

In the L2A process, not all of the conditions are optimal. Recall that the young children are at their best moment for language acquisition. A child exposed to scanty L2 input *might* end up developing a language that resembles English, but is not English.

Robust and rich input that supplements the classroom language must be provided in the bilingual education context to allow the bilingual children to put their best acquisitional capacities to good use. I do not mean to advocate that an L2 is not developing unless it is as perfect as it can be. This would be a setback considering the Globalized world as it is, and the role of the English language in this panorama. However, I do believe that it is the school's duty to present kids with the best possible material from which they can build their knowledge. Depriving the children in the Bilingual Education context from the best exposure to rich input is the same as not allowing them to put their most natural abilities in language development to their own advantage.

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