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THE SPANISH VERBS *ESTAR* (TO BE) AND *SER* (TO BE) IN CHILD-DIRECTED SPEECH

The verbs *ser* and *estar* have been a subject of great debate in the literature, mainly because the adjectives that are combined with each copula are not in complementary distribution. A cognitive linguistics approach proposes that *estar* allows for a comparison of the entity referred to by the utterance's subject and that very same entity that goes through a temporal change; on the other hand, *ser* allows for a comparison among entities of different type (Delbecque, 1997). I provide an analysis of spontaneous child-directed speech from a longitudinal database and find variation sets that may allow children to detect the differences between *ser* and *estar*. In child-directed speech, the entities referred to by the subject of a sentence with estar are always entities that undergo a perceptible change within an activity of daily life, while the entities referred to with ser never undergo a change.

Keywords: Spanish copulae verbs ser & estar, child directed speech, variation sets

Introduction

Although the relevance of child-directed speech (CDS) in early language acquisition has gone through controversial moments, numerous studies have proven that it has a great influence on language acquisition. Children's first item-based utterances are influenced by the linguistic input (Cameron-Faulkner, Lieven, & Tomasello, 2003) and certain linguistic patterns (de Marneffe, Grimm, Arnon, Kirby, & Bresnan, 2012), replicated by deictic grammatical categories (Rojas-Nieto, 2014), and reflected by deictic meanings that represent social values (Espinosa-Ochoa, 2001). It has also been proven that pragmatic intentions can differ according to context in mother-child interaction (e.g., children seek

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attention from their mothers more during toy play than during book reading, which supports the development of oral skills) (Yont, Snow, & Vernon-Feagans, 2003). In child language acquisition, the frequency of tokens ensures the use and comprehension of concrete linguistic pieces (Bybee, 1995). Furthermore, the frequency of types helps the child to arrive at linguistic generalizations, showing that the same construction can serve different purposes in different contexts (Lieven, 2008).

CDS is not representative of all cultures of humankind, since some groups do not direct speech to pre-verbal children (Ochs & Schieffelin, 1984). Nevertheless, it has been demonstrated that the input used in the social context in which language interactions occur at home, and which serves the purpose to integrate the child as a member of a community, supports the child language acquisition process (de León, 2012). Studies conducted in different cultural contexts have shown that the adult's linguistic speech patterns are replicated in the children's speech (Pye, Pfeiler, de León, Brown, & Mateo, 2007).

The study of *ser* and *estar* in child language has recently gathered attention (Alonqueo & Soto, 2016; Requena, Román-Hernández, & Miller, 2014; Schmitt & Miller, 2007; Sera, 1992; Silva-Corvalán & Montanari, 2008); however, we still know little about the characteristics of the use of these verbs in CDS.

The Characteristics of *Ser* and *Estar*

The definition of the verbs *ser* and *estar* has been a very controversial topic in Hispanic linguistics since establishing a clear difference of their use is difficult. Here, I refer in particular to the relationship, established by each of the verbs, between the subject and its attribute. I begin by exposing the uses that are more clearly distinguishable between *ser* and *estar* and then address the use of the copulae with a predicative adjective.

Differences Among the Copulae. Estar is clearly a locative verb. It can be combined with locative adverbs and prepositional phrases (e.g., *la iglesia está a una cuadra de aquí* [the church is located a block ahead from here]). *Ser* is only used in relation to space when the subject of the sentence is an event (e.g., *la boda es a una cuadra de aquí* [the wedding is one block from here]). *Estar*—but not *ser*—forms the progressive present in combination with a gerund (e.g., *la niña está patinando/la niña es patinando** [the girl is skating/the girl is skating]).

Ser is the only one of the copulae that can be used in identifying constructions with nouns (e.g., *eso es un tren* [that is a train]/*eso está un tren**). In addition, it is the only copula that can be used with the past participle to form the passive voice construction (e.g., *Juan es llevado al hospital* [John is taken to the hospital]).

Characterization Constructions with Ser and Estar: The Problematic Area for Usage. As mentioned above, the usage of both *ser* and *estar* with adjectives have been particularly difficult to explain, since there is a group of adjectives that can be used with both copulae. The difference in the meaning of these expressions is subject to the pragmatic context, for instance, the use of expressions like *Martín está flaco* (Martin is skinny) or *Martín es flaco* (Martin is skinny) is dependent on the context. There have been numerous studies in literature that propose an explanation of this phenomenon (Clements, 1988; Fernández Leborans, 1999; Pérez Jiménez, Leonetti, & Gumiel, 2015). In the next section, I will discuss the cognitive approach proposed by Delbecque (1997).

Delbecque's Proposal: A Cognitive Account

Delbecque (1997) focuses her analysis solely on adjectives since attributive predicates are the most difficult to explain. In order to present her proposal, Delbecque develops a scheme in which the subject of a copulative construction, which is always an entity, is represented by means of capital letters (e.g., X, Y, Z) and the attribute by means of Greek letters (e.g., α, β, γ, etc.)

She proposes that *estar* has a locative meaning that allows a referent-bound comparison (X/X). The copula *estar* has an originally locative or spatial meaning (e.g., *estoy aquí* [I am here]). When the predicative is an adjective, an extension of this basic spatial meaning occurs. By means of a metaphorical extension, the attribute is conceived as if it were a mental space, a domain in which the subject is located. The perspective that emerges at the moment of the utterance with respect to X allows comparing X with the same entity X. Delbecque claims in her analysis that "X can appear to us at another moment, either in the same frame or in another frame" (Delbecque, 1997, p. 254). The attribution is projected within the range of the entity being considered as a "token", and taking into account its own development in time, but not linked to another "type" at all. In the case of (1), the speaker is being compared to himself in the past.

(1)
Mi opinión no ha cambiado nada. Estoy igual que antes.
(My opinion has not changed. I am the same as before) (Delbecque, 1997, p. 255)

Following the scheme proposed by the author, *ser* projects a categorization and comparison of entities of different types represented schematically as X/Y. In opposition to *estar*, there is no spatial meaning related to *ser*. When *ser* is associated with a location, the subject is not a concrete entity, but, instead, an event. The use of *ser* implies an automatic activation of entity X with respect to entities X, Y, Z, which can appear implicitly or explicitly in the pragmatic context. In example (2), the two entities (*recuerdos* [memories]/*esperanzas* [expectations]) are explicit:

(2)
Y si te he de decir verdad, vale más vivir de recuerdos que de esperanzas.
Al fin ellos fueron [/*estuvieron] y de éstas no se sabe si serán.
(And if I have to tell you the truth, it is better to live by memories than by
expectations. Eventually, the former were there and concerning the latter
one does not know whether they ever will be) (Delbecque 1997, p. 256).

When *ser* appears with an attribute, the entity is assigned as "type", and
the attribute specifies the categorization. By associating the entity X with
the attribute α, it is differentiated in a specific way from other entities (Y, Z,
etc.). So, *ser* serves to categorize an entity, to classify it as a member of
a category. This category or class is defined by the presence of the quality of
the attribute, as opposed to other possible qualities that can also define other
entities (Y, Z, etc.). In (3), Elton John is classified as honest, in comparison to
other famous people.

(3)
*De hecho usted siempre ha sido (/*estado) muy honesto en sus
declaraciones. En 1976 no le importó confesar a Rolling Stone su
bisexualidad.*
(Actually, you have always been very honest in your declarations. In
1976, you did not mind confessing to Rolling Stone your bisexuality)
(Delbecque 1997, pp. 257-258)

Upon receiving an attribute, entity X appears to receive an identification tag:
X is the identified and α is the identifier.

Thus, in general terms, it can be said that *estar* allows a comparison of
an entity with respect to itself, as a token (X/X), while *ser* sets off an entity as
a category that is implicitly or explicitly compared to another type (X/Y).

Ser and *Estar* in Child Language

It has been argued that 4-year-old children are restrictive regarding
their interpretation of the construction *estar* with adjectives as they associate
this construction with temporariness. They show more flexibility in their
interpretation of *ser*, however, and associate the latter with both inherent and
permanent properties (Schmitt & Miller, 2007). Identical results were obtained
when tested with both known and unknown adjectives (for different results in
the age of acquisition, see Alonqueo & Soto, 2016).

Hernández Pina (1984), who studied the monolingual acquisition of her s
on Rafael, reports that *ser* and *estar* appeared for the first time in her son's
23rd month. *Ser* precedes *estar* in production and it is produced for the first
time with demonstratives e.g., (*este es X* [this is X]). Shortly thereafter, *estar*
appeared to indicate location or state. Soon after that, *estar* was used in
high frequency with gerunds. Ponce-Romero's (2008) study probably dug
the deepest into the Spanish monolingual acquisition of *ser* and *estar*.

She analyzed longitudinal naturalistic data from one child (1;09,09-3;04,27), as well as cross-sectional data from 10 children (2;01-2;10), with a difference of one month of age between each of them. Ponce-Romero discovered that the copulae do not develop as part of a single system, but instead take individual acquisition paths. The first *estar* utterances are locative constructions and are combined mainly with locative adverbs, e.g., (*aquí está* [here it is]). Characterization constructions follow locatives: participles that appear with *estar* have perfective aspect (e.g., *cerrado* [closed], *dormido* [asleep], *despierto* [awake], *mojado* [wet]). The aspectual construction, *estar* + *VB-ndo* (be + VB-ing) is the last one to appear. incorporates even more gradually: the third person singular *es* (is) is the only form used for a long period (10 months in her longitudinal corpus). The frequency of *ser* is lower than the one of its *estar* counterpart but it becomes higher after some months. The first *ser* constructions registered appear in combination with nouns and color adjectives. In general, *ser* was found in identification, characterization, and possessive constructions, but the comparison of the data among children did not show a particular order of acquisition of constructions. This acquisition path was also found by Silva-Corvalán and Montanari (2008) in a bilingual (Spanish-English) child.

The Present Study

According to the findings on child language acquisition, it appears that children go through an initial stage of interpretation of the verb *estar*, in which they attribute a purely temporal meaning to the verb *estar* (Requena et al., 2014; Schmitt & Miller, 2007); and in this stage, they assign the attribute of *ser* an inherent meaning. The interpretation younger children give to these verbs, coincides with the classical meanings attributed to the copulae: *estar* was related to temporariness and *ser* to inherent or permanent properties (Bello & Cuervo, 1945). Nevertheless, this explanation of the scope of the verbs cannot accurately explain many examples, for instance, when the same adjectives are used with both verbs (e.g., *está bobo* [(he) is silly] vs. *es bobo* [(he) is silly]. In this example, it is difficult to know if the entity referred to by the subject of the verbs is being conceived as "silly" in a stage or episode (being compared to himself) and when is it not. Many scholars claim that this actually depends on the conceptualization the speaker has over the referent at the moment of speaking. This means that children first interpret the copulae in the classical sense (*estar* related to temporariness and *ser* for inherent properties) and then develop the possibility of using *estar* to establish a comparison for elements of the same type X/X and *ser*, as a counterpart, to compare referents of different types to X/Y (Delbecque, 1997). The following questions arise:

1. Which characteristics of the child-directed speech provide the linguistic clues to help develop the acquisition of the copulae?

2. How do children experience in daily life the change of the entity
    referred to by the subject of *estar* and how do children experience
    the entity referred to by the subject of ser?

We hypothesize that *estar* and *ser* are used in child-directed speech (from
now on, CDS) in a way that let the children perceive these patterns.

Method

Data obtained from the database ETAL: *Etapas Tempranas en la
Adquisición del Lenguaje* (Early Stages in Language Acquisition) – National
Autonomous University of Mexico (Rojas-Nieto, 2007) was studied. I chose
two families of the corpus and analyzed only the speech of adults: Flor's
family and Julio's mother. The subjects under study are all native speakers
of Mexican Spanish. Flor is an only child. Both her mother and a researcher
videotaped her in her own home and in the home of her grandparents. Julio
is the second of three boys and was mainly recorded by a researcher at home
and, occasionally, also during visits to the homes of other relatives. They both
interact mainly with family members in everyday life activities. These children
were selected because the family dynamics established by each family vary
considerably among them. Furthermore, there are clear differences among
the children's linguistic development: Flor started speaking very early (around
1;02) and her speech is very advanced while Julio is a late talker. These
differences among them might give us a broader perspective in the analysis
of the speech directed to them.

The initial goal of the study was to focus only on the mothers' speech,
but due to the absence of Flor's mother in one video, I decided to consider
also the speech of the main caretaker at any given moment. I also considered
utterances of interaction triads in which the child took part, even if they were
not specifically directed to the child. The condition for considering these
utterances was that the child had to be actively involved in the topic and had
reacted to the utterances, which would ensure she or he was paying attention.
Two-hour long videotapes were studied, three per family, which sums up a total
of twelve hours of interaction. To ensure to identify the referents of the subjects
of the utterances, I did not only check transcriptions, but also directly observed
the videotapes. I decided to study CDS associated to an early period of child
acquisition of *ser* and *estar*, considering that CDS might change as child speech
matures (i.e., the data studied is adult speech directed to children who are in
an early acquisition state of the copulae). To decide the stage of acquisition
of the children, we relied on two studies: that of Hernández Pina (1984), who
documented *ser* as the first verb to appear in the corpus and the aspectual
construction of *estar + gerund* as the last one, and that of Ponce-Romero
(2008), who adds that the first verb to be productive is *estar* in locative
constructions (see Table 1).

In the first video considered, both children had locative *estar* constructions as their only *estar* constructions. They both produced at least one gerund in the last video examined. In this sense, I ensure that I fully covered the primary acquisition stages of these verbs.

Table 1. *CDS analyzed was addressed to children in the ages shown here*

Flor	1;08,10	1;09,05	1;10,24
Julio	2;06,28	2;07,22	2;08,26

I counted every *ser* and *estar* verb + lexical item uttered by the mother/main caretaker, but ultimately considered only those whose referent was available in the context. No rhymes, songs, nor reading aloud were considered for the analysis. All names have been changed to protect the anonymity of the participants.

Results

Quantitative Results

Table 2. *Predicates found with the verb ser and estar in CDS (tokens)*

Predicatives with *estar*			
	CDS to Flor	**CDS to Julio**	**Total**	**%**
Adjectives	54	76	126	36.7
Locative adverbs	49	42	91	26.5
Interrogative Pronouns	23	43	66	19.2
Gerunds	15	26	41	12
Prepositional Phrases	17	1	18	5.3
Modal adverbs	0	1	1	.3
Total	158	189	343	100
Predicatives with *ser*			
	CDS to Flor	**CDS to Julio**	**Total**	**%**
Nouns	45	108	153	45
Interrogative Pronouns	39	85	124	36.4
Prepositional Phrases	9	15	24	7
Adjectives	8	11	17	5
Possessive Pronouns	8	4	12	3.6
Clauses	3	5	8	2.4
Demonstrative Pronoun	0	2	2	.6
Total	112	230	340	100

Table 2 presents the frequency of the predicates found with each copula, separating the data directed to each child.

The predicates were ordered, from top to bottom, from the most to the least frequent, considering only the addition of CDS directed to each child in the column of the totals. Although the distribution of the predicates used among the different predicates was not exactly the same, the frequency patterns are fairly similar, with two exceptions: in Julio's family, interrogative pronouns were preferred very slightly over locative adverbs with *estar* (43 to 42), and clauses were preferred very slightly over possessive pronouns (5 to 4) with *ser*.

As shown in Table 2, adjectives are the most frequent predicates used with *estar*, while nouns are the preferred predicates for *ser*. Adjectives are used with *ser* as well, but the frequency is considerably lower in relation to the number of adjectives used with *estar*: 36.7% represents the combination *estar* + adjective and only 5% for *ser* + adjectives. Even though adjectives are the most prominent predicates for *estar*, locative adverbs (26.5%) are almost as frequent as adjectives (36.7%). Both of them are the most abundant predicates used with *estar* in CDS, followed by interrogative pronouns (19.2%). *Ser* has only two main predicates in CDS, nouns and interrogative pronouns. The rest of the predicates used with *ser* in CDS are lacking in representation: prepositional phrases (7%), adjectives (5%), possessive pronouns (3.6%), clauses (2.4%) and demonstrative pronouns (.06%).

Interrogatives

Due to the great number of interrogatives found for *ser* and *estar*, I discuss this point in some more detail. Interrogatives for the verb *estar* in the CDS are mainly locative; the greatest amount of them are "where-questions" (*Dónde*) (83.33%). *Ser* questions, on the other hand, are mostly "what-questions" (*Qué*) (67%), and "who-questions" (*Quién*) (21.77%), that seek a nominal answer. Adults invite children to **identify** elements with *ser* but **locate** elements with *estar*. It is also important to consider that the number of questions asked increases slightly when mothers are conscious of being recorded (Cameron-Faulkner et al., 2003), probably as a motivator to prompt the child to talk.

Qualitative Results

The copula *estar*. In regard to *estar*, an interesting interactional scheme was found according to the types of entities used as subjects of the verbs. This can be classified into three different patterns that are in line with Delbecque's (1997) proposal about the verb *estar*. The first pattern exhibits single entity constructions and, as she describes, they entail a change of the subject, in location, or state, which appears in different moments of the interaction but frequently enclosed within a particular activity. The exception to this single activity frame is when the subject of the utterance is

the child, as her/his condition or state changes constantly during daily life. *Estar* constructions, in which the child is the subject of the utterances, have been found for this pattern in different activities and are relevant because the child is the center of the mother's life and thus might be sensitive to the changes he or she goes through. For example, the mother/main caretaker said at some point that the child is clean, *Está limpia* (She is clean) in a triad, and addressed her in different moments to say that she is well dressed (*Estás bien vestida* [You are well dressed]); slightly tired (*Estás cansadita* [you are slightly tired], *Estás cansada* [you are tired]); or cold (*Estás fría* [You are cold]). For this reason, these utterances found in CDS might have an impact on children's language development. I called this pattern a **single entity pattern**.

The second pattern consists of constructions in which the entities referred to are part of a set; they exhibit, in a very graphic way, the profile described by Delbecque (1997), as an internal perspective that establishes an X/X comparison in which tokens of the same type are compared. I called these constructions **set patterns**.

The third and last pattern found consists of constructions whose contrast might not be verbalized, but which entailed an implicit contrast. This last display of regularities is called **implicit contrast pattern**. A more detailed overview of these patterns is provided below.

Single entity pattern. As described before, the subject of the utterance in the single entity pattern appears in different moments, also identified as "conversational turns", in the same context/activity, but with different predicates, or else the same predicate but with elements that express degrees of change. I provide in (4) an example of the single entity pattern recorded during bath time activity in which the subject of the utterances is the bath water.

(4)
Context: The child is about to get in the bath. She puts a foot inside the water, and then immediately out.

Video timing: 00:00:03
MOT: ¿Está **caliente**?
    (Is (it) **hot**?)

The child does not want to get in despite the insistence of the mother and grandmother.

Video timing: 00:01:26
CHI: ete (= caliente?)
    (= hot)
MOT: **No** está **tan caliente** mi amor
    ((It) is not so hot my love)

The child is now in the bath, but she does not want to sit down.

Video timing: 00:02:54
MOT: **Ya** no está tan caliente
        ((It) is not so hot anymore)

Now the mother is encouraging the child to get out, she goes out for five seconds but when the mother gets the towel, the child gets in the bath again. Her mother complains.

Video timing: 00:24:01
MOT: **Ya** está **fría** mi amor
        (Now (it) is **cold** my love)

In this example, the mother talks about the water temperature to encourage the child to get in the water at the beginning and after 24 minutes, to get out. Water is often used with *estar* due to its changing properties. In example (4), the predicate *caliente* (hot) is being modified as the temperature of the water changes, with a negation (no) and the adjective *tan* (as). The types of adjectives used with *estar* by CDS have a perfective aspect.

These kinds of constructions that offer a contrast, given by the use of multiple/modified predicates for a single subject, have also been found outside the constructional frame as adjacent (5a) or coordinated to it (5b).

(5)
The referent is a book for (a) and bath water for (b):

(a)
GMA: Está al **revés**, ponlo al **derecho**.
        ((It) is upside down, put it right side up)

(b)
MOT: ¿Está **buena**, **fría** o **caliente**?
        (Is (it) **good**, **cold** or **hot**?)

In these utterances, the contrast is provided immediately, instead of conversational turns; in all of the cases, the contrast suggests that one single entity can be characterized in different ways, or, as seen in (4), that it has a changing state.

Lexical variation is not restricted to adjectives as it also appears in relation to locative adverbs and, less frequently, to prepositional phrases. The examples given in (6) were collected during bath time again, but in this case, the bar of soap is the subject.

(6)

Context: The child is taking a bath. Her soap slips again and again.

Video timing: 00:05:26
CHI: abóm (= jabón)
     (= soap)
MOT: jabón
     (soap)
     ¿dónd/está tu jabón?
     (Where's your soap?)
     ahorita lo buscamos
     (We will look for it now)

The mother puts her arm inside the bath and looks for it.

     ha de **estar por aquí** míralo
     (It should be somewhere here, look at it)
     aquí está
     (Here it is)

Video timing: 00:09:23
CHI: ota? (= ¿Dónde está?)
     (= Where is it?)
MOT: **por aquí** está mira vamos a buscarlo
     (It is around here look let us look for it)
     (…)
     aquí está, mira
     (Here it is, look)

Video timing: 00:19:41
GMA: ¿el jabón?
     (the soap?)
CHI: ahí ta
     (There (it) is)
MOT: **ahí está**, ahí déjalo para que no se caiga
     (There it is, leave it there so that it will not fall)

Video timing: 00:23:22
CHI: abo (= jabón)
     (= soap)
MAM: el jabón **allí** está
     (The soap is there)
CHI: ota? (= ¿Dónde está?)
     (= Where is it?)

MAM: allí está mira amor
    (There it is look love)
    allí está mira
    (There it is look)
    está **atrás del traste**
    (It is behind the plastic bowl)

These examples appear due to the fact that objects can change location. These kinds of interactions are noteworthy because they provide the child with the knowledge that: (1) one single subject can be found in different places, (2) the paradigm of locative adverbs is associated with the verb *estar* and, most important for us, (3) all these changeable properties are used with the verb *estar*.

Set pattern. Following the patterns displayed by the *estar* construction, I documented a second pattern in which the entities referred are part of a set. The utterances' subject here is never the same one, but it always belongs to the same category.

(7)
Context: The child wants to eat grapes and the primary caretaker at the moment helps her to choose. The speaker utters a new utterance just after the child moves her finger to a different grape.

GMA: Esa está **seca**, esa está **fea** (…), esa está **mejor**, esa está **bien**
    (That one is dry, that one is ugly… that one is better, that one is
    fine)

While the contrast given by different predicates in the single entity pattern is due to the change of characteristics of a single entity through time (e.g., water temperature changes while time passes by), the variation here (7) is given among different entities that belong to the same kind or in an abstract category spatial domain linked to space (Delbecque, 1997).

Implicit contrast pattern. Another group of constructions was found in which there was no verbalized open contrast. This group is subdivided into two: utterances that show discursive contrast and utterances that show internal contrast.

Discursive contrast. Even when there is no verbalized contrastive element, it can be argued that these constructions imply a contrast given among the set of discourse or possibilities (propositions) inferred or available in the context. I found this implicit contrast in short utterances, such as: yes-no questions, partial interrogatives, adjectival constructions and finally, ostensive utterances.

Internal contrast. Alternative interrogatives or yes-no questions clearly offer a contrast and belong in our data to the group classified as entities that are part of a set. In contrast, yes-no questions require the listener to decide

between two options, but these are not given explicitly, so I included them in this portion of our study.

(8)
MOM: ¿Estás en la cocina?
      (Are you in the kitchen?)

Partial interrogatives are viewed from pragmatics as formulated from alternative semantics, as a set of propositions; Hamblin proposes that there is a "choice-situation between a set of propositions, namely, those propositions that count as answers to it" (Hamblin, 1973, p. 48). For this reason, the typical example of focus in studies of pragmatics is to highlight the element which answers a *wh*-question (Krifka, 2008). In (9a), the speaker is asking who, of the possible set of individuals that can be found at home, is in that particular location, or (9b) where, among all of the possible frame of locations, the soap is.

(9)
(a)
MOM: ¿Quién está ahí?
      (Who is there?)

(b)
GMA: ¿Dónde está tu jabón?
      (Where is your soap?)

A noteworthy characteristic of these questions is that they are mainly "*where*-questions" (83.33%). The remaining 16.67 % are "*who*-questions" containing a locative element *¿Quién está ahí?* (Who is there?); *¿Cómo está?* and *¿Que tal está?* both meaning (How is it?); and finally, the socially pre-established greeting question *¿Cómo estás?* (How are you?)

Constructions with adjectives are the minority in this pattern as only 126 were found in total. Among these constructions, only 18 appear with no open contrast, which represents 14.28% of the sample, as illustrated by the example in (10).

(10)
Context: Child and grandmother are in front of a bookshelf, looking for a book to read.

GMA: Este está horrible
      (This one is horrible)

The study of adjectives in natural settings led Thompson (1988) to conclude that all adjectives are used to characterize a discourse referent previously mentioned by the predication of its properties, and that adjectives introduce a new discursive referent. This means that adjectives allow a contrast between a set of discursive elements. As the main caretaker in (10), the grandmother talks about a book, and introduces the new element, in order

to discard it from the rest. The speaker in (10) selects a demonstrative, as another way of establishing a contrast; *este* (this one) focalizes a referent in the universe of possibilities.

Ostensives. Ostensives, like any other deictic, locate interlocutors in the spatial-temporal coordinates of the "here" and "now". An ostensive has the function of making attentional focus available to the hearer (for him or her to locate a frame of reference in the universe of possibilities available): "(…) the actual relations among interlocutors and referents, against the horizon of a frame space of possibilities open to them" (Hanks, 1990, p. 262). An ostensive thus implies that there are several possibilities. For this reason, a spot of reference has to be pointed out. In (11) the location of the frame of reference constituted by the photo album distracts the attention of the child, and the mother points out to the element looked for:

(11)

Context: Looking at a photo album.
MOM: Aquí está el caballo
        (Here is the horse)

Internal contrast. The remaining constructions found with *estar* are aspectual constructions, so I considered that they can also be classified in the implicit contrast pattern since a contrast can be found internally.

Aspectual constructions. According to Fernández Leborans (1999), the Spanish gerund combines with *estar* due to its "state" character, related to "transitory" ("state" as also analyzed by Vendler, 1957) and "episodic" values; a progressive construction can also be a state, since the subject of the sentence is limited in regard to time and space.

 (12)
Context: Playing in the living room.

MOM: Mira, está sonando el teléfono, escucha, escucha
        (Look, the telephone is ringing, listen, listen)

In (12) the mother is pointing out to the child that the phone is currently in a state of ringing, as opposed to the silent state in which the telephone is normally.

The copula *ser*. If these contrasts are really clues (or primes) for the acquisition of the verb *estar*, one would expect that they do not appear with verb *ser*. In order to test this, the same data described above was used, but this time I considered the counterpart copula *ser*.

Unlike the entities referred to with the subject of *estar*, which can vary depending on their stage in the process of change, entities referred to with *ser* remain unchanged during child-adult interactions. Not even the child him or herself was characterized with variable attributes when adults used

the verb *ser* to refer to him or her. As presented in the previous section, it was found that the greater frequency of ser constructions' predicates is nominal, often in naming games. Nouns identify the subject, and of course, they do not easily change identity. In fact, there is only one example in which there is a contrast established in the CDS with *ser*, found in Julio's mother speech.

(13)
Context: While playing, the mother puts a bunny mask on a stuffed toy dog, and then she asks the child:

MOM: ¿Qué es? ¿Perro o conejo?
        (What is (it)? A dog or a bunny?)
CHI: Dog
MOM: Sigue siendo perrito
        ((It) is still a doggy)

The contrast, in this case, involves nouns, that are stable categories. What is remarkable is that, for the child, the referent of the subject for verb *ser* did not lose its identity, even with a mask. Two adjacent utterances with *ser* are found only to correct the name of a referent.

(14)
Context: Looking at a picture book.

MOM: No son cochinos, son borregos.
(There aren't pigs, there are sheep)

Furthermore, characterization constructions with *ser* are very rare in the adult speech directed to children, (see also Table 2 above), but frequent with *estar*. Table 3 shows all of the adjectives found with *ser* in the corpus, which reflect stable categories.

Adjectives are rarely used with *ser*, and when so, adults almost never verbally offer a contrastive element. There are very few cases in which an adjacent contrastive pair was found:

(15)
Context: Julio paints.

MOM: ¿Ese qué va a ser? ¿Un globo chiquito o grande?
        (What is that going to be? A small or a big balloon?)

What the mother is discussing in (15) is actually the final state the balloon will have when the painting is finished. A future stable state.

Table 3. *Adjectives found with ser in CDS*

CDS to Flor	CDS to Julio

1. Sí es cierto
  'Yes, (it) is true'
	1. Esos son <u>rebonitos</u>
	  'Those are very pretty

2. El jabón es <u>fuchi </u>para comer
  'The soap is yucky to eat'
	2. Es <u>roja</u>
	  'It is red'

3. Ese es especial
  'That one is special'
	3. Eres <u>chino</u>
	  '(You) are Chinese'

4. ¿Es <u>verde</u>?
  'Is (it) green?
	4. Esta es <u>francesa </u>(A visa stamped in a passport)
	  'This is French'

5. No, es <u>blanco</u>
  'No, (it) is white'
	5. Esta es <u>mexicana </u>(A stamp in a passport)
	  'This is Mexican'

6. Son <u>tres</u>
  '(There) are three'
	6. Qué <u>gacho </u>eres
	  'How mean you are'

7. Ya es lo <u>último</u>
  '(It) is now the last (one)'
	7. No es <u>cierto</u>
	  '(It) is not true'

8. Es <u>todo </u>lo que hay
  '(These) is everything (existing)'
	8. Son <u>padre(s)</u>
	  'There are cool'

	9. Ese gato es <u>espantoso</u> 'That cat is awful'
	10. ¿Ese qué va a ser? ¿Un globo chiquito o grande? 'What is that going to be? A small or a big balloon?'

Discussion

Why do I suggest these variations sets are acquisition clues? Delbecque (1997) proposes that *estar* has an initial locative character that projects metaphorically into adjectives (locations into states) but is always susceptible to change. This means that the predicative associated with *estar* implies a transitional state. Even though the change cannot be perceived easily in some utterances, e.g., *El agua está buena* 'The water is nice', if I follow the entity referred in an interactional context in CDS, the change becomes clearer. It has been argued that variation allows children to assign meaning to a filler in a construction (Savage, Lieven, Theakston, & Tomasello, 2006). The interactional contexts showed here are providing these variations as they assigned different words (fillers) for the same referent in the same construction *estar* (be) + x.

If we consider language acquisition as a process that starts from constructions and that the abstraction process relies on variation that allows recognizing commonalities (Savage et al., 2006), then the natural variation sets described here might be potential candidates to help the child associate *estar* with transitions and *ser* with permanent properties.

CDS offers Spanish-speaking children contrasts associated with the verb *estar* during activities in daily interaction, which are not found in relation with the verb *ser*. As stated, the latter is associated more frequently with nominal, stable grammatical categories. In a study on the early acquisition of adjectives, Álvarez (2004) found that children produced 16.8% of the adjectives of *her corpus* with *estar* and 10.2% with *ser*. Almost half of the adjectives with *ser* are represented by color, the other half belong to the domains of value, human qualities, dimension and physical properties. All represent stable properties. On the one hand, Álvarez's results may reflect the low-frequency adjectives have shown in our data for *ser* in CDS, and on the other, their association to more stable properties.

The patterns found in the section dedicated to qualitative results of this study, resemble the lexical variation sets described by Küntay and Slobin (1996) in Turkish child-directed speech. The patterns in this study belong to the type classified as lexical substitution and rephrasing. According to these authors, variation sets provide children with information to differentiate the lexical categories of nouns and verbs. Unlike Küntay and Slobin's variation sets, the utterances presented here do not necessarily have a constant intention; the mother might have a varying intention (e.g., get in the water, leave the water). However, it will always be *estar* constructions associated with the same entity that are going to change in time (i.e., it changes either state or location). I would like to mention again, that the effects obtained in variation sets produced spontaneously by adults are very similar to the priming effects obtained in experiments (e.g., Leonard, 2011). This tells how important they are for language acquisition.

As I mentioned earlier, there are studies (Requena et al., 2014; Schmitt & Miller, 2007) that prove that young children tend to associate the verb *estar* with referents that have undergone a temporary change (i.e., in the first stage of its acquisition, the verb *estar* is associated with temporal properties of the subject's referent). Apparently, this first stage in the acquisition is due to the fact that the CDS provides information on temporariness associated with *estar* in the everyday contexts that take place during language development. In Langacker (1987) terms, *estar* profiles a process but focuses on a single state of the process which can be grasped in CDS if we study the whole interactional process associated with *estar* in daily activities. We then find the track that provides children the clues (or primes) to identify the cognitive transitional process dimension grammatically correlated to a single verb.

Another key piece that gives us evidence of the importance of the patterns of use in CDS is the way in which children produce their first *ser* and *estar* constructions. To begin with, I found that in child-directed speech, the predicates that combine more frequently with the verb *estar* are locatives, and

those more frequently combined with the verb *ser* are nouns. This also seems to be the preference of combining the copulae with predicates in early acquisition (Ponce- Romero, 2008).

I propose that the single entity pattern and the set pattern provide acquisition clues in which the information about the temporary character of *estar* is provided in everyday interaction. Even in the implicit contrast pattern, child-directed speech seems to provide internal linguistic clues, i.e., discursive linguistic elements that are contrastive enough to help children associate the verb *estar* with its transient properties.

My analysis also provides more evidence that there are differences between adult speech and CDS; according to Clements' (2005) analysis from Alameda and Cuetos (1995) and from CREA (Corpus de Referencia del Español de la Academia Española), *ser* seems to be the default copula for most adjectives, and therefore, *ser* is overall more frequent than *estar* in these corpora based on speech among adults. A different distribution is shown here: in CDS, *estar* is more frequent than *ser* with adjectives (126/17). Moreover, *ser* is not more frequent than *estar*, both copulas show a fairly similar distribution (340 tokens of *ser* vs. 343 tokes of *estar*).

Possible Limitations of the Study and Future Work

One possible limitation of this study might be the sample under study, as only 12 hours of naturalistic data were analyzed; in this regard, I acknowledge that the chances of a sample exceeding or underestimating the lexical specificity rate increase with the reduction in sample size (Rowland, Fletcher, & Freudenthal, 2008). However, I still consider the analysis provided in this study is representative, since it has been tested that patterns can also be well represented in small samples, for instance, Rowland et al. themselves also found out that the child under study based her *wh*-questions on just three lexical frames, and the smaller samples yielded very similar results.

A small sample might also represent a problem when studying child's speech error rates, since errors might or might not appear in the sample collected. I did not have this problem because I did not analyze exceptions in this study, but rather a pattern. However, I might have the same problem as researchers looking for productivity in the sense that our results might lead us to overestimation of the pattern. I expected to reduce overestimation as I am, in fact, analyzing here rates of use of *estar* and *ser* in CDS, but what I provide is a description of a pattern of use in CDS. Nevertheless, in order to overcome the limitation of a small data collection sample, I analyzed two different families whose children actually have very different paths in language development.

Another possible limitation of this study is that I did not directly analyze the children's speech and did not present a particular study contrasting the interactional effects of this variations sets, just as Küntay and Slobin (1996) first described their variations sets. Clearly, I consider it important to

present both child and CDS data together, however, I was able to set the main research question based on the existing literature about child language production and comprehension of *ser* and *estar*.

Nevertheless, there is no doubt that a future analysis of a bigger sample, as well as a test using these variation sets with children that have not yet acquired the difference between the copulae, will provide a stronger support for the proposal presented here.

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