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Fachbereich: Neuere Philologien
Betreuung: Prof. Dr. Esther Rinke und Dr. Cristina Flores

Masterarbeit

The acquisition of adjectives and their position in monolingual and bilingual children

Patricia Mourão Cartaxo
Matrikelnummer: 6983943
E-Mail: pcartaxo@gmx.de

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1. Introduction

Adjectives are an important part of our daily vocabulary although it is less used than verbs or nouns, for example. Cardinaletti & Giusti (2010:67) show for the LIP corpus of spoken Italian (containing 489,178 words and consisting of five different types of conversation) that adjectives occurred with a frequency of 9.47% and are the least frequent lexical category. This may be one possible explanation for the few studies that have been developed about the adjectival ordering in the acquisition of German or Romance until today. However, this grammatical phenomenon seems to be interesting, especially in Romance because the position of the adjective can differ. The adjectives can occur in pre- or postnominal position, while in other languages only one position is possible. It is even more complex: some adjectives in Romance languages can only occur prenominal, others can only appear postnominally and some adjectives are flexible in their position. However, some of these flexible adjectives change their meaning depending on their position. The nature and frequency of this possible positions depends on the acquired Romance language.

In the following I want to focus on heritage speakers of Portuguese. Therefore, a heritage speaker of Portuguese who grew up in Germany must learn that German only allows prenominal adjectives, while Portuguese permits both pre- and postnominal adjectives. This may lead to some problems, because, according to before developed researches, bilingual's two languages may influence each other (Hulk & Müller (2000), Müller und Hulk (2001)). The direction of influence may differ from phenomenon to phenomenon and is determined by computational complexity. In addition, the input may also play an important role for bilingual children. Some authors defend that the input frequency influences the developmental path and the lexical knowledge (Flores/Correia (2017)). In consequence, the performance of bilingual children regarding the use of adjectives should differ. In order to verify if bilingual children have more problems than monolingual children, I developed the following thesis. The aim of this thesis is to describe how adjectives and their position are acquired by bilingual children, more concretely, by heritage speakers of Portuguese. Apart from this, I want to show how bilinguals performed in contrast to monolinguals regarding adjectives in their position in Portuguese. However, this concrete study could not be executed due to the pandemic. Nevertheless, I developed a pilot study with bilingual children with the same research questions. In order to analyse the

mentioned aspects, I will start to explain how the grammatical phenomenon of Portuguese adjectives and their position works. Therefore, I will start to explain how adjectives can be categorized by their function and by their position. In addition, I will mention certain factors that determine the position of adjectives. Secondly, I will explain what the difference between monolinguals and bilinguals is and which types of bilinguals exist. Then, I will explain how adjectives are acquired by monolinguals and how they are acquired by bilinguals based on studies that have been done before. In addition, I will present the role of dominance, of cross-linguistic influence and input as factors which determine the linguistic competence and may therefore explain variation in the performance of the heritage speakers. Finally, I will present the results of my pilot study which aim it was to show how heritage speakers of Portuguese dominate Portuguese adjectives and their position. The study demonstrated that bilinguals do perform well in general. A preference for prenominal position could not be confirmed, rather the opposite was found: bilinguals tend to prefer the postnominal position in flexible adjectives when the prenominal would also be correct. Moreover, the analysed children showed a big variation regarding their performance of flexible adjectives which change their meaning depending on their position.

2. The grammatical phenomenon: portuguese adjectives

Cunha e Cintra's grammar (2006:181) describes adjectives as a "[...] modificador do substantivo" whose function it is:

- (1) Caracterizar os seres, os objectos [sic!] ou as noções nomeadas pelo substantivo, indicando-lhes: a) a uma qualidade ou defeito, [...], o modo de ser [...], c) o aspecto [sic!] ou aparência [...], d) o estado [...].
- (2) Estabelecer com o substantivo uma relação de tempo, de espaço, de matéria, de finalidade, de propriedade, de procedência, etc. [...]

This definition fits for the majority of adjectives but certain adjectives like *falso* have been omitted, because they do not consider in their definition that some adjectives can change the actual meaning of a word. Other authors, like Vázquez Cuesta (1989) or Gonzaga (2013) do not define adjectives at all. Bechara (2001:142) claims that the adjective is: "[...] a classe de lexema que se caracteriza por constituir a delimitação, isto é, por caracterizar as possibilidades designativas do substantivo, orientando delimitativamente a referência a uma parte ou a um aspecto do denotado". This author

makes clear that when it comes to defining adjectives, there may be certain overlaps at the semantic level with nouns. Da Silva (2008:134) suggests that adjectives correspond to a part of speech whose aim it is to describe the noun to which they refer to, in more detail or to provide it with a certain characteristic. She affirms that adjectives can appear in an attributive syntactic function, where the adjective modifies the noun: *uma mulher loira*, or in a predicative syntactic function, where the adjective can be a predicative of the subject: *Esta mulher é loira* or object: *Ele deixou a sua filha alegre* and occur in copulative phrases. This definition seems to be more general, thus it incorporates more groups of adjectives. It should be emphasized that across languages adjectives typically express these two functions mentioned above. Romance adjectives in a predicative function occur postnominally, while adjectives in an attributive function may occur prepended or postpositive to the noun.

Considering all these definitions, it can be concluded that it is not that easy to find a definition which incorporates all types of adjectives, which I will present in the following paragraph. Moreover, describing adjectives in general or certain types of them seem to be a challenge.

2.1 Subtypes of adjectives

According to Mendes et al. (2013), attributive adjectives are divided into different groups in order to represent their function clearly.

Attributive adjectives reveal new properties of the noun that are normally not inherent. Therefore, they represent new information and restrict the noun, such as in the following example:

(1) Um adulto imaturo

Normally, adults are assumed to be mature; therefore, if someone is portrayed as an immature adult, the given information is contradicting. By using this adjective, the adult is shown to be a childlike person. Thus, this class of adults is restricted to immature adults.

In comparison, the denotative adjectives reflect inherent characteristics of the noun and still restrict the noun. The adjectives are divided into two big groups which differ in their semantic and syntactic properties: On the one hand, qualifying adjectives which are used to describe beings or things (example 2), and on the other hand, relational adjectives which express a relation between two entities, that can be connected etymologically (example 3):

(2) Uma mesa redonda

(3) Uma praia fluvial

In addition, there are two more groups, the group of evaluative adjectives (example 4) and the group of intensional adjectives (example 5). The first group does not restrict adjectives because they add a subjective evaluation. Therefore, the adjective does not represent constitutive information about the noun. An intensional adjective precludes the noun that it modifies from belonging to the set of nouns (Mendes et al. 2013: 1085ff).

(4) Uma blusa bonita

(5) O falso acusado

In the following chapters the relevant categories of adjectives for my study will be explained in more detail and their position will be taken into account. In addition, I will present the determining factors for each possible position of portuguese adjectives. I want to clarify that some adjectives may appear in different groups because the combination with the noun can lead to a different meaning or function of the adjective.

2.2 Adjectives in postnominal position

A large part of portuguese adjectives occur postnominally. In this chapter I will present one group of the postnominal adjectives.

2.2.1 Relational adjectives

These adjectives establish a relation between two directions. The first direction corresponds to the sense of the noun from which the adjective can be derived or to the etymological relation. The second direction describes how the noun has been modified by the adjective. This relation depends on the sense of the noun, the adjective and on our knowledge of combining different word dimensions, like in the following examples.

(6) a vida noturna

(7) a vida rural

(8) a vida urbana

Every example above is about life, but it addresses life in different circumstances. The first one is about night life, the second one about rural life and the last one about urban life, so the noun *life* is modified in subtypes depending on the relation with the adjective. If one takes the example (6), the first direction corresponds to the life during

the night in opposition to the day life. The second direction would correspond to the restriction of the noun (life only during the night) provoked by the adjective.

In these examples, relational adjectives occur normally in the postnominal position. Their function is not to evaluate so they cannot appear in the prenominal position in general (Mendes et al. 2013: 1095).

(9) * *semanal jornal*

(10) *jornal semanal*

Some of these adjectives may seem to be qualifying adjectives because they represent typical properties that are extremely connected in the minds of the speakers.

(11) *igreja barroca*

In this example, we have a connecting relational adjective. The mentioned church was constructed during the baroque period. Therefore, it describes the church in more detail. However, in *gesto barroco*, *barroco* describes a property of someone who is extravagant in his behaviour. The combination of different nouns with the same adjective can lead to different meanings. First the baroque period is mentioned to describe a non-animate reference, while in the second example *barroco* means extravagant and describes an animate reference. (Mendes et al. 2013: 1095).

Therefore, certain constructions, like *artigo barroco* can be misunderstood because of their ambiguity. This ambiguity can be caused by the polysemy of the adjective, which can be a qualifying or relational adjective and can therefore describe a property or an ensemble of properties (Demonte 1999: 161). In this example, *barroco* could describe an article that was written in the baroque period, on the one hand and on the other hand, it could also describe an absurd article. In these cases, certain relational adjectives can appear in the prenominal position to avoid misunderstanding and to emphasize the opinion of the speaker who is not presenting a fact (Mendes et al: ebd.).

(12) *Ela entregou um baroco artigo.*

In addition, a noun can occur in the combination of a relational and a qualifying adjective. In this case the relational adjective occurs directly behind the noun followed by the qualifying adjective.

(13) * *As eleições antigas municipais*

(14) *As eleições municipais antigas*

As it can be seen in this example relational adjectives do not permit that another constituent interferes between the adjective and the noun.

Furthermore, a noun may also occur in a combination of two different relational adjectives.

(15) uma ordem religiosa cristã

In this example, the first adjective, *religiosa*, classifies the noun, *ordem*, and the second one, *cristã*, classifies the subtype of existing *ordens religiosas* that emerged in the combination of the noun and the first adjective (ebd).

Relational adjectives can also transform into argumentative adjectives when they appear in combination with deverbal nouns. That means that the adjective corresponds to a subject, like in the examples below.

(16) a preocupação maternal (A preocupação das mães)

(17) a ocupação portuguesa do Brasil (A ocupação do Brasil pelos portugueses)

In the first example, *maternal* corresponds to the noun *mums*, thus the concerns of mums are mentioned. In the second one, *portuguese* corresponds to the people from Portugal, so the occupation of Brazil by the Portuguese is mentioned.

In comparison to qualifying adjectives, relational adjectives are non-gradable adjectives, therefore they cannot be modified to have a stronger or weaker meaning (Eliseu 2008:123).

(18) * A rapariga é muito/ pouco alemã.

As I said before, relational adjectives always appear after the noun in a nominal syntagma which is caused by the morphological relation which exists between the noun and the relational adjective. In concrete, this means that elements of Romance languages which join the nucleus are positioned on the right side like in *sol matinal* or *sofá cama*. Another reason for the fact that relational adjectives follow the nouns is linked with a semantic aspect. The function of these adjectives is to classify the noun and this function leads to postpositive adjectives (Demonte 1999:182). Last but not least, relational adjectives are intrinsically restrictive, according to Ramaglia (2008). Therefore, they can only occur postnominally.

2.3 Adjectives in prenominal position

In comparison to German adjectives which occur prenominal, Portuguese ones do not appear in this position normally. However, one small group, the intensional adjectives which will be explained below, do appear in this position.

2.3.1 Intensional adjectives

First of all, these adjectives do not restrict or indicate properties of a noun.

They occur in prenominal position and cannot be interpreted as part of entities because they deny the actual word meaning, so, if someone has been considered as guilty, normally he cannot be the wrong culprit. In consequence, their function is to attribute a certain personal evaluation about the applicability of the noun.

(19) o suposto culpado

(20) o falso culpado

In the first example, the speaker leaves it open as to whether the man is guilty or not. Consequently, the applicability of the noun is put into question.

In the second example, the sense of the noun is denied because the speaker points out that he is not the guilty one. In this case, the applicability of the noun is not put into question but is rejected instead (Mendes et al.: Bd.2,1388ff).

In consequence, these adjectives are not related to the extension of the names, but only to their intention, that is, to the concept they allude to. So, the main goal of these adjectives is to negate the meaning of the noun (De Almeida Ferreira 2012: 78/ Pastor 2016 :373). According to Waugh (1976), the intrinsic meaning of the adjective does not change but the adjective directly changes the notional content of the noun. Therefore, it appears prepended. Demonte (1999) shares the same idea proposing that prepended adjectives modify the intension of the noun and postpositive adjectives modify their referent (De Almeida Ferreira 2012: 78).

2.4 Flexible adjectives

A lot of Portuguese adjectives may occur in prenominal or postnominal position depending on the goal of the speaker. Some of these adjectives even change their actual meaning depending on their position. In the following I will present them.

2.4.1 Qualifying adjectives

This type of adjectives attributes properties or qualification in several dimensions depending on the noun. There are a lot of different dimensions: material, physical, functional, psychological, moral and social etc. constitutions. There are two groups

that clarify these dimensions: On the one hand, adjectives of material nature and on the other hand adjectives that describe physiological, psychological, moral or social states (Mendes et al. 2013: 1087f/ da Silva 2008: 136).

- Adjectives of material nature¹
- Adjectives of spacial dimension: alto, baixo, comprido, enorme, estreito, grande, largo, longo, pequeno
- Adjectives relating to velocity: lento, rápido, vagaroso, veloz
- Weight adjectives: leve, ligeiro, pesado
- Flavour adjectives: ácido, amargo, doce, salgado
- Cooking adjectives: assado, cozido, estrelado, frito
- Tactile and texture adjectives: áspero, duro, espesso, fino, grosso, maciço, rugoso, sedoso, suave, viscoso
- Smell adjectives: acre, fétido, cheiroso, malcheiroso
- Temperature adjectives: escaldante, frio, fresco, morno, quente, tépido
- Sound adjectives: agudo, alto, baixo, grave
- Colour adjectives: amarelo, azul, preto, vermelho, verde etc.
- Form adjectives: côncavo, convexo, direito, oval, quadrado, quadrangular, redondo, triangular
- Age adjectives: antigo, jovem, moderno, novo, recente, velho
- Adjectives of physiological, psychological, moral or social states
- Physiological states: bêbado, descansado, cansado, doente, estafado, fatigado, maldisposto, tonto
- Mental state and behaviour: alegre, arrogante, atuto, autoritário, calmo, comilão, esperto, firme, imbecil, inteligente, nervoso, preguiçoso, relaxado, simples, trabalhador, triste
- Social states: casado, culpado, divorciado, ilegal, inocente, legal, solteiro

It is important to mention that sometimes adjectives of other dimensions may be used to describe other areas for which there are no adjectives in the language. For example, *duradouro* may be used in *discussão duradoura* although this adjective is usually used to describe things and not behaviours (Mendes et al. 2013: 1089).

Furthermore, these types of adjectives are considered to be gradable adjectives.

¹ This classification corresponds to the classification of Mendes et al. 2013: 1088ff.

(21) A mulher está muito bonita.

(22) A mulher é lindíssima.

(23) A mulher não é bonitíssima.

As the examples show, these kinds of adjectives can be modified, intensified (examples 21 or 22) or abated (example 23), by placing one or more adverbs in front of them, like *muito*, in example 21 or by using the superlative, like in the example 22 (Eliseu 2008: 123). When adjectives are gradable, the postnominal position is obligatory. Nevertheless, some of these adjectives can also occur in prenominal position. In a definite nominal syntagma, the prenominal adjective changes the syntagma in a non-restrictive way. This means, that the adjective does not determine or restrict the syntagma. Instead it only qualifies the noun. That is the reason for the change of meanings of certain qualifying adjectives depending on their position (García Sánchez 2015: 47):

(24) O Pedro é um homem grande.

(25) O Pedro é um grande homem.

In the first example, Pedro, is described as a tall man while the second example does not refer to his size, but to his attitudes. He is considered a great man because he has done something praiseworthy.

It is also important to mention, that not every qualifying adjective is that flexible regarding its position. Colour adjectives and form adjectives, for example, are always positioned after the noun.

(26) A flor roxa está murcha.

(27) Olhos azul-claros

(28) Um carro acastanhado

(29) Um presente retangular

(30) A bola redonda

These types of adjectives can only appear postpositive because they restrict the noun. The flower mentioned in example (26), for instance, is the relevant one. In consequence, these adjectives give some further information about the noun in order to differentiate them from others which might be the same.

2.4.2 Mode adjectives

A lot of these adjectives are qualifying adjectives that denote properties of objects and human beings but are reinterpreted when they modify event nouns. By combining a qualifying adjective with an event noun, the result may be a metaphorical sense.

(31) uma conversa doce

This sentence does not mean that the conversation was full of chocolate in order to be sweet, but that lovely words were expressed.

The most frequently used qualifying adjectives are the following:

- Adjectives relating to temperature (quente, gelado)
- Velocity adjectives (rápido, lento)
- Weight adjectives (leve, pesado)
- Adjectives that describe mental attitudes and behaviours (amoroso, antipático)
- Flavour or tactile adjectives (doce, salgado, áspero)

In addition, it is important that although the adjectives modify the event noun, the denoted properties do not refer to the noun, but to the participant of the noun.

(32) uma palavra amarga

This example clarifies that it is not only the word which is bitter, but also the person who expressed the utterance by using unfriendly words.

Moreover, these adjectives may appear in different positions, which does not mean that the reading is restrictive or non-restrictive. In fact, it concerns an individual writing style or a more subjective perspective in the prenominal position, which occurs especially when describing mental attitudes or behaviours. (ebd.: Bd.2 ,1405f).

2.4.3 Adjectives relating to duration

This group contains various types of adjectives, for example velocity, age or space adjectives.

(33) Uma visita rápida

(34) Uma discussão infinita

(35) uma amiga velha

(36) uma velha amiga

(37) uma mulher velha

(38) uma velha mulher

(39) uma prima velha

(40) uma velha prima

In example (33), a velocity adjective was used to describe that the visit was not long. In the next example, a space adjective has been chosen to describe a never-ending discussion. The next two examples are important, because on the one hand in example (35), a person is characterised by her age and on the other hand the duration of a relationship is characterized in example (36). This means that in example (35) they are talking about an old woman, while in example (36) the friendship is characterized, thus the subjects knew each other for a long time. This particularity of ambiguity only works for nouns that are related to a relationship. Therefore, there is no difference between examples (37) and (38), or examples (39) and (40). However it is important to mention that these adjectives in a prenominal position have an affective component. Although family relationships are demonstrated in the last two examples, there is no possible adverbial reading, like in example (40) (Ebd.: Bd. 2, 1406ff).

Finally, other adjectives, *antigo*, for instance, assume a temporal function in prenominal position (example 41) and attributes a property of a noun in postnominal position, like qualifying adjectives do, in this case someone with old-fashioned ideas (example 42). Therefore, the meaning in each position varies.

(41) O antigo gerente

(42) O gerente antigo

To sum up, adjectives that relate to duration can occur in prenominal and postnominal position. This can be explained by the existence of restrictive and non-restrictive adjectives. According to (Bello 1847:47) the adjective can change the noun in two ways: “O agregando a la significación del sustantivo algo que necesaria o naturalmente no está comprendido en ella, o desenvolvendo, sacando de su significación algo de lo que en ella se comprende.” If the adjective provides some further information about the noun, it is considered to be a restrictive adjective, which occurs in postnominal position, while the non-restrictive adjective in prenominal position only provides information about a certain aspect of the noun (Demonte 1999: 146).

2.4.4 Adjectives relating to temporal location

As the group above, these adjectives are composed by adjectives of different areas. Their interpretation differs from the reference time: either the reference time happens

in this exact moment or in an introduced moment. In the first case, adjectives are temporally deictic (example 43), while in the second one they are anaphoric (44).

(43) Ele perguntou-me a semana *passada* se queria jantar com ele mas eu só lhe vou responder na *próxima* segunda-feira porque no **presente** momento estou ocupada.

(44) Em 2010, ouvi dizer que a minha escritora favorita ia publicar um livro, tal como o meu escritor favorito no mês *anterior*, a sua publicação foi *posterior* à do meu escritor favorito, mas **concomitante** à da minha escritora favorita.

It is impossible to use deictic postnominal adjectives instead of anaphoric prenominal ones and vice-versa, like the examples below demonstrate (Ebd.: Bd.2, 1409):

(45) * Queres estudar comigo na semana *posterior*? *Instead of:*
Queres estudar comigo na próxima semana?

(46) * No ano *passado* a 2019 *Instead of:*
No ano anterior a 2019

Moreover, only anaphorical adjectives can appear in predicative functions. This happens when the phrase contains a complement that introduces a referent time.

(47) A publicação deste artigo é *posterior a 2010*.

In this example, the referent time is 2010 and therefore an anaphoric adjective may occur.

In the end, some adjectives like *anterior* and *seguinte* show a different semantical restriction in predicative function, depending on the article.

(48) **Uma** reunião *anterior* à aprovação do projeto

(49) **A** reunião *anterior* à aprovação do projeto

(50) **A** reunião foi *anterior* à aprovação do projeto

(ebd.: Bd.2, 1410)

In all the examples the meeting happens before the approval but in example (48) and (50) it is unclear if it is the first, second, third etc. meeting. In contrast, in example (49), the definite article makes clear that it is the last meeting before the approval. Even with the use of a definite article in example (50), it is unclear if it is the last or penultimate meeting. To make it clear, a definite article before *anterior* would be necessary (ebd.:1410f).

To sum up, all presented examples, apart from *próximo* appeared after the noun. This is the case because none of the presented adjectives is gradable. Gradable adjectives do appear in postnominal position and are combined with nouns which denote periods of time. In contrast, *próximo*, can only occur in prenominal position. This can be explained by the fact that *próximo* normally has a spacial meaning in postnominal position. In prenominal position *próximo* corresponds to *perto* and usually appears in combination with a complement like, *a próxima rua*, for instance (Demonte 1999: 208).

Other temporal adjectives like *atual* can appear before or after the noun depending on the noun without changing its meaning (Borillo 2001 :42)

(51) O atual presidente é espanhol.

(52) O presidente atual é espanhol.

It is important to mention that these adjectives can only be considered as qualifying adjectives in postnominal position.

Finally, other adjectives, like *recente*, can appear before or after the noun without changing their meaning.

(53) O recente jogador marcou um golo.

(54) O jogador recente marcou um golo.

(De Almeida Ferreira 2012: 138f)

2.4.5 Adjectives relating to location space

These adjectives localize certain concrete or abstract entities, depending on the referent's place and some of them may be equal to the adjectives that refer to temporal location. As the previous group, they can be divided into deictic and anaphoric adjectives. Deictic means that the referent's place corresponds to the place where the speaker is, while anaphoric means that the referent's place is introduced by complementary information, like in example (56), where the referent's zone is "our zone".

(55) A minha casa fica na próxima rua.

(56) Esta casa fica distante da nossa zona.

Furthermore, the adjectives *anterior* and *seguinte* share the same characteristics as those in the previous group.

(57) Uma farmácia anterior à padaria

(58) A farmácia anterior à padaria

(59) A farmácia onde comprei estes comprimidos é anterior à padaria.

In the first and last examples, it is not obvious whether the pharmacy is located directly before the bakery or if it is just one of the pharmacies close to the bakery but not necessarily the closest to the bakery. The use of the definite article, in example (58), points out that it is the one before the bakery. Therefore, the information in this example is more explicit.

Finally, there is one detail regarding the adjective *próximo*. This adjective can have different interpretations depending on its position.

(60) a minha prima próxima

(61) a minha próxima prima

While in the second example, the next cousin to be born is mentioned, a close cousin is related in the first one (Mendes et al. 2013. Bd.2.1411f).

To conclude, some adjectives, like *próximo*, lose their circumstantial meaning when they appear postnominally. In this position they can be classified as qualifying adjectives which denote a certain property.

In general, the most important aspect in order to know the position of adjectives relating to space, is to know if the adjective situates the reference of the noun in relation to the moment of act (deictic) or if it refers to something that happened before (anaphoric). As the example (57) and (58) show, anaphoric adjectives occur after the noun, while deictic ones (example 55) occur before the noun (De Almeida Ferreira 2012: 230f).

2.4.5 Evaluative adjectives

As it is clear from the notion itself, that evaluative adjectives do not share information about a certain property but mark a certain opinion or evaluation. Therefore, the interpretation is not restrictive, and the goal of evaluative adjectives is to emphasize a certain characteristic of the noun.

Almost every noun can be modified by an evaluative adjective (*casa magnífica, flor magnífica, homem magnífico, poema magnífico, trabalho magnífico etc.*). But what is the exact difference between examples (62) and (63)?

(62) as crianças magníficas

(63) as magníficas crianças

In the first example, an intersection between *crianças* and *seres magníficos* can be found. Thus, this group of *seres magníficos* is restricted from other beings which are not characterized as *magníficos*. In the second example, *crianças* has been included in the notion of *seres magníficos*. Therefore, this example only relates to a part of the group of the fantastic beings, in this case, the children (Rio-Torto 2006:107)

As shown above, these adjectives occur normally in prenominal position. However, they can also appear in postnominal position depending on the nominal syntagma.

(64) # Hoje vou usar a saia fantástica.

(65) Hoje vou usar a fantástica saia.

(66) # Hoje vou usar a saia azul fantástica.

(67) Hoje vou usar a fantástica saia azul.

(68) Hoje vou usar uma saia fantástica.

(69) Hoje vou usar uma saia azul fantástica.

In the definite nominal syntagma, the adjective cannot occur in the postnominal position (example 64). It is not ungrammatical, but it may sound weird for native speakers. The best option is to use the evaluative adjective in the prenominal position (example 65), even if it is combined with a qualifying adjective, as in example (67). According to Demonte (2005), the reason for this is that the adjectives in postnominal positions of definite nominal syntagma are restrictive, but as mentioned before, this type of adjectives cannot be restrictive and therefore they do not appear in this position.

But in case of an indefinite nominal syntagma the adjectives should maintain the postnominal positions, as shown in the last two examples (68) and (69) (Mendes et al. 2013.: Bd.2, 1387f).

2.5 Determining factors

As it was attempted to show in the previous chapters, there are diverse factors which influence the position of an adjective. These factors belong to different linguistic fields: semantics, prosody/phonetic, syntax, among others. Some of them are more important than others in order to explain the different positions. The most important factors are the semantic ones, followed by the syntactical ones, the phraseological ones and, last but not least, the phonetic/prosodic factors. Therefore, I want to start this chapter with the less relevant factors and end with the most relevant ones.

In regard to prosodic and phonetical aspects, BuĎa (2017) conducted a corpus analysis and suggested that the postposition is especially used with paroxytone and monosyllabic substantives (*lá- pis, re-vól-ver*), while the anteposition occurs primarily with oxytone disyllabic substantives (*a-mor, ar- roz*). The author suggests that this happens in order to avoid two following tonic syllables. Normally tonic syllables attract atonic syllables. In general, people try to avoid the same sonic group: *audaz capitão* instead of *capitão audaz* (ebd.: 229ff). Finally, some syntactic aspects may interfere in the position of the adjective. More concretely, the presence of a complement (example 70), a comparative expression (example 71) or certain quantifiers (example 72) prohibit the anteposition (ebd. 231f).

(70) Uma mulher contente pela visita de uma amiga. / * Uma contente mulher pela visita de uma amiga.

(71) Uma criança tão forte como um elefante. / * Uma tão forte criança como um elefante.

(72) um copo cheio de água. / * um cheio de água copo.

Another important factor which is described by Serra (2005) is that the likelihood of the adjective occurring in the prenominal position increases with the fact that the adjective is shorter than the noun. This may be the case in examples such as, *boa tarde* or *má mulher*, but it is not a general rule.

Phraseological aspects also have an impact on the order of an adjective in a nominal syntagma. BuĎa (2005) assumes that prenominal qualifying adjectives combined with a substantive can form a *grupo fraselógico tópico*. This means that this combination is equivalent to fixed phrase with a meaning, not to an idiomatic expression but an expression itself, like in *doce paz*, which would mean solemnly peace. It would be ungrammatical to place the adjective after the noun. This can be explained by the function of expression of certain adjectives in combination with certain substantives, on the one hand, and on the other hand by phonological reason (it is not possible to juxtapose tonic syllables). Thus, making it clear, that there is often not only one reason for a certain position but an ensemble of different factors which influence the position of the adjective.

Another main aspect is the syntactical one and associated with it the function (predicative or attributive) of the nominal syntagma and its relationship with the noun. Given that a predicative function comes after a linking verb, the normal position of

adjectives is in postnominal position (example 73 and 74), while the adjective in attributive function may appear before or after the noun (example 75 and 76).

(73) O Artur é simpático.

(74) O tigre é feroz.

(75) Maria é uma grande mulher.

(76) O tigre feroz fugiu.

As can be seen from the examples, the adjective is an attribute of the noun it is directly linked to it, while in a predicative function a linking verb is placed between the noun and adjective.

Another syntactical fact that influences the position of the adjective is the type of nominal syntagma; more precisely, if it is a definite or indefinite nominal syntagma.

In indefinite syntagma, adjectives usually appear in postnominal position: *uma mulher querida*, while in definite syntagma the position changes, *a bonita mulher* or *mulher bonita*. Most of Portuguese adjectives which occur in the postnominal position lead to a restrictive interpretation. That is the reason for their importance when it comes to identifying the referent in a definite nominal syntagma.

(77) O rapaz desenhou as árvores verdes.

In this example, the boy painted the green trees, so he drew all of the green trees and not the yellow ones.

In contrast, in the indefinite nominal syntagma, these adjectives mark the type of entity, but they do not contribute to the identification of the referent.

(78) O rapaz desenhou uma árvore verde.

This example shows that it is unclear which green tree the boy drew, although it is obvious that he painted a green, and not a yellow one (Mendes et al. 2013: 1089f).

The most common reason for explaining the variety in the position of Portuguese adjectives (among others), are semantic factors. First of all, it is useful to consider the observation made by Jan BuĎa (2017). The first semantic mentioned aspect is a parallelism between the prenominal position and the inherence, and between the postnominal position and the transience. The verb *ser* expresses inherence and is used in a predicative function, while the verb *estar* expresses transience.

(79) O chá está quente - O chá quente

(80) *O chá é quente - * O quente chá

(81) O quente casaco/ (O casaco quente) - O casaco é quente, * o casaco está quente

The examples above show that the prenominal position is used in non-transitory cases (81) and the postnominal position is used in transitory cases (79) (BuĎa 2017:226).

Another important semantic aspect which has already been mentioned is the existence of restrictive and non-restrictive adjectives. Restrictive adjectives are adjectives in postnominal position which function it is to restrict characteristics or senses that the substantive may have. In contrast, non-restrictive adjectives are placed before the noun and do not establish any restriction.

(82) a tulipa vermelha

(83) má decis3o

The presented characteristic (red) in example (82) restricts the set of tulips to those tulips that are red. In example (83), there is no restriction to a subtype of decisions, but the decision is described to be a bad one.

As mentioned before, some adjectives can occur in both positions:

(84) Um oficial alto

(85) Um alto oficial

The different positions of adjectives lead to different interpretations of the respective noun phrase, as can be seen in the examples above. In both examples the adjective *alto* (Engl. *tall*), is used, but in the postnominal position it refers to someone's size, while in the prenominal position it refers to someone's height. Zdenĕk Hampl (1972) divides adjectives in prenominal position into two groups: First, the group of adjectives which do not suffer from an alteration in their meaning in the prenominal position, like *numeroso*. The other group of the presented adjectives can suffer from a change of meaning in combination with certain nouns, like *velho*. *Um carro velho* and *um velho carro* have the same meaning but *um velho amigo* and *um amigo velho* have different meanings. In the first example, *velho* is used to describe the friendship as a long one, while in the second example the speaker's friend is described as old. The second group presented is where the meaning is changed because of the different position of the adjective, like *simples*, *alto* or *grande*. These adjectives do not have a restrictive interpretation by occurring before the noun.

In other cases, the prenominal or the postnominal position of adjectives correlates with a specific or an unspecific interpretation. As the Real Academia Espaolola (2010:256) shows, some adjectives in postnominal position can have both a specific and an unspecific reading:

(86) Todos los estudiantes de la clase habían leído una novela famosa.

This example would also work for Portuguese (Prtgs. *Todos os estudantes da turma tinham lido uma novela famosa*) and it makes it clear that two different interpretations of this example are possible: Every student reads a different novel (unspecified interpretation) or each of them read the same book (specified interpretation). If the adjective had appeared in prenominal position: *Todos os estudantes da turma tinham lido uma famosa novela*, it would have been clear that every student reads the same book (only specific interpretation).

As can be seen in the examples above, the position of the adjective strongly affects the interpretation of the noun phrase.

Finally, there are some other aspects that influence the position of the adjective. In some cases, the prenominal position can be used in order to emphasize something.

(87) Ela é realmente uma grande mulher: É a mulher mais alta do mundo.

In this case, the adjective occurs in the prenominal position because the speaker wants to point out that the woman is a very tall woman (Mendes et al. 2013: 1090ff).

Another aspect which influences the position is the subjective or objective interpretation. As previously mentioned, adjectives in the prenominal position have a non-restrictive reading. In other words, the denoted property does not serve to identify the mentioned entities of the nominal syntagma, but it provides some extra information that can be considered as a personal opinion, for example in *doce mousse*.

If the speaker's objective is to underline the denoted properties, they put the adjective in the prenominal position. Therefore, the adjective can be understood as being more subjective. Consequently, not every adjective can be put in the prenominal position, such as adjectives that only express objective properties, like relational adjectives.

(88) * uma casada mulher

Even if the speaker thinks that the person is not happy in her marriage or may be seeing someone else, a person cannot be semi- married, because being married is a state.

Moreover, some adjectives can belong to different groups. For instance, qualifying adjectives can get an adverbial reading, when the adjective is positioned in the prenominal position and combined with event nouns, like *uma breve conversa*, which would describe a short conversation (ebd.: Bd.2,1451). When an adjective is part of different classes, the prenominal adjective may be helpful in clarifying the intended interpretation, for instance:

(89) Um livro fantástico

(90) Um fantástico livro

The first example can represent a fantasy book on the one hand, or on the other hand, a fantastic book. The first case represents a genre while the second example represents an evaluation. This leads to ambiguity. To prevent this ambiguity in its interpretation, the adjective could be positioned before the noun, like in example 90 (ebd.1452). If the meaning is a fantastic book, it should be positioned after the noun. Naturally this ambiguity can also be resolved by using a certain intonation. In the case of: *Que livro fantástico*, the genre of the book is not mentioned, but a subjective opinion is expressed.

Besides the mentioned factors, the literary register, principally in a figurative sense, also has an influence on the position of adjectives. The adjectives *magro/gordo*, for example, are normally used for animate referents or organic materials: *um gato magro/ carnes magras* but they can also be used to express a figurative sense: *gordos salários*. This does not mean that the salaries are fat, but that they are well-paid. Therefore, it is important to take the context into consideration and to read between the lines (ebd. 1453f).

Another indicator for the prenominal or postnominal position is the gradeability of adjectives. Typically, gradable adjectives can be positioned before the noun, while non-gradable adjectives, like relational adjectives, cannot appear in prenominal position. Not every gradable adjective can appear in prenominal position. This flexibility also depends on the function of the adjective in the phrase. If it is used as a complement it cannot be used prenominally, for example:

(91) *um fácil problema de resolver. (Connett 2016:8)

Finally, the position of the adjectives is influenced by syntactical, semantic, phraseological, prosodic and phonetic aspects, which can lead to different readings and interpretations. It is important to mention, that usually it is not only one aspect which determines the position of the adjective but a set of them.

In the next chapter I will explain what a competent Portuguese monolingual needs to know about adjectives themselves and their position.

2.6 Chapter summary

To sum up, adjectives do not often receive much attention although they are an important part of a phrase in order to specify the intention of the speaker. Usually some

adjectives are part of one or more types of groups. Normally the group of flexible adjectives occur either, in prenominal, postnominal or in both positions. Thus, making it possible for certain adjectives to occur in different positions depending on their function in the nominal syntagma. The position of the adjectives can be influenced by different factors: semantic, prosodic, phonological, stylistic, phraseological or syntactical ones and often it is not a certain factor which determines the position but a set of them. In consequence, this position controls the restrictive or non-restrictive reading and therefore the meaning of the nominal syntagma, which is also influenced by the type of syntagma (definite or indefinite syntagma). This difference between prenominal and postnominal position can also be influenced by the quantity of adjectives in the phrase. Some adjectives, such as relational adjectives, are more connected to the noun which makes the flexibility of their position impossible. Other adjectives can move to the left or to the right side of the noun more easily.

Another point, that competent European Portuguese monolinguals have to consider is that two possible functions of the adjective are possible: the attributive and the predicative function. In the attributive function, the adjective appears in pre-or postnominal position because it modifies the noun and in the predicative function, it appears in postnominal position due the copulative phrase.

Moreover, Portuguese adjectives can be gradable and non-gradable, and this may also interfere with the position of the adjectives and in their ability to be combined with adverbs: non-gradable adjectives cannot occur in combination with adverbs, while gradable ones can.

Another significant point is the adaption of Portuguese adjectives according to the article and noun. While German adjectives need to be adapted in gender, number and case, Portuguese only needs to be adapted in gender and number.

To emphasise, Portuguese adjectives occur mainly in postnominal position. In contrast, German adjectives appear almost only in the prenominal position (They may occur postnominally in poems).

(92) ein kleiner Hund

(93) der kleine Hund

(94) Hänschen klein

Example (92) and (93) correspond to the current spoken language, where adjectives appear in prenominal position and have to be adapted in their case, gender and number. The other example is unmarked and appears after the noun. These constructions were

common in literary work in the 19th century where poets and authors used the adjective in postnominal position based on melodies and symmetrical verses.

Therefore, German adjectives occur in prenominal position and Portuguese adjectives particularly in postnominal position. Consequently, this leads to the questions of how bilinguals acquire adjectives of different systems and if there are some differences in the acquisition of adjectives in monolingual and bilingual contexts, that is to say if it may be easier to acquire a language if there is no controversial information saved.

In the next chapter, I will analyse how language is acquired. I will start by comparing the terms monolinguals and bilinguals, also taking into consideration the term of heritage speaker. Another topic represented will be the acquisition of adjectives by monolinguals and bilinguals, so I will explain which tasks relate to this acquisition, which difficulties may appear and the importance of pragmatics, semantics and syntax in this process. Finally, I will compare the acquisition of adjectives by monolinguals and bilinguals and consider factors that determine the linguistic competence of bilinguals and what the reason for the existence of difference in linguistic proficiency might be.

3. The acquisition of adjectives

In this chapter, I want to explain what the difference between monolinguals and bilinguals is, how these groups of speakers may differ in the acquisition of adjectives and how these differences may be explained regarding factors of the linguistic competence.

3.1 Monolingualism vs. Bilingualism

As evidenced by the prefix “mono”, monolingualism is the condition of being able to speak only one language. Nowadays being a monolingual speaker is a rarity and it is more common to speak two or more languages, due to globalisation, migration or education, for example, as the following quote from (Grosjean 1982: 1) states: “Bilingualism is present in practically every country of the world, in all classes of society, and in all age groups. In fact, it is difficult to find a society that is genuinely monolingual.” Another quote along the same lines is the following:

“As the world becomes more interconnected, it is increasingly apparent that bilingualism is the rule and not the exception. Not only do some countries support bilingual populations because of cultural and linguistic diversity within its citizenry,

but also increased global mobility has enlarged the number of people who have become bilingual at all levels of society” (Bialystok 2009: 8).

But can somebody who learned English in school for ten years or somebody who acquired a language in a familiar context be considered bilingual? Are there different types of bilinguals? Do bilinguals need to speak both languages like a native speaker to be considered a bilingual?

There are different definitions about who can be labelled as a bilingual:

In the extreme case of foreign language learning, the speaker becomes proficient enough to be indistinguishable from the natives around him. In the cases where this perfect foreign language learning is not accompanied by loss of the native language, its results is bilingualism, (the) native-like control of two languages (Bloomfield 1942: 55f).

Bloomfield’s definition is part of a maximalist approach which considers to be bilingual everybody who dominates the language like a native speaker. His main factor for considering somebody to be a bilingual was the level of proficiency of the speaker. Other authors have decided to use other central points like the use as the determining reason for considering someone to be a bilingual speaker, which can be seen in: “Bilingualism is the ability to use more than one language” (Mackey 1962: 52) or “A person might have no productive control over a language, but be able to understand utterances in it” (Diebold 1961). In this quotation proficiency, also seems to be important. Therefore, one definition may consist of different factors too.

Finally, the last definition “Everyone is bilingual. That is to say, there is no one in the world (no adult, anyway) who does not know at least a few words in languages other than the maternal variety“ (Edwards 2006:7), is part of the minimalist approach, which considers everyone who express utterances or understands some phrases in another language bilingual.

In my opinion, both extremes are not enough to describe every case. Someone who understands another language because of their own first language, which happens often between Portuguese and Spanish speakers, cannot be considered as a bilingual just because they understand certain words or phrases. On the other side, studies have shown that balanced bilinguals represent the minority of bilinguals and that it is difficult to speak both languages in the same proficiency. There is always more or less input in one language at different ages and bilinguals tend to prefer to speak about one topic in one language and about another one in the other language. That doesn’t mean

that one is not fluent in both languages, it only shows that people can feel more comfortable speaking in one language or in another regarding diverse issues.

Besides, there are some other aspects, like the age of acquisition, the context of acquisition or the type of society that may be a relevant fact in order to describe a bilingual.

Taking the factor of level of proficiency into account, the terms balanced bilingual, dominant bilingual or passive bilingual are an important aspect. Firstly, the term balanced bilingual, was proposed by Lambert et al. (1959) in order to describe bilinguals who, dominate both languages in the same way, so to be classified as native in both languages. This term was criticized by Beardsmore (1982) because finding a balanced bilingual is almost impossible and not the norm. The most common situation is the one of a dominant bilingual what means that one language is dominant in general. This dominance may restrict to a certain domain or issue and can change in future. Another case that can be found is the one in Diebolds quote mentioned above. He describes a passive bilingual as someone who understands the language but is not able to speak it. This may be caused by the erosion of the language or by insufficient input in the language.

Another factor may be the age when the language was acquired. It seems important to mention that there exists a correlation between the age of acquisition and proficiency. The sooner a language is acquired, the higher the proficiency. According to this criterion, a difference can be noted between infantile and adult bilingualism. Infantile bilingualism can be divided in simultaneous and successive bilingualism. Simultaneous Bilingualism incorporates everyone who acquired two languages since birth and until three years of age and uses both languages in their environment. In comparison, successive bilingual describes everyone who acquires one language and their second language from the third year of life until twelve. Adult bilingualism encompasses the acquisition of a second language (L2). In this case, the acquisition is neither spontaneous nor implicit.

The age of acquisition also interferes in the next criterion, the context of acquisition. There are different types of context in which children acquire their language(s), the most typical, are the context of natural exposure and of formal learning. So, if someone acquires a language before going to school, they are exposed to natural input while acquiring a language in school means acquiring a language by conscious learning.

Another decisive point may be the use of a language. According to Grosjean (1982), everybody who uses two language every day is bilingual. The use of the languages may differ in their domains. Children may feel more comfortable speaking about family in one language and about nature in the other. Another point that may influence the choice of the language may be the interlocutor or the place where it is used. For example, in school the speaker tends to speak the language of their environment while at home they will use the family language more often. This type of speaker is called heritage speakers. In the following chapter, I will explain it in more detail.

Finally, there are some multilingual societies, like Switzerland, where three official languages exist or societies which are generally multilingual. In these multilingual societies' children grow up speaking different languages, sometimes in different contexts and are, therefore, bilinguals.

3.1.1 Types of bilinguals

The concept of bilinguals occurs principally in three cases: The first possible case may be the one of binational parents who want to consign their own language to their children, so one parent speaks in their native language to the child, while the other speaks in their language, this concept is also known as “one person, one language”.

Another possible case happens within schools where children must acquire a second language, normally English. This second language, the L2, is normally acquired in advanced age, when they are in primary or secondary school. Therefore, the child has acquired another language, their native language. This language is not acquired in an implicit way. The teacher has to teach the child how to use certain grammar rules and the meaning of the words, among other things. It can be concluded that a first language is acquired but a second language is learnt consciously. Normally this language does not correspond to the language, which is spoken in their family, so it's difficult to dominate it as a native speaker (Flores 2016: 162).

The last case where bilingualism can appear, is in the case of migrants where the heritage language dominates in the family environment. This concept of heritage language emerges in the 80s and defines a language of a family of immigrant children or of ethnic minorities. This language is acquired before or at the same time as the environmental language, which is different. Therefore, the children are simultaneous or successive bilinguals. In the beginning of life, the family language is usually dominant, while after entering in school the language of environment seems to be more

dominant. This fact can be different in every case, due to the input, linguistic factors or extralinguistic factors, but normally one language is the dominant one. Moreover, some heritage speakers have classes once a week in their heritage language. This leads to a better performance in writing and reading. However, heritage speakers performed better in colloquial register than in the formal one. This can be caused by the domain where the language was acquired or is used (ebd.: 162ff).

Finally, it is clear that the term “bilingual” includes diverse types of two-language-speaking people, some acquire the second language at the same time as the first language, others some years later but still in childhood and others in puberty or in adulthood. Being bilingual today does not mean that you will always be bilingual. The proficiency of a language can change in the course of time and so the dominance. For this reason, some may ask themselves, if bilinguals have two linguistic systems and if one can be eliminated in certain cases. This, however, is not covered in the scope of the present thesis. However, there is a lot of information concerning this issue. In the following chapters I will explain how adjectives are acquired by monolinguals in contrast to bilinguals. In addition, it will present the tasks of children when they acquire adjectives, the difficulties that may occur and the importance of pragmatics, syntax and semantics in the acquisition.

3.2 How are adjectives acquired by monolinguals?

First, according to Pérez (2007), the age of acquisition seems to be the principal variable which influences the speed of lexical processing and this variable lasts even when others are controlled. In addition, the age of acquisition influences the speed and accuracy of lexical processing in tasks such as word or picture naming, and lexical decision. Therefore, it is important, to mention that Cameirão/ Vicente (2010) developed a rating of age of acquisition of Portuguese words. In this research they asked 685 students to mention the age in which they had probably learned the word they heard. The results showed that adverbs ($M= 5,31$; $SD= 2.04$) were learned slightly before the nouns ($M=5,60$; $SD= 1,56$) and adjectives ($M= 6,06$; $SD=1.53$). The authors explained that adverbs seem to emerge before the other word classes, due to the high presence of typical words such as “yes”. Therefore, this result may not present a general inclination on the acquisition of adverbs.

However, De Oliveira Faria Azevedo (2008) developed another study for children who spoke Brazilian Portuguese in order to confirm Mintz & Gleitmann’s English data (2002). Therefore, she developed two experiments. In the first one she presented known objects by the children associated with pseudo-adjectives. After this, three objects with the same property were presented in an emphatic way: “Look, this is a tapoja house! This is a very tapoja house!” Their study has confirmed that adjectives start to appear at the age of two in the children’s lexic. In the next phase, the test phase, two objects were presented, one with a marked type (*house*) and the other with the marked property (*tapoja*) and the child had to show which was “tapoja”. In the other condition, the objects were the same but presented in a vague form, like “thing”. The children heard phrases like: “Look this tapoja thing”. This led to different interpretations by the children. They did not identify the adjectives with a vague name, even though the objects were known. This experiment suggests that children between 24 and 36 months rely on the known name in order to identify new adjectives. Before the age of two, children understand the utterances but the production of utterances with adjectives occurs later.

According to CHILDES, adjectives almost do not occur at the age of 20 months, while two months later an increase can be formed and four months later the number of adjectives continues rising.

Table 1: Use of predicative and non-attributive adjectives

| | 1;8 | 1;10 | 2;2 |
|---------------------------|-----|------|-----|
| Predicative adjective | 01 | 13 | 23 |
| Non-predicative adjective | 03 | 07 | 09 |

(Faria/Name ? : 3389)

As can be seen in the table, the use of predicative and attributive adjectives increases over time. The older the children are the more adjectives they use. In addition, predicative adjectives, that is to say, adjectives which appear in copula position occur more frequently (Faria/Name ? :3388).

Secondly, it is important to know how Portuguese monolingual children deal with the ambiguity concerning the position of adjectives. Do they differentiate from early one

the different possible positions in Portuguese? Are some positions more difficult to acquire?

These questions have also been approached in the article by Cardinaletti/Giusti (2010). They developed a study with four native speakers of Italian at different ages, roughly between the first and third year of life. Their data came principally from three corpora (Gaia, Sara and Ernesto). These children were recorded at an interval of roughly one month between different ages (from 1;6.29 to 3;05.05) which allowed him to collect different records at different stage of ages. The authors find that some classes of adjectives are not produced at the tested age. These children produced only the following descriptive adjectives: value, size, shape and colour adjectives. The descriptive adjectives which were used by the children appeared almost always in postnominal position. In prenominal position only two adjectives could be found: *bello* and *grande*. These descriptive adjectives which may occur prenominally or postnominally, and which represent the largest variability concerning their position, as in Portuguese, are used as the utterances which the children adapt from the colloquial register. This means that only the mentioned adjectives are used initially in prenominal position and later in postnominal position depending on the context. In addition, adjectives like *altro* (Prtgs. *outro*) which only occur in prenominal position are used correctly, just as with adjectives which can only occur postpositive. Therefore, the author concluded that children do not present difficulties in the adjectival placement in Italian.

Also, the acquisition of Spanish adjectives seems not to be problematic, as the results of the study by Montrul (2004) show. The author analysed spontaneous child data and concluded that adjectives which can occur pre- and postnominally in adult grammar are placed correctly in postnominal position from early on. Even the adjectives which can appear only postnominally do not seem to be a difficulty for children.

Rizzi (2013) analysed the acquisition of adjectives by monolingual and bilingual children; more concretely the acquisition of adjectives in predicative and attributive function. Regarding the position of adjectives, Rizzi figured out, that the monolingual boy Raffaello started to produce adjectives in postnominal position. Only later, at around the age of 3, he produced some prenominal adjectives. In general, the postnominal position is used more frequently. Although some adjectives accept both positions, he uses the postnominal position almost every time, except for one occasion. Furthermore, he used the prenominal position when it was required and the

postnominal position when it was necessary. In consequence, the author concluded that he did not use the wrong position when the other one was required. As a result, he did not make any mistakes regarding the position of adjectives.

Rizzi also analysed the predicative and attributive function of adjectives in her study. In general, monolinguals did not show any significant difficulties in the acquisition of predicative adjectives. The only difficulties found were the overgeneralisation of the masculine singular morpheme and the congruency of assonances of -a- ending nouns with -a- ending adjectives. Moreover, the author observed that the predicative adjectives were acquired between the ages of 1;11 and 2;2. The adjectives in attributive function appeared later, approximately at ages of 2,3. In this case, the use of genus was correct from the first produced attributive adjective.

But what about semantic groups of adjectives? There are only few studies about the acquisition of certain groups of adjectives.

Barriga (1997) investigates the acquisition of qualifying and dimensional adjectives in Spanish. The author describes a change in language of children between the ages of 6 to 12. Her aim was to find and describe the differences and similarities of the use of certain qualifying adjectives. Therefore, she developed a study where she recorded 24 children between the ages of 6 and 12 in three sessions. In these recordings she used the same issues in order to compare the different productions. Barriga only analysed two different categories of qualifying adjectives: the dimensional and the evaluative ones. In the corpus, a total of 65 adjectives appeared and although she expected that the older participants would produce more adjectives; the younger ones produced more adjectives than the older ones (with the exception of one or two adjectives). However, the 12-year old children showed a higher versatility. For the 6-year-old children, the adjective *grande* which is also polysemous in Spanish, referred to size, age and depth. In comparison, for the 12-year-old children, *grande*, was used to express size but also to refer to a metaphorical size: *Fue un gran hombre*. In addition, the author states that the older children used adjectives to express metaphoric and ironic thoughts, while the younger ones used evaluative adjectives in an egocentric perspective: *La fiesta estuvo bonita*. Another remark is that the younger children used *gordo* only to describe a person, while the oldest one used this adjective to describe that something led to somebody's discomfort: *Le cayó gordo el muchacho por mentiroso* (González León/Hernández García 2009:37). This would not work for Portuguese. Nevertheless, *gordo* can also appear in other metaphoric utterances: *um salário gordo*, what would

mean that somebody earns a lot of money. To sum up, this author's investigation showed that although younger children may use some adjectives more often, they are not capable of applying these adjectives in different functions or with different interpretations.

In the study by González León/Hernández García (2009) the main goal was to find out how 3- and 5-year-old children used qualifying adjectives. In order to answer this question, they developed a study with four groups of 20 children each. The first group (A1) consisted of private school children between the ages of three and four, while the second group (A2) consisted of private school children between the ages of 4;4 and 5. The third group incorporates (B1) public school children between the ages of three and four and the last group (B2) was from the same public school and had the same age as group A2. The results showed 119 utterances of adjectives in attributive function and 292 utterances of adjectives in predicative function. The younger groups produced 53 adjectives in attributive function in total and 12 different types of adjectives. The same group produced 153 adjectives in predicative function in total and 11 different types of adjectives. In contrast, the older group produced 66 adjectives in attributive function and 13 types of adjectives, while 139 adjectives were produced in predicative function and 13 different types were used by them. Children seem to prefer the use of adjectives in predicative function in different age of groups. Although the difference in the use of adjectives is not that big, the older children produce more adjectives in general. In addition, the authors concluded that the qualifying adjectives which are used between 3- and 5-year-old children, are antonymous. This may be a strategy in order to qualify their environment and acquire new adjectives during the time.

Galeote's study (2006), which was developed to analyse dimension adjectives, has shown that the knowledge of this group of adjectives also increases with age. Especially the knowledge of adjectives which related to the width of objects rises. Firstly, between 7 and 9 years, children start to acquire a general concept for the width dimension. Some children begin to associate the adjective *wide* with an increasing extension of the object and the adjective *narrow/tight* with lesser extension. In the second phase, between 10 and 12 years of age, children start to differentiate the meanings of width dimension and start to eliminate interpretations as the younger children do (Galeote 2006: 382).

It can be concluded that adjectives are acquired early on. Children start to understand adjectives before being two years old. Only later they start to produce them and only some classes of adjectives are produced from early on. Moreover, predicative adjectives are used more often than attributive ones. However, the use of adjectives and different classes increases with time. Monolinguals also develop postnominal adjectives before they develop prenominal ones. Nevertheless, they do not show problems with non-flexible adjectives in prenominal position.

3.2.1 Importance of syntax, morphology, prosody, semantic and other aspects

Sometimes, it is not easy to identify a certain word category because certain words, like *rápido*, may be used as an adverb or an adjective.

(95) Uma viagem rápida.

(96) Ele comeu a maçã de uma forma rápida.

Therefore, sometimes, it is hard for children to identify the function of a word in a syntagma. There are different clues, which allow children who acquire a language to identify adjectives or even their position more easily. These clues have been investigated in different studies.

Name (2005), for example, investigated if children used the position of unknown words in a nominal syntagma when there is no other clue. Therefore, she developed nine invented images, nine pseudo-nouns and nine pseudo-adjectives. The new words were presented in different steps. In the first one, the child saw the picture of the object and the utterance: “This is a *mabo bipo*”. In the second step, various images with the same pictures were presented and they heard: “Look how many *mabos bipo*s”. In the third step another picture with the same characteristic or the same picture with another characteristic was presented, and the children heard: “This is not a *mabo/bipo*”. In the last step the child was asked to show the *mabo bipo* in the picture. In the first condition the words were presented like this: *um mabo* (Noun) *bipo* (Adjective) while in the second one, they were presented as *um mabo* (Adjective) *bipo* (Noun). This pilot study was carried out with one Brazilian Portuguese speaking girl, who was 3,6-year-old at the time. The results have shown that three of the four sentences in the first condition (Det N Adj) were correct, while only one in four sentences in the first condition (Det Adj N) was correct. Therefore, the author suggests that when no morphological mark can be spotted, children oriented themselves by the

canonical order of Brazilian Portuguese in order to guide the identification of pseudowords which belong to the noun or adjective categories (Name 2005: 415ff). Afterwards, De Oliveira Faria Azevedo (2008) developed a study which confirms that the morphological mark can be understood as a simplification in order to identify pseudo-adjectives. Her study consisted of two conditions. In the first one she chose a concrete noun and a morpheme: *um efelante maposo*, for example, and in the second one she chose a vague noun and a morpheme: *uma coisa jufosa*, for example. Therefore, her hypotheses were that the morphological mark can be considered as a clue to identify pseudo adjectives in concrete or vague nouns when they occur in canonical order. The study was divided into two phases: in the first one, the 2-and 3-year-old children were familiarized with two different objects and one property. In the second part, the same object with another property was showed. The task of the children was not explained in detail. I presume that the child had to point out the right category and property. The results of the study showed that the two-year-old children got 16 out of 22 tasks right in both conditions and the three-year old 26 out of 42 in the first condition and 29 out of 42 in the second task. As a result, the suffix seems to be a relevant information in the process of the identification of the adjective. According to the results, children under 3 years, consider the first pseudo-word as a category and the second as a property. The results of group B, under three-year-old children, suggest that they more often consider the first pseudo-word as a property and the second as a category. This leads to the assumption that the identification of elements in non-characteristic order of the Portuguese (Determinant + Adjective + Name) takes the canonical order as reference for the preposition of the adjective (Faria Azevedo 2008: 78ff). It would also be interesting to know if and how the results change when the noun and adjective do not appear in canonical order in the tasks. Moreover, it is possible to presume that these morphological marks, which seem to be part of mental structures, can be an indicator for the variation of the position of adjectives in Portuguese.

Different studies have confirmed that the syntax and morphological clues are indispensable in order to identify and acquire adjectives. However, not every author thinks that the morphological marks are that important to distinguish nouns from adjectives. This can be explained by a lack of morphological marks and by the fact that the first adjectives which appear in children's language are not the ones with

morphological marks. Therefore, these authors presume that the identification of adjectives is based on the canonical order, as shown in the following study.

In Teixeira's study (2009), the author wanted to verify if children between 18-22 months are sensitive to the canonical order (N+Adj) when new words in form of pseudowords are introduced. Moreover, she wanted to measure the importance of the noun/adjective and adjective/noun order ahead to the information of derivational affixes. Therefore, the author developed four possible conditions (2x2):

- 1) adjective on the right side and an affix: *um dabo miposo*
- 2) adjective on the right side without an affix: *um dabo mipe*
- 3) adjective on the left side and an affix: *um miposo dabo*
- 4) adjective on the left side without an affix: *um mipe dabo*

The study was carried out with 16 children whose average age was 20 months. During the familiarization phase, children saw three identical invented objects in shape, with different colours and the same property (e.g. green triangles). In the contrast phase, each child saw: two known objects (e.g. ball and flower); one invented object, similar to the familiarization stage, without the target property and one invented object, different from the familiarization phase, without the target property. In the test phase a pair of invented objects were presented: one, like in the familiarization phase, of another colour and with a new property (e.g. orange squares) and one equal to the contrast, of another colour and with the target property (e.g. green triangles). According to the results of this study, children fix the values of the parameters relative to the word order from a very early age (e.g., Det + N + Adj). However, they know that certain adjectives must appear in prenominal position. Moreover, the presence of a derivational suffix is important for children in order to establish the correspondence between the pseudo-word and the adjective, especially in the condition in which the adjective appears to the left of the noun. The results of the experiment have showed that children make use of syntactic and morphological information in the delimitation of adjectives and that semantic properties of adjectives forming adjectives are also taken into account (Teixeira 2009:40ff). This study leads to the assumption that this parameter of position of the nucleus is acquired before the child starts to unify two words. This may be a reason for the emergence of only postnominal adjectives in the first months. Therefore, it is necessary to change this parameter in order to acquire the complete grammar of the language. Data of CEAAL/PUC-RS and the Banco de Dados

do Projeto de Aquisição da Unicamp have shown that monolinguals of Brazilian Portuguese start to produce adjectives in postnominal position at the age of approximately two years and that they do not use the prenominal adjectives until 3 years and 7 months. The unique adjective used before the mentioned age, is *meio* by G. This participant produces the following utterance at the age of three: *Ontem eu comi meio bolo*. The used adjective is one that can only appear in prenominal position. To show the importance of the emergence of prenominal adjectives in the input of children, Grolla analysed the recording of the child N for two years (from the age of two until four). According to Grolla (2000), in each session the child developed new structures. The author concluded that it is important that the child understands that prenominal adjectives are produced in its environment. In order to acquire the prenominal adjectives, a certain frequency and coherency must exist. This will lead to an unconscious examination and analysis of the mark of the parameter (de Souza Prim 2019: 921ff).

In contrast, other authors defend that the prosody of the DP is also an important factor for the acquisition and identification of adjectives.

Matsuoka (2006) analysed whether the position of the adjective is also marked prosodically. Her results have shown that adjectives in prenominal position have a longer tonic than the noun in postnominal position. In addition, that the intensity of the preposed adjective is bigger in tonic and pre-tonic syllables than the noun in the same position. Therefore, the author concluded that the positions of the nouns and adjectives have implications on the prosody. This may help children to identify the syntactical structure (Name 2008:130f).

Another study used to exemplify the importance of prosody in DPs, was the one conducted by Almeida (2007). In this experiment, pictures with unnamed properties were presented to two and three-year-old children. The aim was to verify if children would use the order of the presented pseudowords to identify if the words belongs to the noun or adjective category. The results showed that the children mainly identified the new word after the determinant as a noun, even in the condition ADJN. In consequence, the author assumes that the canonical order influenced the children. Another similar experiment with objects instead of pictures was developed by the same author. The child was allowed to see and touch the object. The children of the different age groups identified the new adjective even when it was preposed to the noun. The author suggested that when the children have semantical-conceptual information, they

use it in order to classify the categories. When this information does not exist, they guide themselves by the provided syntactical information. These results lead to the conclusion that the order can be a clue to recognize the lexical categories of unknown words, but also that semantic information can be a clue in order to recognize the category if they would not correspond to the normal one.

Familiarity of words is also a factor which can lead to different results by putting adjectives in the correct position. Akthar (1999) has showed that children reverse easier the word order of familiar verbs than unknown verbs. In order to confirm this study, Matthews et al. (2005) developed a similar study with real English verbs. The study concluded that younger children overcame their tendency to match the SOV order by “[...] reverting to increasingly more grammatically complex alternatives as verb frequency increased” (Matthews et al. 2005:132). Moreover, the results showed that younger children’s knowledge of word order depends on the frequency of the used verb. The more times it was used, the more availability the children showed to reverse the word order (Matthews et al 2005:132ff).

To sum up, diverse studies have shown that different aspects influence the acquisition of adjectives. The first important factor is age. Adjectives are only acquired around the age of two and the first adjectives that emerge appear in postnominal position. Prenominal adjectives appear only a few months later. Another relevant aspect seems to be the familiarity, as different studies, such as Matthews et al. (2005), concluded, especially for verbs. It was easier for children to reverse the word order of a familiar verb than to reverse the word order of a novel verb. Last but not least, linguistic aspects, such as syntax, morphology, prosody and semantics seem to be a clue for children in order to identify different categories of a nominal syntagma.

3.2.2 Possible difficulties or supports

Every child may develop some intraindividual strategies when he/she acquires a language. However, there are usually some difficulties that can be found across different children and some strategies that are used unconsciously by the children, as described in the chapter above. In this chapter, I will present supporting factors and some difficulties that occur frequently by presenting some studies which analysed some of them.

In contrast to the noun acquisition, adjective acquisition is a process which takes a lot more time to develop. This may be explained by the lack of adjectives in parents’

speech to their children, according to Sandhofer/Smith. These authors presume that nouns are easier to learn than adjectives because nouns are the dominating word class and adjectives are infrequent in children's vocabulary as different studies showed (Mintz & Gleitmann 2002, for example). Another important fact is that children produce more mistakes in comprehending adjectives. Even when they are older than three years old, errors may occur. Therefore, adjectives seem to be a complicated category to acquire. Last, children often fail to map the meaning to a property. Therefore, Gentner (1982) suggests, that nouns are easy to learn because they refer to simple individuated whole objects and because children are endowed with a perceptual system that elects whole objects. Adjectives, in contrast, seem hard to learn because they refer to selected properties and because children must selectively attend to those properties and perceptually segregate them from the individuated whole objects. Children are equipped with a perceptual concept, making it complicated to learn that adjectives refer to certain properties and that these properties have to be selectively attended and segregated from the whole object. Different studies have been conducted to prove if nouns have a positive or negative role in children's learning about adjectives. Waxman & Markow (1982) presented a known object to 21-month-old children and labelled it with a new property. They found out that the children were able to extend the label to objects with the same property only if this property was part of the same category. They concluded that children have to know something about the noun before they acquire adjectives and therefore, the knowledge about the nominal category plays a positive role in children's acquisition of adjectives. This has also been confirmed by Hall et al. (1993), where 4-year-old children were presented with objects which were marked with novel words in frames which indicate an adjective. Although the object's name was not mentioned, the children were more likely to extend the adjective to a property when the object's name was known by the child than when it was not. The authors point out that it was the familiarity of the presented object which explained their better performance in mapping novel adjectives (Sandhofer/Smith 2007: 234ff). These studies have shown that the knowledge of nouns can be a chance to acquire and identify adjectives in syntagma's more simply, but there are also some aspects which make it harder to learn adjectives.

A difficulty which may occur is the possibility to extend words which refer to a certain object to other members, but the impossibility to extend certain ones of these properties

referring to the noun. But what does that exactly mean? Children must be able to analyse and understand utterances: “Did you see the dolphin jumping out the water?”. This means that they need to identify the mentioned referent and distinguish it from the activity and therefore establish a mapping between them. In order to understand these utterances and segregate the diverse information, children use the grammatical form as a clue to its meaning (Gleitman et al. 2005, Waxmann & Lidz 2006). Another problem that may appear when acquiring adjectives is that children need to understand that one property may refer to different objects, even if these objects are part of different object categories.

The gender and number of nouns in the Romance languages follow a simple model which normally does not lead to difficulties in the children’s acquisition. According to Chini (1995), who analysed her daughter’s acquisition of the Italian gender, a difficulty occurring in the first stages of acquisition was the overgeneralisation of the masculine morpheme and the congruence between a masculine noun ending with the morpheme -a- but ending with the morpheme -o- in the adjective. This phenomenon also occurs in Portuguese, for instance in:

(95) Camionista simpático

(96) O Luca é simpático

In such cases, the general rule which children acquire first is not followed. Therefore, it can lead to complications in the first stages. However, children will normally manage to acquire these expectations, even if it may take some more time.

Another possible problem is related to deriving scalar implicatures which need to be interpreted in a pragmatic, instead of a logical, way. This seems to be difficult especially for children younger than age seven according to Verbuk/Schultz (2010) or Bernicot et al. (2007). However, the following study composed of two experiments exemplifies that this struggling does not really exist. Tribushinina (2012) tested the comprehension of relevance implicatures in children at the age of three and five. In addition, she analysed the consequences of syntactic negation and semantic polarity in the first experiment. Forty children between the third and fifth year of life took part in this study. The children were tested one by one and their task was to offer the presented products to the client (the investigator) one by one. The client commented the product according to the condition they were in: positive (safe), negated positive (not safe), negative (dangerous), negated negative (not dangerous). Then, the child had to decide whether the client wanted to buy the product or not. The results of this task showed

that three-year-old children performed worse than five-year-old in the conditions with negative adjectives (dangerous) and negated positive adjectives (not safe). The results in the other two conditions were similar between the two age groups. In the second experiment the effect of joint attention on the implicature comprehension was tested on even younger children (2;6-3;6 years). In this experiment, the children's performance regarding direct and indirect utterances was also compared. The results showed that children younger than 3;6 years could establish relevance inferences if this was asked. Moreover, the presence of joint attention between the child and the person asking the questions, increased the child's performance. To sum up, according to this study, the deriving scalar interpretation is not a problem for children. However, it did not directly test adjectives which may be interpreted in a logical or metaphorical way. Therefore, no statements can be made in this respect.

Another point that has not been investigated in concrete until now, and which may lead to problems, is the variation of the position of some adjectives in Romance languages and the related change of meaning. I can imagine that until a certain age, children may interpret utterances, such as: *Alto empleado* in the same way as: *Empleado alto*, although there is a difference. Nevertheless, this may also be related to the frequency that the children hear the adjective. Certain adjectives that may occur ante- or postpositive and are used more frequently, such as *grande*, for instance, may be learned before others that are not as common as this one in the input. Therefore, it would be important to extend studies into this semantic field in order to analyse the interpretation of flexible adjectives by young children.

In the following chapter, I will analyse how bilinguals acquire adjectives and if there are differences between their acquisition and the one of monolinguals. Moreover, I want to clarify if some aspects may be more difficult to acquire for bilinguals and whether the coexistence of two language and the cross-linguistic influence may lead to more difficulties.

3.3 How are adjectives acquired by bilinguals?

Having two languages in your mind and knowing when to use one or the other is not that easy. Sometimes, bilinguals try to oppress one language in order to focus on a context, situation or interlocutor which requires the other language. However, anyone who speaks two or more languages knows that it is not that easy to hold back one or another language. Sometimes, one wants to use a word in one language, but can only

remember it in the other language. Therefore, it is interesting to analyse how bilinguals acquire adjectives. Is there any difference between them and monolinguals? Are some aspects harder or easier to learn and what may be the reasons for it? In this concrete case, it will also be important to mention how bilinguals deal with ambiguous grammatical systems more concretely, how they deal with the existence of pre- and postnominal adjectives in Portuguese and only prenominal adjectives in German. It would also be interesting to know if the dominance may influence the use of adjectives in a certain way, more concretely, if the more dominant language, German, leads to placing the adjectives more often in prenominal position in Portuguese. Another central point is the relevance of the input for learning and producing utterances in the language. These questions will now be developed in the following.

According to Groba et al. (2019), bilinguals are more sensitive to referential pragmatic deixis when they learn new words in comparison to monolinguals. Furthermore, the bilinguals' syntactical awareness and their ability to integrate multiple cues for understanding referential intention was more developed. Other aspects, such as general cognitive abilities, like flexible switching and memory flexibility, were developed earlier in bilinguals. The study of these authors analysed how monolinguals and bilinguals learnt novel properties terms by having two strategies in consideration: The **Whole Object Constraint (WOC)** and the **Mutual Exclusivity Constraint (MEC)**. The WOC strategies defends that children interpret novel words for whole objects instead of mapping a novel word onto an object's property. In contrast, children who use the MEC strategy profit from the assumption that words have different meanings when they learn a new term (Groba et al. 2019: 2). Studies, such as Akthar (1999) or Hall et al. (2010) have shown that monolinguals learnt a new word easier when an object was familiar than when it was unknown. The same study of Hall et al. (2010) has divulged that MEC-based disambiguation had a significant influence on interpretations of properties for bilinguals. In contrast, bilinguals are used to learning equivalent translations for one word. In consequence, they cannot consider the mutual exclusivity assumption, especially by increasing the age. While three-year-old bilinguals used this MEC disambiguation, the older ones (four and five years old), did so less or not at all. Therefore, it can be concluded that the more translations children know and the older they are, the less they use MEC-based disambiguation. Monolinguals may also master the MEC in younger years: They accept diverse labels for the same object if they are presented by diverse speakers. Also, bilinguals might use the MEC in older years as a

default assumption when no other information about the word is presented (ebd.: 2f). In effect, I assume that familiar adjectives in one language may lead to a faster learning of the same adjective in the other language. Another particularity which has been observed in Groba's study (2014) with successive bilinguals of German and Spanish, is that the first language acquired weakens the MEC while in the second acquired language, children use the MEC in the same or in an even increased way similar to monolinguals. However, this study also concluded that monolingual and bilingual children follow different word learning strategies. 5-year-old monolinguals follow the MEC more often than bilinguals of the same age. This group of children prefers a second label for a whole object in contrast to monolinguals (Groba 2014:172f). Therefore, it can be assumed that bilinguals may learn new words, such as adjectives, in a different way than monolinguals.

Geveler et al. (2018) developed a study in order to investigate the adjective domain by considering their cross-linguistic and intra-linguistic variation. Therefore, they developed a study with 12 bilingual children of different languages (French-German, Spanish-German, French-Spanish, French-Italian) of different ages and with different degrees of linguistic performance, (un)balanced, and compared their results with monolingual adults. I will only present the results of the German-Spanish children, because it is the closest condition to mine in the present study and because concerning this domain Spanish is the language which works the most like Portuguese. The results suggest a variation between the children: this has also been found in the results of the parents (one adult used the postnominal position more frequently). Syca-Inès and her mum used both positions with almost the same frequency. Also, Nora and Erika behaved similar to the adults. However, Lucas produces prenominal adjectives more often than his mother, although he was raised in Spain and was considered to be a balanced speaker. Teresa (balanced child) and Arturo (unbalanced child, German-dominant) used more postnominal adjectives in comparison to the adults. To summarize, this study made it clear that there is a huge difference between the children: Some children reproduced the input frequencies of their parents or of adults in general, while others did not and therefore the early Spanish bilinguals differed from the Spanish-speaking adults. Unfortunately, this variation between Spanish-German-Bilinguals could not be explained in this experiment (Geveler et al. 2018:149ff). Nevertheless, after considering the results and analysing the children's dominance, I could not find evidences for a correlation between the stronger language and the

position of the adjective. Bilinguals whose stronger language was German did not necessarily tend to place the adjectives in prenominal position more frequently, as it could be expected regarding cross-linguistic influence.

Another result was found in the Rizzi et al.'s study (2013), where 15 corpora of bilingual children who show different degrees of linguistic (un)balance were analysed. All German-Romance children were raised in Germany except for Valentin (Italy) and Marie (France). Therefore, in the majority of cases, German was the environment language and the Romance language was the family/ heritage language. These children have been divided into six groups depending on their language dominance (strongly balanced > balanced > balanced with tendency > unbalanced > strongly unbalanced > extremely unbalanced). The results presented differences between the French and the Italian/Spanish token analysis. French/German bilinguals tend to use the adjectives in prenominal position more frequently while bilinguals of Spanish or Italian and German used adjectives in postnominal position more often. The same tendency has been found for the type analysis regarding speakers of Italian/Spanish. Almost 80% of the adjectives for tokens and types occurred in postnominal position. This has also been observed in adult speech. Moreover, bilinguals produce adjectives in target-deviant position, although not that frequently and, therefore, they differ from monolingual children (bilinguals preferred the prenominal position). However, the frequency with which the of pre- and postnominal adjectives were used by the bilinguals was similar to that of adults.

In order to clarify if there was a correlation between the (un)balance and the frequency of target-deviant adjectives, the authors ranked the children according to their language balance in terms of their MLU difference. A possible correlation was denied because Juliette, for example, who showed the highest frequency of target deviant adjective orders, and Marie, who displayed a very low number of target-deviant orders were both unbalanced. The authors concluded that neither (un)balance nor cross-linguistic influence were the reason for these results because the overuse of prenominal adjective order was typical for bilinguals and was independent of the particular romance language. In consequence, they considered bilingualism itself as the reason for these results (Rizzi et al. 2013: 133ff).

In another elaborated study of six bilingual German-Italian children and one monolingual Italian boy and a monolingual German girl, Rizzi (2013) explored different aspects of the acquisition of adjectives by bilingual German-Italian children.

The earliest recordings started at an age of 1;6,5 years and extended until the age of 5;7,24. However, Rizzi could not record each child in much detail because of some external aspects like moving or separation of the parents, among other factors. Every bilingual child grew up in a binational family who was living in Germany. Therefore, German was the language of the environment and Italian the family language. Nevertheless, there were huge differences regarding the intensity of contact with the heritage language. Some children were categorized as balanced speakers, others as unbalanced, where German was the dominant language and Italian the weaker one or vice-versa. In the following, I will present four hypothesis which seemed important to me:

1. There is no difference between the acquisition of monolinguals and bilinguals regarding this grammatical phenomenon.
2. The influence of languages manifests itself in the choice of the position of adjectives.
3. The acquisition of target-language use of adjectives in bilingual or monolingual (German and Italian) children showed the same robust or error-prone fields independent of which the weaker or stronger language may be.
4. The non-target adjective use can be attributed to the children's input.

In order to verify or negate the first hypothesis, the genus flexion of predicative and attributive adjective in German and Italian was analysed. The results of bilinguals have been compared with the results of the monolinguals of the respective language. These results showed that there were no significant differences between monolingual and bilingual children in the acquisition of the described grammatical phenomenon. Bilinguals did not mix up the flexion rules of Italian predicative adjectives with German predicative adjectives. Furthermore, a tendency of genus use of the Italian equivalent in German and the influence of "syntactical distance" for monolinguals and bilinguals have been confirmed. However, regarding the age of the first appearance of attributive adjectives, the monolingual child starts to produce attributive adjectives later than the bilingual children.

The second hypothesis, which anticipates that the use of a certain language/ of certain languages influences the position of adjectives, has been confirmed by the study. Similarly, the monolingual child, the bilingual children acquired the postnominal position before the prenominal one (with the exception of two bilinguals). In contrast to the monolingual boy Raffaello, the analysed bilinguals started to use the attributive

adjective in prenominal position six months before the monolingual child. The use of prenominal and postnominal position is balanced in bilingual speech, while almost only the postnominal position is used in monolingual speech. Two bilinguals also show a slight tendency to use more adjectives in postnominal position than in prenominal position. In comparison to the first observation period (until the age of three), in the second observation period (until the age of four), bilinguals showed approximately the same frequency of use of prenominal adjectives, but the percentage of non-target use decreased. Another difference between the two groups was the use of obligatory postpositive adjectives. The monolingual boy did not show any difficulty in using non-flexible postpositive adjectives, such as colour adjectives, while the bilinguals showed an overgeneralisation of the prenominal position when the postnominal was required. Due to these differences, the author wanted to know if the input or dominance could be a reason for these results. She noted that neither the input nor the dominance was a reason for these results. However, it could not be denied that parents adapt their speech to their child and use, therefore, more adjectives in prenominal position unconsciously. The author suggest that the inferior complexity of the prenominal position may be an explanation for the findings, such as, an overgeneralisation which may occur in a temporary interference.

The third hypothesis implied that monolingual and bilingual children showed the same tendencies, either in robust or error-prone fields, independent of their stronger or weaker language. This hypothesis has been confirmed since the predicative adjectives in German were not considered to be problematic for both groups, on the one hand, and the predicative adjectives in Italian, on the other hand, could be seen as a difficult aspect in language acquisition. In consequence, the investigator concluded that if one area of one language is robust or error-prone it does not imply that the same area in the other language must be so too. However, the susceptibility of errors can be more obvious in the language which seems to be more difficult for the child. Normally this robustness or susceptibility of errors is caused by a higher or lower structural complexity of the grammatical phenomenon, according to Rizzi (2013:174).

Lastly, the importance of input in order to explain a non-target like use of adjectives has been considered. The author could not find a correlation between non-target-like utterances of the mother and the non-target-like utterances of their child. The divergences found at the parent's and the children's utterances were not always

similar. Some aspects, such as the adjective flexion of genus for example, seem to be more sensitive towards non-target-like input from the mothers than others.

Regarding, the studies of the presented studies, I can assume that some bilingual children tend to overgeneralise the postnominal position and that others will use the prenominal position more frequently when the postnominal was required. Moreover, the variation in the results of the children found in the studies could neither be explained by the input nor by the (un)balance.

In addition, Kupisch wanted to compare data from two adult groups. At first sight, this study may not seem important for my study because she was carried out with adults. However, the first question is also an important question in my study and the analysed children in my study are also heritage speakers and are almost adults so their results should not differ significantly from Kupisch's study. The first group were adults who were heritage speakers of German (2L1 strong Italian) and who grew up in Italy and the second group were adults who were heritage speakers of Italian (2L1 weak Italian) and who grew up in Germany. Kupisch developed two main questions in this study: Do adult and Italian-speaking bilingual children show a tendency to overuse the prenominal position where the postnominal is required? Are the differences between bilinguals who acquired Italian in Italy and bilinguals who acquired Italian in Germany? In order to answer these questions, she developed a study based on two parts: The first part was a naturalistic speech data test, where the adults had to talk about cultural stereotypes, books, movies or/and food in Italian. This conversation lasted half an hour. The second part was a grammatical judgment task in Italian where the participant had to decide whether the sentences sounded correct or incorrect. Furthermore, they had to correct the sentences which they decided to be wrong. The results of the first part of the study showed that the 2L1 who grew up in Italy made practically no errors, while the 2L1 who grew up in Germany made some errors. They chose the prenominal position when the postnominal was required but the difference was not significant. The second part showed a bigger difference between 2L1 strong Italian and 2L1 weak Italian speakers. While the overall response of 2L1 strong Italian was 97,4% the overall response of 2L1 strong German was 82,6%. Moreover, heritage speakers of Italian performed better in repeating grammatical sentences than in correcting ungrammatical ones. Finally, the study suggests that comparative differences in input and use of a language can result in divergent competences in bilinguals. The data showed that bilingual adults sometimes overcorrect structures that

may be identical in their environmental language. Taken into account these results, I assume that it is more difficult for bilinguals than for monolinguals to correct ungrammatical sentences and that they may accept more adjectives in prenominal position than monolinguals.

As far as I know, there is no study which analysed the adjectives in a romance language that may appear pre- or postnominally and which change their meaning depending on their position. In the following studies, it would also be interesting to see if this particularity leads to more difficulties for monolinguals or bilinguals and which position children use more often in comparison to adults, for example.

However, various presented studies have observed the importance of certain factors which determines linguistic competence and may explain the variation between the monolingual and the bilingual children. We can find a huge variation in their results caused by these determining factors of the linguistic competence even among bilingual children. Therefore, I will approach these factors in the next chapter.

3.4 Determining factors of the linguistic competence

Different factors can determine the linguistic competence of bilinguals and explain the variation of the results of heritage speakers. The contact and use of the family language, heritage language and environmental language may vary strongly from child to child. Therefore, the role of dominance is an important point in order to analyse bilinguals. The dominance may interfere with the cross-linguistic influence, a stronger dominance of a language can lead to transfer from this language into the weaker language. Finally, quantity and quality of input also determine language acquisition. All three aspects will be discussed in the section.

3.4.1 The role of dominance

Language dominance can be defined by three different aspects. Firstly, it can be proficiency-based. In this case, the dominant language is the one in which the bilingual is more proficient (Genesee et al. 1995). In addition, proficiency can also be related to language production, language processing, specially, fluency, lexical diversity and parsing speed among others. Secondly, it can be related to the use of language. This means, that one language can be used more or less frequently. The use of language correlates with the proficiency of language. “Bilingual children are assumed to mix language material from their dominant into their weak language (due to lack of lexical

knowledge in their weak language)” (Arnaus/Müller 2012: 247). It can be concluded that in general, when a language is used more often, the speaker is more proficient.

This language would be considered the dominant language, also called a ‘stronger’ language and the less spoken and less developed language is the non-dominant, ‘weaker’ language. The last possibility of defining dominance is related to the context, more concretely, in terms of the environment language. Normally, children use the heritage language at home, which is less heard and used as the environment language. Therefore, children are more proficient in the environment language. This has been confirmed in diverse studies, such as in Kupisch’s study from 2014, where she analysed the dominance of adjective placement from German-Italian adults living in Italy and in Germany. The study showed that bilinguals performed similarly to monolinguals in their environment language, but that there was a variation concerning the minority, heritage language (Flores et al. 2016:4f).

It is important to mention that dominance can change during life. Normally, children are more exposed to family language in their first language and during the first years they can be more proficient in their heritage language. However, after entering school the frequency of use changes. The environmental language becomes more important and children start to use this language more often. Therefore, the dominance changes and the environment language starts to become the dominant language. Another example for this possible change was presented by Flores (2015), where she describes the change of dominance of in a 9-year-old girl called Ana. Ana grew up with German as the environment language and Portuguese as the heritage language. At the age of nine she moved to Portugal and after living there for five months, she started to show word retrieval difficulties and inappropriate discursive omissions. Thirteen months later, she developed syntactic and morphological deficits and German was no longer spoken in her daily life.

To measure dominance, Brown (1973) developed the so-called *Mean Length of Utterances (MLU)* which is the most used criteria (Arencibia Guerra 2008: 15). In her dissertation and the concerning study about language dominance from German-Italian, German-French or German-Spanish speaking children, Arcencibia Guerra has shown that not every child acquires their first language in the same way - that there are balanced and unbalanced children and that dominance changes with time.

3.4.2 The role of cross-linguistic influence

One of the big questions concerning bilingual language acquisition, is the question of the existence of one unitary system or two differentiated systems. Opinions about the existence of independent or dependent linguistic systems differ. The first investigations regarding this issue started in the 1940s. In 1978, Volterra & Taeschner defended the existence of a united system. They presented a study, which led to the conclusion of the existence of a three-stage developmental sequence. However, recent studies have shown that bilingual children are able to discriminate both languages from the beginning (Meisel (1989), Genesee, (1989) and De Houwer 1990). Moreover, Meisel (2007) proposes that the grammatical development of bilinguals works in the same way as the grammatical development of monolinguals and that the final knowledge of bilinguals is more or less the same as the one of monolinguals. Nevertheless, the authors focused on grammar, so there is no mentioning of what happens in other domains like semantics or phonetics. The so-called hypothesis of an autonomous development suggests that there are differentiated systems. Meisel (2001), Paradis and Genesee (1996) predict that there is no influence once the grammatical systems have been separated and that both systems are discriminated from the point when children have access to grammar knowledge. Another theory, in between of the differentiated systems, is the hypothesis of an interdependent development. Different authors like Döpke (1998), Hulk (2000) or Müller (1998), defend that both systems are differentiated but that one language influences the other during the process of acquisition. This may be one of the reasons for interlinguistic interference phenomena's, for example, transfer, acceleration or delay. Consequently, this may lead to the existence of cross-linguistic influence.

The term of **Cross-Linguistic Influence (CLI)** was first used by Sharwood Smith & Kellerman (1986) in order to establish a neutral term that includes phenomena such as transfer, interference, avoidance borrowing and L2 related aspects of language loss. CLI does not necessarily mean that L1 influences L2, L2 can also influence L1. Therefore, the influence is bidirectional.

The nature of transfer is not transparent (Meisel 2011:109). Meisel, therefore, discusses if CLI occurs only in the use of a language or also in the mental representation. His studies lead him to create the following assumption: Transfer may happen on the level of the mental knowledge (*transfer of competence*) or on the language processing level, related to the use of language (*competence-based transfer*).

In order to analyse CLI, it is important to mention that questions can differ when we speak of L2 acquisition or bilingual acquisition. As I am analysing, heritage speakers, I will only focus on important facts about bilingual acquisition.

Cross-linguistic influence is not a constant phenomenon. The effects are transitory and can depend on the phase of development. Some CLI can appear in one phase and disappear in another.

According to Paradis & Genesee (1996), CLI, can be categorized in three different types:

1. Transfer
2. Delay
3. Acceleration

The first type, transfer, means that it is possible to have a transfer from an existent structure of one language to the other language. It is important to distinguish between interlinguistic transfer in the processing and in the moment of use, on the one hand, and transfer in the linguistic knowledge of the speaker, on the other hand. Several studies have shown that bilinguals show transfer in the use of certain structures caused by the influence of the other language (Müller & Hulk 2001). Nevertheless, until today there is no evidence for the existence of a certain structures which has completely been replaced by the structure of the other language. Transfer is typical for **H**eritage **S**peakers (HS) but also for second language learners and occurs especially in the field of lexis. (Grosjean 1982).

Studies that proved the existence of transfer for HS have for example been made by Montrul & Ionin (2010). The authors analysed the use of Spanish articles by English-Spanish heritage speakers. They showed that Spanish HSs prefer the specific interpretation of ambiguous articles whereas monolinguals of Spanish prefer the generic reading. Furthermore, HSs accepted bare plural nouns as generic subjects, for example: *Tigres comen carne*, what is impossible in Spanish but possible in English. However, it has not been clarified what type of transfer this is.

Another important study which demonstrated that not all differences between monolinguals and HSs of European Portuguese can be explained by transfer, is the one by Rinke & Flores (2014). The HSs showed a preference to accept strong dative pronouns more easily than strong accusative objects. This dative-accusative asymmetry cannot be explained by CLI, as it cannot be found in German. However, it was also constated in the results of the monolingual control speakers of EP. Therefore,

the authors concluded that the HSs seem to follow universal linguistic tendencies, just as monolinguals do.

The second type of CLI mentioned by Paradis & Genesee is delay which describes a delay of one structure which may be developed later in a bilingual child than in a monolingual one. Müller and Hulk (2001) have analysed diverse bilingual children with different German-Romance language combinations. In their Romance language, bilinguals acquired clitic object pronouns later than monolinguals. According to Gawlitzek-Maiwald and Tracy (1996), who developed the *Bilingual Bootstrapping Hypothesis*, the child may adapt structures from the more advanced language to the other in order to “compensate” their non-knowledge.

The last type of CLI is acceleration. This describes the opposite of delay, so one structure may be developed faster in one language because of the existence of it in the other language. Kupisch (2007) highlighted that Italian-German bilinguals acquired the articles faster than German monolinguals.

CLI can be influenced by dominance, on the one side, but also by linguistic factors, for example, complexity and ambiguity, parallels between the languages or overlaps of languages, on the other side.

According to Hulk & Müller (2000) and Müller & Hulk (2001), among other authors, there are two conditions under which cross-linguistic influence may occur:

1. The vulnerable grammatical phenomenon is an interface property, e.g., a grammatical property located at the interface between syntax and pragmatics.
2. The vulnerable grammatical phenomenon must appear in both languages in a way as to show overlap of the two constructions at the surface.

Cross-linguistic influence is a common reason to describe the differences between bilinguals, which may differ strongly. Another important reason may be the input which correlates with CLI. If the child has not had enough input in his HL, he will develop a deficiency which he will try to fill out with information of the other language.

3.4.3 The role of input

Input is a language variable which differs strongly from family to family. In several families only the heritage language is spoken, while in others both the heritage language and the environment language are spoken. This may be the case in third

generation of HSs where the parents or one parent was raised in the same country and feels more comfortable speaking the environment language. However, there are also cases where the parents prefer to speak the environment language, although they do not dominate it as a native speaker. In consequence the dominance of the heritage language may differ from child to child and can also differ within a family. Flores et al. (2016) have shown that usually the first child has a better proficiency in the HL than his/her siblings. This may be caused by the introduction of the environment language by the older sibling which gain even more importance once the child goes to school. Moreover, other variables such as the language spoken by caretakers or the number of native speakers in the child's immediate surroundings, among others, determine the amount of exposure. Various studies, for example Flores et al. (2016) have shown that the language constellation at home has an influence on the development of the heritage language. Therefore, an open question is whether this development delay caused by reduced input in childhood may be overcome in adulthood or not. There are different opinions regarding this aspect. On the one hand, Flores et al. (2016), found out that the differences observed considering the subjunctive mood in childhood, could not be found in adolescence. Other studies, like Kupisch (2012,2014) have shown that although children were raised with German and their HL, there was no significant difference between them and monolinguals concerning different domains in morphosyntax. On the other hand, Suchtelen (2014), found significant interindividual differences in the dative constructions in adult HSs of Spanish living in the Netherlands caused by an insufficient amount of exposure during their childhood. This was the case when only one parent spoke Spanish. Although, there are different opinions about the possibility of overcoming insufficient input, it is clear that sufficient amount of exposure is important in order to acquire a language. Rizzi (2013) claims that input is relevant in order to acquire lexical structures, syntactic, pragmatic, morphological and phonetical elements.

Input plays a decisive role in order to start acquiring language in general, as different examples of wolf children, as Genie showed. This child had been locked up in a cave by her father for 13 years and did not have the opportunity of communicating with anyone. After being found she was used for several experiments in order to establish her language competence. She learnt to name some objects, to count and to mention colours, however, she was not able to learn to create a correct sentence. Another study from Kuhl et al. (2003) has shown that when children are put in front

of a TV and receive their input in this way, this is not enough to acquire a language. Interaction between people also seems to be a crucial aspect to acquiring language, just as getting a sufficient amount of exposure is.

Several studies prove that input is important in order to acquire lexical as well as phonetic/ phonological competence. Correia/Flores (2017) analysed the role of input factors in the lexical development of **E**uropean **P**ortuguese (EP) as a heritage language. They found that bilinguals reach the same steps of language development within the same age span as monolinguals and that they go through the same stages of language acquisition as monolinguals. Nevertheless, the receptive lexical repertoires are larger in HS than the productive ones. The authors tried to explain this difference through analysing the input factors. Only some of them were crucial in the lexical development, such as the number of parents who were native speakers of EP, input in general and the amount of output in the HL within the home environment. Another important study concerning the importance of input for phonetic/phonological competence was developed by Rato et al. (2015). It analyses the accent of HSs of European Portuguese in Germany in different tasks by comparing their results with monolinguals and German L2 of Portuguese. The results showed that the HSs had a monolingual-like EP accent which differs significantly from the one of the L2 learners.

It is also necessary to mention that the quality of exposure is as important as the quantity of exposure. This includes the diversity of interlocutors and the contact with native and non-native speakers (Pires & Rothman 2009). Moreover, the variety of different sources of input is relevant, as are the different activities in which the language is used. Therefore, heritage language instruction is a crucial aspect in the language process. Usually HSs acquire especially informal language in their family. To improve formal language, writing and reading skills it is important to be taught. The positive effects of language instruction have been proven by Bylund & Díaz (2012) who analysed the effect of HL instruction on HS language proficiency in Sweden. However, these effects will not last forever. Therefore, language instruction for HS would be more successful, if they were to attend a school of their HL in the country, they live in. This was concluded by Kupisch et al. (2014), looking at HSs attending a French school in Germany. They performed just like monolinguals in diverse fields in both French and German.

Finally, heritage speakers can differ strongly one from another due to the different aspects that may influence their language proficiency. It is important to take these possible influences into account when heritage speakers are compared to Monolinguals in linguistic studies.

3.5 Chapter summary

Adjectives only make up a small part of our language. In consequence, they are acquired later than other categories, such as nouns, for instance. The age of acquisition may differ a little from child to child, but the first adjectives start to be used approximately at age of two not depending on the language or on the type of speaker (monolingual vs. bilingual) (Rizzi 2013: 111ff). However, children do understand adjectives even before they start to produce them. One condition for understanding and identifying adjectives is that the used noun is known.

Different studies have shown that monolinguals of a Romance language acquire the postnominal position before the prenominal one. Moreover, this position is used more often, even for flexible adjectives which would accept both. However, adjectives which can only occur in prenominal position are used correctly from the beginning.

There are different linguistic aspects that may help children to identify adjectives and to collocate them in the right position. Especially semantic aspects seem to play an important role in these tasks, but also prosody, syntax or morphology can be a clue for children. Moreover, it could be confirmed that nouns occur earlier than adjectives in children's speech because nouns help children to acquire adjectives. Studies have demonstrated that nouns can only be used as a support to identify adjectives if they are known beforehand.

Bearing in mind the studies presented, monolinguals showed three difficulties. First, adjectives seem to be difficult to learn because they refer to selected properties which can be extended to other nouns which may not be part of the same category. Therefore, first of all, children need to understand that one adjective can describe a lot of nouns in a different way, more concretely, one adjective can be used as a different type of adjective and consequently, their positions may differ. Secondly, flexible adjectives seem to be more complicated to acquire because young children tend to interpret adjectives in a logical way rather than making a pragmatic (for example, ironic) interpretation, although there are not many studies concerning this. Over time, children acquire these flexible adjectives anyway. Thirdly, regarding the genus and numerus,

genus seems to cause difficulties. Children in early age overgenerate masculine morphemes and have problems with the congruence, if the masculine noun ends in -a.

Like monolinguals, bilinguals also acquire normally the postnominal position before the prenominal position. Nevertheless, in general, bilinguals do prefer the prenominal position more often than monolinguals. Some of these children reproduce the input frequency of their parents, while others do not. Therefore, a big variation regarding this use issue can be found. Another difference between these two speaker groups can be found in adjectives which appear in the attributive function. Bilinguals acquire adjectives in the attributive position around six months before monolinguals do. In contrast, the predicative adjectives in German do not represent a problem for either groups of speakers, while the predicative adjectives in Italian seem to be more difficult for both groups. Especially the allocation of genus presents difficulties for them. Bilingual children make more mistakes than monolingual children when they must allocate the genus and struggle longer with this grammatical phenomenon. Furthermore, bilinguals regularly use the Italian genus and apply it to a German word. It would be interesting to know, whether this phenomenon also occurs in other bilingual language pairs. Another shared difficulty is the overgeneralisation of masculine morphemes during a certain period.

To be able to describe these emerging differences between monolinguals and bilinguals, some authors have tried to analyse if the input or dominance of a language may be considered as a reason for this. The studies presented did not find either a correlation between the mother's input and the preference of use of prenominal/postnominal position or a correlation between the dominance and the (in)correct use of the adjective in their position. However, the authors could not deny that a certain interference between one in another language may exist at a certain point of acquisition.

Based on the findings in literature, I have developed the following hypothesis:

1. Bilinguals and monolinguals show no significant difficulties in evaluating the non-flexible adjectives.
2. Younger children tend to show more difficulties than the older ones from the same group concerning non-flexible adjectives.

3. Bilinguals with German as the dominant language of environment tend to consider the prenominal position as being correct more often than the postnominal position for flexible adjectives.
4. Bilinguals show difficulties in understanding flexible adjectives which change their meaning depending on their position.
5. The younger children of each group will show more problems than the older children regarding flexible adjectives that change their meaning depending on their position.
6. Bilingual children will show different results within their group concerning all the different aspects analysed.

As explained some chapters before, some Portuguese adjectives have to be put before and some after the noun. Studies with bilingual German-Italian and German-Spanish have shown that bilinguals do not have any significant problems in collocating the adjectives to the right position. However, the adjective dominance improves with the passing of time and therefore, I assume that the younger group of each group (monolinguals and bilinguals) will show more difficulties concerning the different types of adjectives and their position.

Moreover, Rizzi (2013) proved that some of the bilingual children tend to use the prenominal position more often when the postnominal is required. This lead to my assumption that bilinguals will accept the prenominal position in flexible adjectives more frequently due to CLI (in German only the prenominal position is possible), while monolinguals will prefer the postnominal position in this case.

As far as I know, no studies have been carried out about adjectives which change their meaning depending on their position, therefore, I have not based my assumption on a study. Various authors, explain that children in younger years principally have difficulties to understand pragmatic or ironic utterances and therefore, I assumed that especially the younger children of both groups will show more difficulties concerning this aspect and that bilinguals will have problems in distinguishing the meaning depending on their position. I also expect metaphorical meanings to be more difficult to understand.

As already demonstrated before, a group of heritage speakers is a heterogenous group, which reflects many differences firstly concerning personal aspects, such as the number of siblings, but secondly also concerning the determining factor of the

linguistic competence explained before. This is why I expect there to be a huge difference in the results of bilingual children concerning their adjective dominance.

4. Study

The aim of my study was to explain how bilingual children acquire and use adjectives in their different positions in comparison to the monolingual children. Therefore, I developed a study consisting of two tests with four conditions each, which I will present in the following. Unfortunately, this study could not be carried out in the way it was planned due to the corona virus pandemic. Nevertheless, a pilot study had been produced based on this study, whose results I will present in chapter 4.2.

4.1 Methodology

The study was divided into two tests in order to incorporate the different types of adjectives which occur in Portuguese and their position. In the first test, I wanted to analyse the dominance of both non-flexible adjectives and flexible adjectives which do not change their meaning depending on their position, while in the second test I wanted to focus on the flexible adjectives that do change their meaning, depending on their position. Due to the shortage of flexible adjectives that change their meaning the second part of the study is shorter than the first one. I did not fix a time limit, as I thought that this may lead to stress situations, especially for the younger ones, so the children were allowed to take as long as they wanted to complete the tasks.

4.1.1 Grammaticality Judgment Task

The first task consisted of a Grammaticality Judgment Task, where 36 Portuguese sentences were presented to, and the children had to decide if the sentence was grammatically correct or incorrect (without correcting it). 12 of these sentences were distracting sentences. The distractors used in the first part were possessive pronouns whose position may also differ depending on the article used: If an indefinite article is used, the possessive pronoun is placed after the noun, whereas if a definite article is used, the possessive pronoun has to be used before the noun: *uma casa minha* vs. *a minha casa*. Therefore, it was not obvious for the children which grammatical phenomenon was analysed.

Moreover, in the other 24 tasks different types of adjectives were presented, as described in the table:

Table 2: Adjective groups used

| Adjective type | Flexible/ Non-flexible adjective | Position | Adjective examples | Example of a sentence used |
|---|---|------------------------|---------------------------|---|
| Qualifying adjective | Not flexible | Postnominal | castanho, venenosas | Não lhes toques! São cobras venenosas. |
| Evaluative adjective | flexible | prenominal/postnominal | gira, saborosas | Quem preparou as saborosas batatas? |
| Intensional adjective | Not flexible | Prenominal | suposto, falso | O suposto ladrão foi levado a tribunal. |
| Relational adjective | Not flexible | Postnominal | mineral, doméstico | Tens algum animal doméstico? Eu tenho um cão. |
| Adjective relating to temporal location | flexible | prenominal/postnominal | futuro, recente, próxima | Na próxima semana a temperatura vai subir bastante. |
| Adjective relating to | flexible | prenominal/postnominal | seguinte | No cruzamento |

| | | | | |
|--------------------------------|----------|------------------------|--------|---|
| location space | | | | seguinte, corta à direita. |
| Adjective relating to duration | flexible | prenominal/postnominal | antigo | Sinto falta do antigo gerente da empresa. |

By using different types of adjectives, I was able to analyse if the children dominate the non-flexible or flexible adjectives and their corresponding position and which group of adjectives may cause them more difficulties.

Every task was assigned four conditions and each child was allocated to one of them.

I will present these conditions by using an example of each task:

Table 3: Conditions of Task 1

| Condition | Task 1 - Examples |
|----------------------------------|------------------------------------|
| Obligatory prenominal correct | Comi meia tosta. |
| Obligatory prenominal incorrect | O inglês é a minha materna língua. |
| Obligatory postnominal correct | O inglês é a minha língua materna. |
| Obligatory postnominal incorrect | Comi tosta meia. |

So, each child was allocated to one condition, and therefore, the prenominal position of a certain adjective could be correct in one condition but wrong in the next.

I chose the **Grammaticality Judgment Task (GJT)** because I consider it to be the adequate way to present this type of phenomenon and to test if children are able to recognize whether the adjective is used in the (in)correct position.

4.1.2 The Picture-Sentence-Matching-Task

The second task consisted of a **Picture-Sentence-Matching-Task** (PSMT) where the children had to decide if the sentences presented matched the image presented. The task consisted of 12 slides. 6 of them were distractors. These distractors were some made up sentences which should test their children's comprehension. Thus, some sentences did correspond to the presented image and context and some did not.

Each task presented had four conditions and each child was allocated to one. In this task, I could not merely change the position of the adjective, I had to change the context in order to reflect the meaning of the adjective in the opposite position and to avoid any misunderstandings that may have occurred with the picture. I will present some conditions chosen by using an example of each task:

Table 4: Conditions of Task 2

| Condition | Task 2 |
|----------------------------------|--|
| Obligatory prenominal correct | O Jorge e a sua avó têm pouco dinheiro. Mesmo assim ele ajuda-a a pagar as compras. Ele é um rico homem. |
| Obligatory prenominal incorrect | O Jorge tem muito dinheiro mas não o partilha com ninguém. É um rico homem. |
| Obligatory postnominal correct | O Jorge tem muito dinheiro. Ele é um homem rico. |
| Obligatory postnominal incorrect | O Jorge e a sua avó têm pouco dinheiro. Mesmo assim ele ajuda-a a pagar as compras. Ele é um homem rico. |

As I explained above, the picture-sentence-matching-task permitted the easy change of the conditions by altering the picture and/or context according to the intended one. Moreover, it provided a further support (a visual one) for children who may have some difficulties in understanding and interpreting texts.

In order to avoid any further difficulties in this task, I planned to start with this task, I wanted to divide the class into four groups (depending on their respective allocated condition) and presented the different sentences and pictures on a PowerPoint with different slides. The first slide made the required task clearer by giving an example. However, I planned to go through every slide with every group, just to be sure that

there won't be any problems. The children received a sheet with both the sentence and a picture on it and check boxes to mark as either it was right or wrong. After having completed this task, every child could then work on Task 1, the GJT, on their own. However, since in the end the study had to be carried out via *Zoom*, I decided to start with Task 1.

4.1 Participants

The actual idea was to analyse four different groups of children: The first group consisted of 16 Portuguese heritage speakers between the age of 9 and 10, living in Germany and whose language dominance was analysed during the heritage language lessons. The second group consisted of 16 Portuguese heritage speakers between the age of 15 and 16, living in Germany and who were also analysed during the heritage language lesson. The third group, a control group were 16 monolingual children between the ages of 9 and 10 from the *Centro de Estudos de Fátima* school while the last group, also a control group from this school consisted of 19 monolingual children between the ages of 15 and 16.

However, due to the fact mentioned above, this study could not be realized as planned. Therefore, I finalized a pilot study which was carried out via *Zoom*. I shared my screen with the children and asked them to start with Task 1, the GJT. After finishing this part, we continued with task 2. Everyone could take all the time they needed to select the right option.

The results of my pilot study were based on the work of seven bilingual children (Heritage speakers of Portuguese) between the ages of 15 and 16, who had either been born in Germany or had come to Germany within the very first years of their lives.

Table 5: Participants

| Participant | Age | In Germany since | Language spoken at home |
|--------------------|------------|-------------------------|---|
| 1 | 16 years | Since birth | Portuguese |
| 2 | 15 years | Since birth | Portuguese |
| 3 | 15 years | Since birth | German (Partially spoken with her mother)/ Portuguese |

| | | | |
|---|----------|------------------------------|---------------------------------|
| | | | (spoken with her mother/father) |
| 4 | 15 years | Since birth | German (dominant)/Portuguese |
| 5 | 15 years | Came to Germany with 7 years | Portuguese |
| 6 | 16 years | Came to Germany with 4 years | German (dominant)/Portuguese |
| 7 | 16 years | Came to Germany with 3 years | Portuguese |

As can be seen from the table above, three of the seven children were 16 years old when they were tested, and the other four children were 15 years old. Moreover, four of the seven tested children were born in Germany and, therefore, they had to deal with the language of environment, namely German, from very early on. The other children moved to Germany until age seven. First of all, it was unclear if I was able to concern the results of participant 5, because he had come to Germany at an age which would normally no longer allow him to be considered bilingual. Nevertheless, his results were similar to the ones of the other children, so, I decided to present them too.

4.2 Results

In the following, I will describe the global results of each task, one by one, and after that, I will proceed with the individual results.

In the GJT composed of 36 tasks, 12 of them being distractors, the children achieved a good overall result.

Table 6: General results of Task 1

| Task | Achieved result | Achievable result |
|---|------------------------|--------------------------|
| GJT | 136 (80,95%) | 168 (100%) |
| Non-flexible adjectives | 114 (85,71%) | 133 (100%) |
| Non- flexible postnominal adjectives | 73 (94,81%) | 77 (100%) |

| | | |
|--|-------------|-----------|
| Non-flexible prenominal adjectives | 41 (73,21%) | 56 (100%) |
| Flexible adjectives with change of meaning | 17 (80,95%) | 21 (100%) |
| Flexible adjectives without change of meaning | 3 (21,43%) | 14 (100%) |

As it can be seen from the table, the children seem to evaluate non-flexible adjectives as correct or incorrect more easily than flexible adjectives with or without a change of meaning.

Regarding the non-flexible adjectives in more detail, postnominal adjectives are more often evaluated correctly than non-flexible prenominal ones.

Moreover, regarding the flexible adjectives, the children seem to have significant difficulties in evaluating flexible adjectives which do not change their meaning depending on their position. This can be explained by the fact that children often do not consider prenominal flexible adjectives to be correct, although they are.

In the picture-sentence-matching-task the children also showed some difficulties as can be seen in the following table.

Table 7: General results of Task 2

| Task | Achieved result | Achievable result |
|------------------------------------|------------------------|--------------------------|
| PSMT | 28 (66,67%) | 42 (100%) |
| Non-metaphorical adjectives | 14 (66,67%) | 21 (100%) |
| Metaphorical adjectives | 14 (66,67%) | 21 (100%) |

The general performance of the children was quite good, although some difficulties could be found. Moreover, the children did not show any more difficulties in interpreting the metaphorical adjectives than the non-metaphorical adjectives.

In the next table, I will present the number of correct answers in total, containing the results of the first and second task, of each child. As the next table shows, the performance of the children was good in general, although a variation could be found.

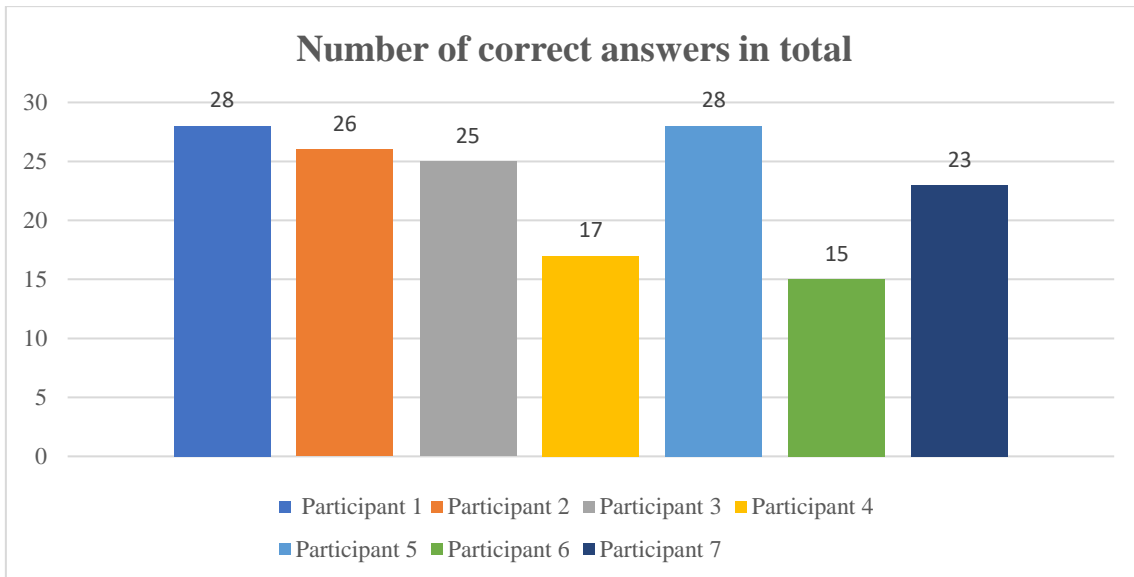


Figure 1: Individual results of correct answers

The achievable maximum was 30 correct answers. Four participants made five or less mistakes in total. Therefore, their performance was excellent. Another participant did seven mistakes in total and showed some problems, while participants four and six, made ten or more mistakes. Thus, this lead my assumption, that these two children have problems with Portuguese adjectives and their position.

In the next chart, the distribution of the results can be perceived in order to analyse which task seemed to be more difficult for the participant. The maximum achievable result for task 1 were 24 points, while for task 2, 6 points could be achieved.

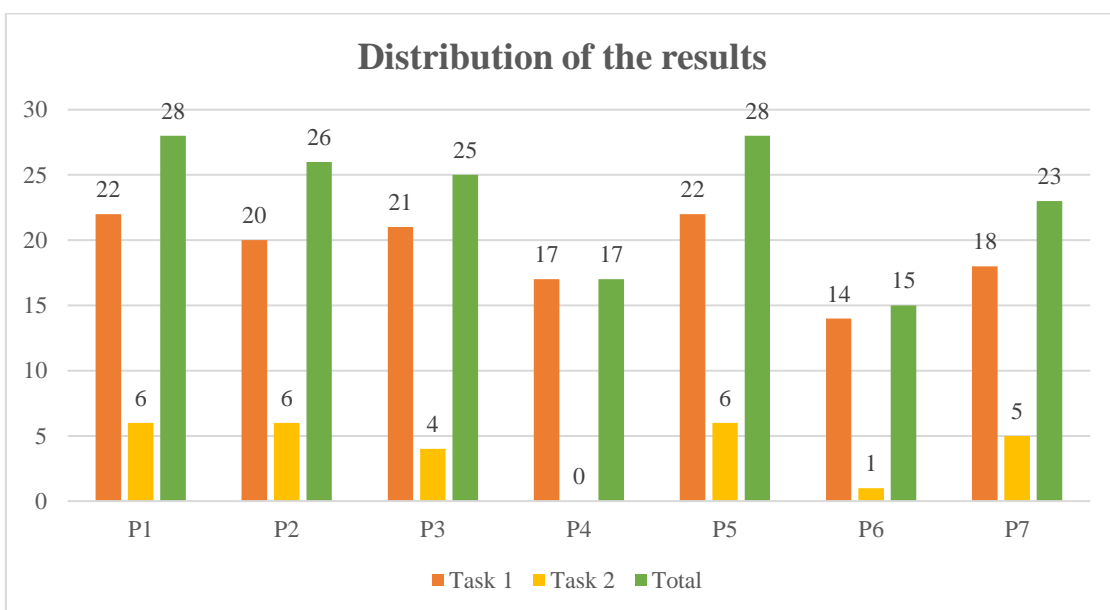


Figure 2: Distribution of the individual results

Participants 1 and 5 performed almost without errors. They did not show any significant difficulties with either task 1 or task 2. In addition, participants 2, 3,7 performed well, too. Only participants 4 and 6 showed more difficulties. Both participants showed difficulties in tasks one and two. They do not seem to have acquired the position of adjectives and their possible change of meaning yet. This leads up to the question whether they will acquire it later. The chart illustrates the variations existing in this group of speakers, some seem to have the same or almost the same knowledge as monolinguals, while others, seem to have problems with this grammatical phenomenon.

In the following, I will analyse the different tasks and the related individual results in more detail.

In the GJT, which was composed with 36 tasks, children in general performed well. 24 of the tasks tested analysed the performance of the positioning of adjectives and 12 tasks were distractors. Therefore, the maximum score which could be achieved was 24.

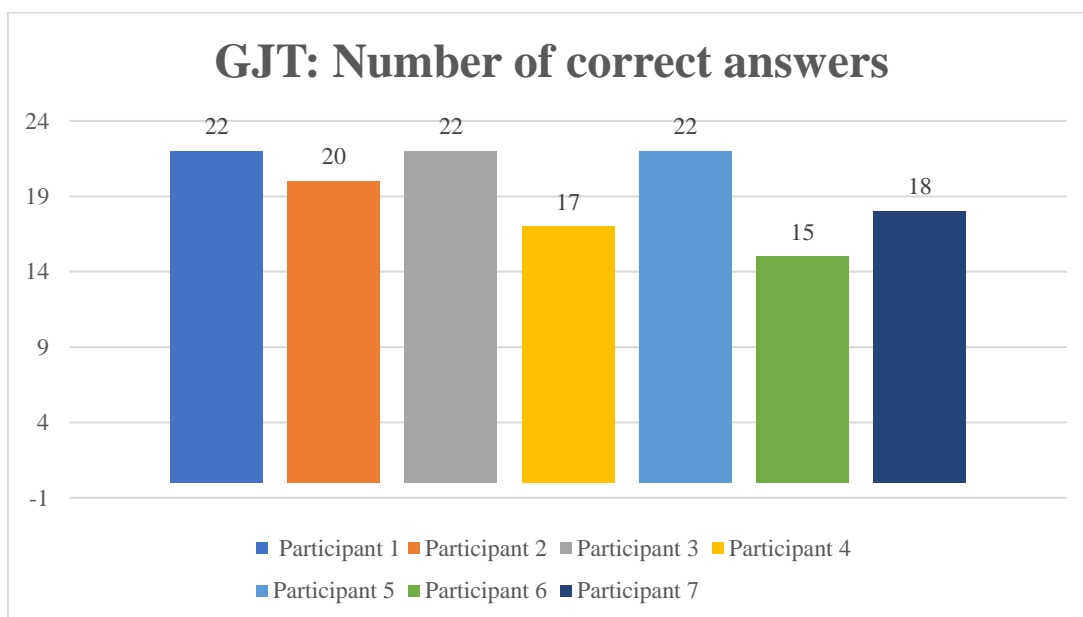


Figure 3: Individual results of task 1

Four participants made less than five mistakes when they had to decide if a sentence was grammatically correct or incorrect. Moreover, the other three participants made less than ten mistakes. This result demonstrates that the children performed well and seem to dominate the flexible positions which do not change their meaning and the non-flexible positions in Portuguese adjectives. However, I decided to analyse what

type of adjectives, flexible ones, non-flexible ones without change of meaning or non-flexible ones with change of meaning, were more difficult.

For the study, I principally used 19 non-flexible adjectives (8 prenominal ones and 11 postnominal ones), 2 flexible adjectives which do not change their meaning and 3 flexible adjectives which change their meaning depending on their position. I only chose 2 flexible adjectives which do not change their meaning because they are not that frequent in Portuguese. The aspect of this last group, the adjectives which change their meaning depending on the position, will be analysed more concretely in the second task, so I have not chosen many examples of this group.

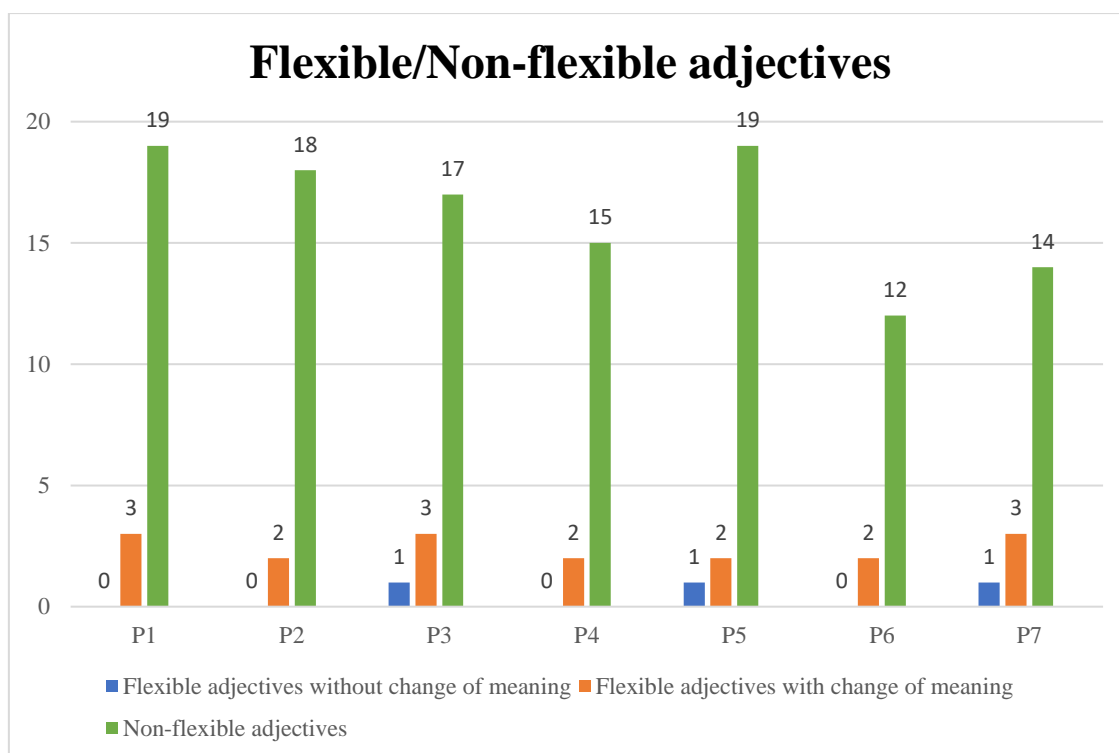


Figure 4: Individual results of the use of (non-)flexible adjectives

As it can be seen, none of the participants analysed achieved the maximum score concerning the flexible adjectives which do not change their meaning. Every child who was asked to judge the sentence: *Quem prepararou as saborosas batatas?* as right or wrong, decided that the sentence was wrong, when the adjective appeared in prenominal position. Also, the children from the other condition, where the adjective appeared postpositive, showed the same tendency. They accepted *saborosas* in postnominal position as correct, although the prenominal position would probably be preferred by monolinguals because it is a subjective expression. A possible explanation for this difficulty in concrete, may be the lack of context. Every sentence was presented by itself, in other words, without context and some context may have helped the

children to understand the purpose of the sentence. Moreover, to avoid these results, I should have also introduced another condition which recognized these flexible adjectives without change in their meaning in prenominal and postnominal position as correct.

In contrast, the flexible adjectives with change of meaning have been mastered almost perfectly, only four children made one mistake, while the others made none. Considering the non-flexible adjectives, a bigger variation could be found. Two children made no mistakes, three children made one, two or three mistakes and only two participants made more than three mistakes. In general, the performance was good, and the performance of some heritage speakers would be comparable to that of monolingual children. The adjective *mero* led to problems because it was not known by every child. Consequently, I had to explain the meaning of it. However, only participants 2 and 6 did not evaluate its position correctly. Since this adjective was not known, it is unclear if the results found can be considered as correct. It is unclear for me if this result is a coincidence or if the children used another support for the evaluation of the presented position.

Furthermore, I decided to analyse which position of the non-flexible adjectives, the prenominal one or the postnominal one, seemed to be harder for bilingual children to understand.

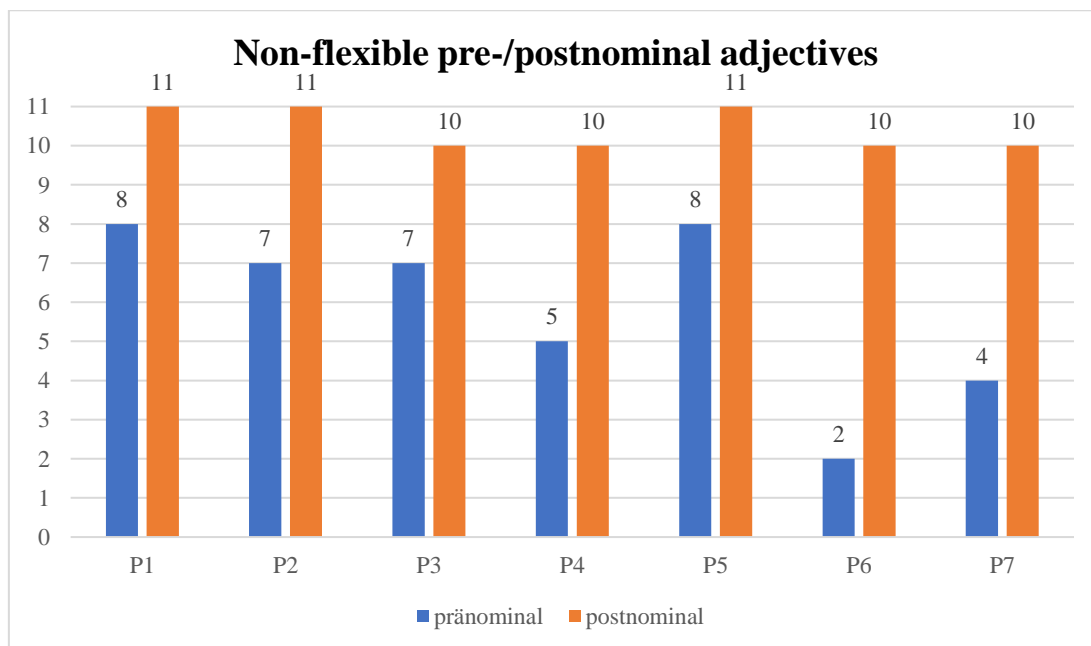


Figure 5: Individual results of prenominal and postnominal non-flexible adjectives

The results showed that most of the mistakes, even though they were few, occurred with adjectives in the prenominal position which were not correctly categorized as (in)correct. While the ones that had to appear in the postnominal position were almost always categorized correctly, the results of adjectives which had to occur prenominally, varies. Participant 1 and participant 5 did not show any difficulties, while for participant 4, 6 and 7 it was harder to decide if the presented task was (in)correct.

In summary, the children performed well in general in the first task. The results of the children and their performance differs. Some children seem to classify non-flexible adjectives as correct or incorrect without any problems, while others seem to have some. Also, the flexible adjectives which change their meaning did not pose any significant problems for the children. However, flexible postnominal adjectives seem to be easier to evaluate than the prenominal ones. Regarding the flexible adjectives which do not change their meaning depending on the position, the children indicate to have problems in accepting the prenominal position. Although both positions are possible, they tend to accept postnominal position as grammatically correct and prenominal position as not grammatically correct.

In the same way, the second task, the picture-sentence-matching-task, represent some variations between the children.

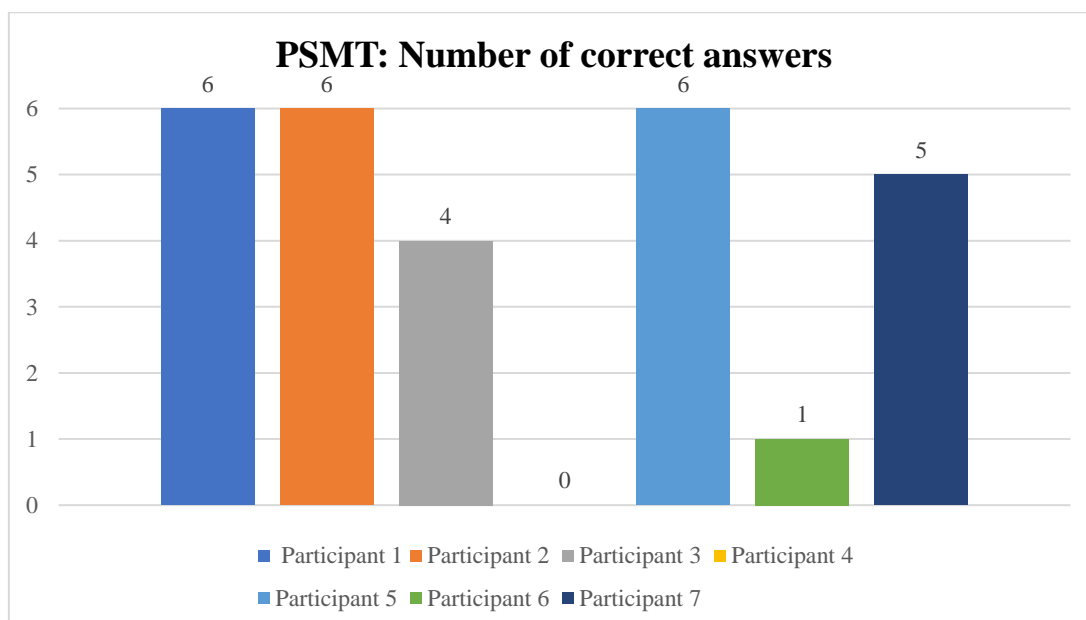


Figure 6: Individual results of task 2

Three children did not present any difficulty concerning the adjectives in recognizing the meaning of flexible adjectives that change their meaning depending on the

position. Two other participants show a high dominance of this phenomenon and only two showed more difficulties. These children recognized only one or no presenting meaning. I could not observe that one adjective, in particular, led to more problems than others. Therefore, I decided to analyse if the metaphorical meaning was more difficult to understand even for the older children than the not metaphorical one or if the error rate is not related to this.

Table 8: Results of (not) metaphoric adjectives

| Group | Condition | Metaphoric/not metaphoric | Achieved results | Achievable results |
|--------------|-----------------------------|----------------------------------|-------------------------|---------------------------|
| 1 | Prenominal grammatically | Metaphoric | 4 (100%) | 4 (100%) |
| 1 | Prenominal ungrammatically | Metaphoric | 2 (100%) | 2 (100%) |
| 1 | Postnominal grammatically | Not metaphoric | 2 (100%) | 2 (100%) |
| 1 | Postnominal ungrammatically | Not metaphoric | 4 (100%) | 4 (100%) |
| 2 | Prenominal grammatically | Metaphoric | 2 (50%) | 4 (100%) |
| 2 | Prenominal ungrammatically | Metaphoric | 2 (100%) | 2 (100%) |
| 2 | Postnominal grammatically | Not metaphoric | 1 (50%) | 2 (100%) |
| 2 | Postnominal ungrammatically | Not metaphoric | 2 (50%) | 4 (100%) |
| 3 | Prenominal grammatically | Metaphoric | 3 (75%) | 4 (100%) |
| 3 | Prenominal ungrammatically | Metaphoric | 1 (50%) | 2 (100%) |
| 3 | Postnominal grammatically | Not metaphoric | 5 (83,33%) | 6 (100%) |

| | | | | |
|---|--------------------------------|----------------|----------|----------|
| 3 | Postnominal ungrammatically | Not metaphoric | 0 (100%) | 0 (100%) |
| 4 | Prenominal grammatically | Metaphoric | 0 (100%) | 0 (100%) |
| 4 | Prenominal ungrammatically | Metaphoric | 0 (0%) | 3 (100%) |
| 4 | Postnominal grammatically | Not metaphoric | 0 (0%) | 1 (100%) |
| 4 | Postnominal ungrammatically | Not metaphoric | 0 (0%) | 2 (100%) |

As can be seen from the table, the children of condition one did not show any problems with this type of flexible adjectives. However, the two participants of the second and third group showed some problems. The two participants in the second group showed difficulties in evaluating non-metaphorical sentences while the difficulties found in group three were principally related to the evaluation of metaphorical sentences. The child in group number four showed problems with both metaphorical and non-metaphorical sentences. Depending on the type of children some meanings can be more difficult than others. However, it can be concluded that I was not able to find a tendency for adjectives with a metaphorical meaning caused by its position being more difficult to evaluate for heritage speakers.

To sum up, the following results, could be found:

The GJT lead to the conclusion that heritage speakers, accept less adjectives in prenominal position, although their position is flexible and although it is more common to use the prenominal position if a subjective opinion is expressed. Moreover, regarding the few flexible adjectives with change of meaning tested in this first part, children did not show significant problems. In the last part tested, regarding the non-flexible adjectives, a divergence between the results of the children was detected. Some children performed like monolinguals by making one or no mistakes and others revealed to have more problems. Especially the adjectives that have to occur prenominally seemed to be difficult for some heritage speakers. In contrast, the children showed less difficulties in evaluating the adjectives that must appear postpositive. Some children even made no mistake.

In addition, a huge difference between the results of the flexible adjectives which change their meaning, could be found. Three children did not show any problems with this phenomenon. Two more showed some problems with these adjectives while two others seem to not dominate the phenomenon at all.

Comparing the children, participants four and six, who had more problems in the first task were also the ones who had more problems with the second task.

4.3 Discussion

Due to the situation already mentioned, I was not able to test all hypotheses. Nevertheless, this pilot study led to some unexpected conclusions, which I want to present in the following. Of course, these results have to be treated with caution, because the group tested was not representative enough. Therefore, it would be important to extend this study to a bigger one in order to verify the findings.

In order to verify or negate the hypothesis, I will present the relevant hypotheses once more:

1. Bilinguals and monolinguals show no significant difficulties in evaluating the non-flexible adjectives.

Since there was no monolingual control group in my study, I cannot compare the results of the bilinguals with the ones from the monolinguals. However, I expect that this task would not have been a problem for them. As the results from the first test confirmed, the six tested bilingual children did not show any significant problems regarding the non-flexible adjectives. Nevertheless, it could be observed that the non-flexible adjectives in the prenominal position, such as *falso* or *suposto* led to more difficulties than the non-flexible adjectives in the postnominal position, such as *venenosa* or *fluvial*. A possible explanation for this finding may be related to the fact that these prenominal adjectives are not used that frequently, and thus unfamiliar. Therefore, children are not confronted with them that often and it seems to be more difficult to collocate them in the right position. Another possible reason may be related to the frequency of Portuguese prenominal adjectives. Portuguese adjectives are placed mostly in postnominal position and prenominal adjectives are part of the exceptions. So, when children hear adjectives their tendency is to collocate or accept the adjective postposed.

2. Bilinguals with German as dominant language of environment tend to consider the prenominal position as being correct more often than the postnominal for flexible adjectives.

This hypothesis could not be confirmed. Even the opposite could be proven. As the results show, bilinguals at this age, do reject the prenominal position for flexible adjectives more often, although this position is typically used when a subjective utterance is expressed, as it was the case in the sentences elected. This finding does not correspond to the findings, that other authors such as Rizzi (2013) made with two of the tested children. In her study, the children mentioned preferred the prenominal position. This may be explained by the age of the children tested or by the chosen test. However, other authors, as for example Geveler et al. (2018), found out that bilingual children with Spanish and German did not tend to use more prenominal adjectives than postnominal ones. This result corresponds to mine. This may be due to three possible reasons. Firstly, it might be hard for children to understand that one adjective can belong to two or more different adjective groups with different positions. This was the case with the chosen adjectives in my pilot study. Bilingual children may tend to put one adjective only in one group and it may, therefore, be harder for them to understand the variation in the position of it may. Secondly, the outcome may be explained by an overgeneralisation of postnominal adjectives. As I said earlier, the largest number of Portuguese adjectives occurs postpositive, so children tend to collocate them in this position, also perhaps in an attempt to differentiate them from the German adjectives. Thirdly, another possible explanation may be the delay in the learning of a structure. These adjectives may be part of an acquisition structure which may take longer to acquire. This time of acquisition can be different from child to child. Some may develop the structure faster than others. This may also be related to the quantity and quality of input the children are exposed to. The children that showed more difficulties in this aspect, were those children who spoke both German and Portuguese at home. Therefore, the input of Portuguese was more limited and could well be seen as a factor which correlates to the results.

3. Bilinguals show difficulties to understand flexible adjectives which change their meaning depending on their position.

Again, there was no control group to make a true comparison, but nevertheless, the results of the PSMT pointed out a large variation between the children analysed. Some did not show any or just some minor difficulties in recognizing the different meanings

of the adjectives depending on their position, while others showed big problems with this phenomenon. Two children answered just one or even no question correctly. The children who showed considerable difficulties in this task were also those children who mainly spoke German at home. To determine whether this is an explanation for the results, more research needs to be done. However, I assume that the input that children receive in their heritage language may reflect itself in their dominance of certain aspects, not only in grammatical phenomena, as among other Flores et al. (2016), showed.

4. Bilingual children will show different results within their group concerning all the different aspects analysed.

As other studies have found, bilingual children tend to show a variation in their dominance of the language and thus, in their results. This has also been confirmed in my study, where a huge variation could principally be found in the second task, the PSMT. It is also important to mention, that the children who performed less well, were the ones whose input of Portuguese at home has not been that frequent. Therefore, this variation can be explained by the determining factors of linguistic competence mentioned. In order to understand which factor or factors are relevant in this case, further studies are necessary.

In conclusion, three of the four hypotheses could be verified by the study. In general, the bilingual children performed well, although some problems could be found, especially with the prenominal non-flexible adjectives and flexible adjectives which change their meaning. In order to consider these assumptions as significant, further studies with more children and studies even across various languages are necessary. It would also be interesting to know if these difficulties can be overcome in adult or if they remain.

5. Conclusion

To sum up, Portuguese adjectives can occur in pre- or postnominal position. These different positions are determined by different factors: semantic, prosodic, phonological, phraseological, stylistic and syntactical ones. Some factors play a more important role than others and often it is not just one factor which determines the position but several ones. As discussed before, the same adjective may have different positions in different nominal syntagma. Thus, it may appear in both positions. Other adjectives can have different meaning in the prenominal position to the in postnominal

one, while still others do not change their meaning at all. In addition, the adjectives have to be adapted in their gender and number in Portuguese, but not in case like German adjectives.

Comparing the monolingual acquisition of adjectives to the bilingual acquisition of adjectives, some similarities could be found. Firstly, adjectives are the last lexical category acquired by both monolingual and bilingual children. Probably because adjectives are not as frequently used as nouns, for example. Secondly, both groups of children acquire the adjectives with approximately two years of age. Thirdly, both groups do acquire the postnominal position before the prenominal one. In addition, monolinguals and bilinguals use such clues, as semantic, prosodic, syntactical and morphological ones in order to determine the position of the adjective more easily. Some studies have shown that there may be a different preference of adjective position in both groups, depending also on the age of children. As well as monolingual children, bilingual children first acquire logical interpretations before metaphorical ones. Moreover, they show some identical difficulties in the acquisition of the gender of adjectives. However, there are also some differences between the two groups. Bilingual children acquire adjectives in an attributive function earlier. Furthermore, they prefer the prenominal position more often than monolinguals according to the studies presented. In my study I could not confirm this. The heritage speakers analysed tended to accept the flexible adjectives in the postnominal position more often and had more difficulties in accepting the prenominal position of Portuguese adjectives. It should be noted that the age of the children and the language tested was not the same in Rizzis study (2013) as in mine. This can be a possible reason for the divergence. In addition, in the studies presented a correlation between the mother's input and the preference of use of either the prenominal or the postnominal position and/or the (in)correct use of their position, could not be confirmed. However, I assume that the divergence found in my study regarding the flexible adjectives which change their meaning depending on their position, could be explained by the differing input of the heritage language of the tested children. In conclusion, a big variation between the performance of the children could be found. Some children made almost no mistakes, while others showed significant problems. It would be interesting to extend this study to a bigger group and to compare the results with those of monolingual children. Moreover, it would also be relevant to explain this variation by considering, for

example, a possible correlation between the results and the quality or quantity input factors.

6. Conclusão

Para concluir, os adjetivos portugueses podem aparecer em posição pré ou pós-nominal. Estas posições distintas são determinadas por vários fatores: fatores semânticos, prosódicos, fonológicos, fraseológicos, estilísticos e sintáticos. Alguns destes fatores são mais relevantes do que outros e muitas das vezes não é somente um fator que determina a posição do adjetivo, mas sim um conjunto deles. Como discutido anteriormente, o mesmo adjetivo poderá ter diferentes posições em diferentes sintagmas nominais, portanto, certos adjetivos poderão aparecer em ambas as posições. Outros adjetivos podem ter um significado diferente em posição pré-nominal do que em posição pós-nominal, enquanto outros adjetivos não mudam de significado mesmo quando a sua posição é alterada. Além disso, os adjetivos portugueses terão de ser adaptados segundo o seu género e número, enquanto os adjetivos alemães terão de ser adaptados segundo o seu género, número e caso.

Ao comparar a aquisição dos adjetivos em crianças monolíngues com crianças bilingues, algumas semelhanças foram encontradas. Em primeiro lugar, os adjetivos são a última categoria lexical adquirida por ambos os grupos. Provavelmente isto acontece devido ao facto de os adjetivos não serem usados com tanta frequência como os nomes, por exemplo. Em segundo lugar, ambos os grupos de crianças adquirem os adjetivos por volta dos dois anos de idade. Em terceiro lugar, ambos os grupos adquirem os adjetivos em posição pós-nominal antes dos adjetivos em posição pré-nominal. Além disso, os monolíngues e bilingues usam pistas semânticas, prosódicas, sintáticas e morfológicas para determinarem a posição do adjetivo mais facilmente. Vários estudos mostraram que as crianças poderão demonstrar preferências de posições distintas conforme a sua idade. Tal como as crianças monolíngues, as crianças bilingues adquirem primeiro as interpretações lógicas, ou seja, as não metafóricas antes das metafóricas. Além disso, as crianças demonstram dificuldades idênticas na aquisição do género dos adjetivos. No entanto, também existem diferenças entre os grupos de crianças. As crianças bilingues adquirem os adjetivos em posição atributiva antes das crianças monolíngues. Além disso, segundo os estudos apresentados, os bilingues preferem a posição pré-nominal mais vezes do que os monolíngues. No entanto, no meu estudo não pude confirmar esta observação. Os falantes de herança

analisados aceitaram menos vezes adjetivos flexíveis em posição pré-nominal e mostraram tendências para o uso de adjetivos pospostos. A língua e as idades das crianças do meu grupo não corresponderam às do estudo de Rizzi (2013) portanto, isso pode ter levado a diferentes resultados. À parte, não foi confirmado uma correlação entre o *input* maternal e a preferência de uso de adjetivos em posição pré ou pós-nominal e/ou o uso (in)correto da posição. Mesmo assim, suponho que a divergência encontrada no meu estudo em relação aos adjetivos flexíveis que mudam de significado dependendo da sua posição, possa ser explicada pela diferente quantidade e qualidade de *input* a qual cada falante de herança é exposto. Para concluir, pude detetar uma variação significativa entre os resultados das crianças. Algumas crianças não cometeram praticamente erros no estudo, enquanto outras demonstram dificuldades significativas. Em seguintes estudos, seria interessante estender o estudo para um grupo maior de crianças e comparar os resultados obtidos com os de crianças monolingues. Além disso, seria relevante explicar a variação encontrada, por exemplo ao ter em conta uma possível correlação entre os resultados e a qualidade e quantidade de fatores de *input* a quais as crianças foram expostas.

7. Fazit

Zusammenfassend kann gesagt werden, dass portugiesische Adjektive sowohl in pränominaler als auch in postnominaler Stellung erscheinen können. Diese Stellung wird von verschiedenen Faktoren beeinflusst: semantischen, prosodischen, phonologischen, phraseologischen, stilistischen und syntaktischen Faktoren. Manche Faktoren spielen hierbei eine wichtigere Rolle als andere und oft ist es nicht nur ein Faktor, sondern verschiedene, die die Position der Adjektive bestimmen. Wie bereits vorher dargestellt, können dieselben Adjektive in verschiedenen Nominalsyntaxmen in verschiedenen Stellungen erscheinen. Deshalb können manche Adjektive auch in beiden Stellungen erscheinen. Andere Adjektive können in pränominaler Stellung eine andere Bedeutung haben als in postnominaler, während andere auch mit einer Stellungsänderung ihre Bedeutung nicht verändern. Außerdem müssen portugiesische Adjektive in Numerus und Genus angepasst werden, während deutsche Adjektive in Numerus, Genus und Kasus angepasst werden müssen.

Wenn der Adjektiverwerb monolingualer Kinder mit dem von bilingualen Kindern verglichen wird, so kann festgestellt werden, dass es einige Ähnlichkeiten gibt. An erster Stelle sind Adjektive die letzte lexikalische Kategorie, die von beiden Gruppen

erworben wird. Das kann daran liegen, dass Adjektive nicht so oft, wie zum Beispiel, Nomen, verwendet werden. An zweiter Stelle werden Adjektive von beiden Gruppen von Kindern mit etwa zwei Jahren erworben. An dritter Stelle werden die postnominalen Adjektive vor den pränominalen erworben. Des Weiteren benutzen Monolinguale so wie auch bilinguale Kinder auch, semantische, prosodische, syntaktische und morphologische Anhaltspunkte, um die Stellung der Adjektive einfacher bestimmen zu können. Einige Studien zeigten, dass die zwei Gruppen eine unterschiedliche Präferenz in der Adjektivstellung zeigen können, abhängig vom Alter der Kinder. So wie die monolingualen Kinder, erwerben auch die bilingualen Kinder zunächst die logischen, nicht-metaphorischen, Interpretationen vor den metaphorischen. Zudem zeigen sie ähnliche Schwierigkeiten beim Erwerb des Geschlechts der Adjektive. Es konnten aber auch Unterschiede zwischen beiden Gruppen nachgewiesen werden. Bilinguale Kinder erwerben Adjektive in attributiver Funktion früher als monolinguale Kinder. Außerdem zeigen bilinguale Kinder eine Präferenz für die pränominaler Stellung, laut den vorgestellten Studien. Jedoch konnte ich dies nicht in meiner Studie feststellen. Die analysierten Herkunftssprecher in meiner Studie zeigten eine größere Tendenz dazu, flexible Adjektive in postnominaler Position, anstatt in pränominaler Position zu akzeptieren. Hierzu sollte gesagt werden, dass die Sprache, in der die Studie von Rizzi (2013) durchgeführt wurde, nicht meiner entsprach, auch das Alter der analysierten Kinder war unterschiedlich. Daher könnten dies mögliche Gründe für die unterschiedlichen Ergebnisse sein. Zudem konnte in den vorgestellten Studien keine Korrelation zwischen dem mütterlichen *Input* und der Präferenz des Gebrauchs von pränominaler oder postnominaler Stellung und/oder dem richtigen/falschen Gebrauch dieser, festgestellt werden. Trotzdem nehme ich an, dass die gefundene Divergenz in meiner Studie bezüglich der flexiblen Adjektive, die ihre Bedeutung verändern je nachdem in welcher Position sie sind, anhand von dem *Input* denen die Herkunftssprecher ausgesetzt sind, erklärt werden kann. Abschließend, kann gesagt werden, dass eine große Variation zwischen der Leistung der Kinder gefunden werden konnte. Manche Kinder machten praktisch keine Fehler, während andere signifikante Probleme zeigten. In weiteren Studien wäre es interessant diese Studie auf eine größere Gruppe zu erweitern, um dann die gewonnenen Ergebnisse mit monolingualen Kindern zu vergleichen. Es wäre auch relevant zu sehen, ob die gefundene Variation, zum Beispiel anhand von Qualitäts- und Quantitätsfaktoren des *Inputs* erklärt werden kann.

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9. Declaration of Authorship

Hereby, I declare that I have composed the presented paper independently on my own and without any other resources than the ones indicated. All thoughts taken directly or indirectly from external sources are properly denoted as such.

10. Appendix

10.1 Grammaticality Judgment Task

10.1.1 Condition 1

1. Adoro o teu cabelo castanho.
2. Esta gira rapariga é a minha neta.
3. A mochila tua parece-me ser nova.
4. As nossas bicicletas foram roubadas ontem.
5. O ladrão suposto foi levado a tribunal.
6. No terceiro mundo, há muita gente pobre.
7. Sempre que íamos ao supermercado, os irmãos nossos queriam vir connosco.
8. Quem preparou as saborosas batatas?
9. Na Alemanha bebe-se mineral água.
10. Uma casa minha seria um sonho.
11. Perdi uns livros meus.
12. Tens algum animal doméstico? Eu tenho um cão.
13. O meu relógio futuro terá que ser de prata.
14. Podes emprestar-me a tua caneta por favor?
15. O casal decide ir apanhar banhos de sol para a praia fluvial.
16. Na semana próxima a temperatura vai subir bastante.
17. A revolução francesa é um acontecimento importante na história.
18. Maria e João, foram as tias vossas que vos deram essas fotografias?
19. O recente tenista já não tem a energia do antigo.
20. Que saudades tenho das palavras carinhosas que me escrevias.
21. Procuro um meu sapato.
22. No cruzamento seguinte, corta à direita.
23. O inglês é a minha materna língua.
24. Todos pensavam que o Rui tinha roubado as joias à Dona Matilde mas afinal ele era o falso culpado.
25. Adoro essas suas flores.
26. Não lhes toques! São venenosas cobras.
27. Dá-me uma folha tua por favor.

28. A portuguesa ocupação causou muitos estragos.
29. O Paulo comportou-se como um verdadeiro amigo.
30. Adoro vestidos azuis.
31. Ontem vi umas tuas amigas.
32. Sinto falta do antigo gerente da empresa.
33. Tenho um problema mero.
34. Gosto de quadrados pratos.
35. Mãe, perdi uma nossa caixa.
36. Comi meia tosta.

10.1.2 Condition 2

1. Comi meia tosta.
2. Podes emprestar-me a tua caneta por favor?
3. A mochila tua parece-me ser nova.
4. Uma casa minha seria um sonho.
5. O ladrão suposto foi levado a tribunal.
6. Perdi uns livros meus.
7. Sempre que íamos ao supermercado, os irmãos nossos queriam vir connosco.
8. Quem preparou as saborosas batatas?
9. As nossas bicicletas foram roubadas ontem.
10. No terceiro mundo, há muita gente pobre.
11. Tens algum animal doméstico? Eu tenho um cão.
12. A revolução francesa é um acontecimento importante na história.
13. Esta gira rapariga é a minha neta.
14. Não lhes toques! São venenosas cobras.
15. Na semana próxima a temperatura vai subir bastante.
16. O meu relógio futuro terá que ser de prata.
17. No cruzamento seguinte, corta à direita.
18. Na Alemanha bebe-se mineral água.
19. O inglês é a minha materna língua.
20. Todos pensavam que o Rui tinha roubado as joias à Dona Matilde mas afinal ele era o falso culpado.
21. O casal decide ir apanhar banhos de sol para a praia fluvial.
22. Maria e João, foram as tias vossas que vos deram essas fotografias?

23. Dá-me uma folha tua por favor.
24. Que saudades tenho das palavras carinhosas que me escrevias.
25. Adoro essas suas flores.
26. Procuo um meu sapato.
27. O recente tenista já não tem a energia do antigo.
28. A portuguesa ocupação causou muitos estragos.
29. Gosto de quadrados pratos.
30. Tenho um problema mero.
31. Ontem vi umas tuas amigas.
32. Sinto falta do antigo gerente da empresa.
33. Adoro vestidos azuis.
34. O Paulo comportou-se como um verdadeiro amigo.
35. Mãe, perdi uma nossa caixa.
36. Adoro o teu cabelo castanho.

10.1.3 Condition 3

1. Comi meia tosta.
2. Uma casa minha seria um sonho.
3. Quem preparou as saborosas batatas?
4. O ladrão suposto foi levado a tribunal.
5. Perdi uns livros meus.
6. Sempre que íamos ao supermercado, os irmãos nossos queriam vir connosco.
7. As nossas bicicletas foram roubadas ontem.
8. No terceiro mundo, há muita gente pobre.
9. Sinto falta do antigo gerente da empresa.
10. Esta gira rapariga é a minha neta.
11. Não lhes toques! São venenosas cobras.
12. Podes emprestar-me a tua caneta por favor?
13. Na semana próxima a temperatura vai subir bastante.
14. O meu relógio futuro terá que ser de prata.
15. No cruzamento seguinte, corta à direita.
16. Gosto de quadrados pratos.
17. A mochila tua parece-me ser nova.
18. O inglês é a minha materna língua.

19. Todos pensavam que o Rui tinha roubado as joias à Dona Matilde mas afinal ele era o falso culpado.
20. A revolução francesa é um acontecimento importante na história.
21. O recente tenista já não tem a energia do antigo.
22. O casal decide ir apanhar banhos de sol para a praia fluvial.
23. Maria e João, foram as tias vossas que vos deram essas fotografias?
24. Que saudades tenho das palavras carinhosas que me escrevias.
25. Dá-me uma folha tua por favor.
26. Adoro essas suas flores.
27. Procuro um meu sapato.
28. Na Alemanha bebe-se mineral água
29. Adoro o teu cabelo castanho.
30. A portuguesa ocupação causou muitos estragos.
31. Tenho um problema mero.
32. Ontem vi umas tuas amigas.
33. Adoro vestidos azuis.
34. O Paulo comportou-se como um verdadeiro amigo.
35. Tens algum animal doméstico? Eu tenho um cão.
36. Mãe, perdi uma nossa caixa.

10.1.4 Condition 4

1. No terceiro mundo, há muita gente pobre.
2. Podes emprestar-me a tua caneta por favor?
3. A mochila tua parece-me ser nova.
4. Na Alemanha bebe-se mineral água
5. O ladrão suposto foi levado a tribunal.
6. Perdi uns livros meus.
7. Uma casa minha seria um sonho
8. Quem preparou as saborosas batatas?
9. Sempre que íamos ao supermercado, os irmãos nossos queriam vir connosco.
10. Não lhes toques! São venenosas cobras.
11. Adoro essas suas flores.
12. As nossas bicicletas foram roubadas ontem.
13. Tens algum animal doméstico? Eu tenho um cão.

14. A revolução francesa é um acontecimento importante na história.
15. Comi meia tosta.
16. O Paulo comportou-se como um verdadeiro amigo.
17. Que saudades tenho das palavras carinhosas que me escrevias.
18. Esta gira rapariga é a minha neta.
19. O meu relógio futuro terá que ser de prata.
20. No cruzamento seguinte, corta à direita.
21. Gosto de quadrados pratos.
22. O inglês é a minha materna língua.
23. Todos pensavam que o Rui tinha roubado as joias à Dona Matilde mas afinal ele era o falso culpado.
24. Ontem vi umas tuas amigas.
25. O casal decide ir apanhar banhos de sol para a praia fluvial.
26. Na semana próxima a temperatura vai subir bastante.
27. Maria e João, foram as tias vossas que vos deram essas fotografias?
28. Dá-me uma folha tua por favor.
29. Adoro o teu cabelo castanho.
30. Procuo um meu sapato.
31. O recente tenista já não tem a energia do antigo.
32. A portuguesa ocupação causou muitos estragos.
33. Tenho um problema mero.
34. Sinto falta do antigo gerente da empresa.
35. Adoro vestidos azuis.
36. Mãe, perdi uma nossa caixa.

10.2 Picture-Sentence-Matching-Task

10.2.1 Condition 1



1 Sentence Picture
Matching.pptx

10.2.2 Condition 2



2 Sentence Picture
Matching.pptx

10.2.3 Condition 3



3 Sentence Picture
Matching.pptx

10.2.4 Condition 4



4 Sentence Picture
Matching.pptx