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GRAMMAR AS A JOINT ACHIEVEMENT: CO-CONSTRUCTIONS IN L2 INTERACTIONS

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Abstract: In this study, we present and analyze co-constructions from L2 English data collected at the European School in Luxembourg. Co-constructions are morpho-syntactic structures split across two speakers, in which a second speaker completes a grammatical structure initiated by the first speaker in conversation. The corpus features multilingual 13-14 year old language learners interacting in an English classroom as they work on a collaborative group-writing task. Five types of co-constructions emerge in our data: *locative phrases, want/let, copulas, transitives,* and *nominal compounds*. The analysis centers on the morpho-syntactic structures involved, with consideration of the sequential environment where co-constructions occur. The featured examples complement and expand what we know about co-constructions in two ways. First, the data suggest that L2 language learners engage in co-constructions just as native speakers (NS) do, irrespective of their L2 learner status. Second, L2 co-constructions, similar to previously reported NS examples, appear to orient to both a) the morpho-syntactic constraints of the language used, as well as to b) the social-interactional context surrounding and structuring the task-in-progress such as the back and forth of talk during a collaborative writing task.

Keywords: Multilingualism, sentence processing, projections, covert imitation, situated activity

Özet: Bu çalışmada Lüksemburg'ta toplanan ikinci dil olarak İngilizce verisindeki birlikte oluşturulmuş yapıları sunmaktayız ve incelemekteyiz. Birlikte oluşturulmuş yapılar,ikinci konuşmacının birinci konuşmacı tarafından başlatılan bir dilbilgisel yapıyı tamamladığı iki kişi tarafından paylaşılmış biçim-sözdizimsel yapılardır. Bütünce, çokdilli 13-14 yaşlarında İngilizce sınıfında ortak çalışmaya dayalı bir grup yazma görevi üzerindeki dil öğrencilerinin etkileşimlerini içermektedir. Verimizde beş tür birlikte oluşturulmuş yapı ortaya çıkmaktadır: *kalma durumundaki ifadeler, istemek/izin vermek, bağlayıcılar, geçişliler, isim kökenli birleşikler*. Analiz, birlikte oluşturulmuş yapıların olduğu dizisel çevreleri dikkate alarak, biçim-sözdizimsel yapıları üzerine odaklanmaktadır. Sunulan örnekler birlikte oluşturulmuş yapılar üzerine bildiklerimizi iki şekilde tamamlamaktadır ve genişletmektedir. İlk olarak, veri göstermektedir ki ikinci dil olarak dil öğrenenler, tıpkı anadil konuşucularının yaptığı gibi ikinci dil öğrenme durumlarından bağımsız olarak, birlikte oluşturulmuş yapılarla ilgilenmektedirler. İkinci olarak ise,daha önce sunulan anadil örneklerine benzer şekilde, ortak çalışmaya dayalı bir yazma görevi boyunca ikinci dilde birlikte oluşturulmuş yapılar a)- kullanılan dilin biçim-sözdizimsel kısıtlılıklarına, ve b)- üzerinde çalışılan görevi çevreleyen ve yapılandıran sosyo-etkileşimsel bağlama uyum sağlamaktadır.

Anahtar sözcükler: Çokdillilik, cümle sıralaması, öngörüler, örtülü taklit, yerleşik aktivite

1. Introduction

Co-constructions are morpho-syntactic structures that occur across speakers in interaction. In conversation, a second speaker may complete the structure that the first speaker begins. The basic template of a co-construction in conversation can be represented as in Figure 1, taken from Helasvuo's study in Finnish (2004). A co-construction begins with a *preliminary component*, a first part of a longer grammatical structure. This is potentially followed by a

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short stop (e.g. a pause, an in-breath, or other break) after which a second speaker co-constructs a *final component* to complete the *preliminary component*. The pause between the speakers marked in the diagram is not always necessary: the second speaker may complete the utterance with no stop at all(e.g. De Ruiter et al., 2006).

Speaker A:	*we produce*	← preliminary component
	(.)	pause or element indicating word search
Speaker B:	*a syntactic construction together.*	← final component

Figure 1: Co-construction tructure adapted from Helasvuo (2004)

This structure was first described by Sacks (1967) and later elaboratedon by Lerner (1991, 1996). Different labels have since been used to describe co-constructions: *collaboratively built sentences* (Sacks, 1967), *sentences-in-progress* (Lerner, 1991), *co-constructions* (Ono and Thompson, 1996), *collaborative production* (Local, 2004; Szczepek, 2000), *cognitive completion* (Leudar and Antaki, 1988), *collaborative completion* (Rae, 1990), and *joint construction of turns* (Coates, 1991). In Conversational Analysis (CA), the term *co-construction* might refer to the principle of co-constructing in discourse. However, in this study, *co-construction* refers to the segment of conversation where a grammatical structure spans across separate turns produced by two speakers.

This type of structure exemplifies coordination in everyday conversation where grammatical structures can be co-constructed across speakers. As in other successful joint social actions (e.g. dancing, playing in a musical band, lifting an object), speakers in a conversation must coordinate with the each other to construct grammatically coherent structures. Co-constructions open a unique window onto exploring the intricate relations between grammar and social organization as it occurs in language. Co-constructions reveal how cooperation takes shape between speakers through coordination and can serve as a potential tool in language learning.

In this paper, we explore co-constructions produced by multilingual participants when they produce English talk. We use transcribed data from a database of 70 minutes of video recordings from the European School of Luxembourg and focus on when and in what structures co-constructions emerge, while also situating them in social context. We will discuss our findings in light of previous studies on learner-learner interactions. Co-constructions may function as a means to learn a second language that only arises in group activities.

In the remainder of the introduction, we present an overview of two approaches to language as related to this study. This is followed by a survey of previous studies on co-constructions, both showing where in English and other language structures these occur, and discussing what completions do in interaction.

2. Theoretical Perspectives

Co-constructions arise in interactions between two or more speakers. In this sense, the cooperatively built structures emerge as a result of conversation. On the other hand, these structures have a point of division: the first speaker utters a first component, and at a grammatically appropriate point, a second speaker completes it with a final component. The combination of interaction and grammatical knowledge that comes into play make co-

constructions an ideal bridge between approaches to language from an interactional perspective and approaches that focus on the structure of grammar in language processing and development.

Usage-based models of acquisition propose that language can be learned by constructing structures through language use (Tomasello, 2003). This process involves the integration of cognitive as well as social skills such as joint attention and powerful generalization mechanisms. Manyrelated perspectives reduce language to its morpho-syntactic structure and processes at the expense of all other systematic processes that might affect these structures. While this type of scientific reduction has led to many insights, other research frameworks have shown that morpho-syntax does not comprise a closed system. Rather, this system is sensitive to social and interactional structures operant in a given group of speakers. In other words, language can be seen both as a matter of normative patterns and structural rules as well as a product of socially distributed processes.

In the interactional view, grammatical rules exist in order to organize *actions* in talk. It has been shown that the way a second speaker in a conversation formulates or constructs his contribution depends highly on what has just been uttered by the first speaker. Studies of language in interaction consider a turn constructional unit (TCU) as the relevant unit of analysis through which interaction is negotiated. This unit can be lexical, clausal, phrasal, or a whole sentence (Sacks et al., 1974; Schegloff, 2007). Schegloff, Ochs, and Thompson (1996:2) posit that "grammar is part of a broader range of resources – organization of practices, if you will – which underlie the organization of social life, and in particular the way in which language figures in everyday interaction and cognition."

Co-constructions are interactional achievements, coordinated between speakers (Lerner, 1991). The turn taking format of co-constructions demonstrates what a socially construed, empirically described syntax-for-conversation might look like. From an interactional perspective, co-constructions are precisely possible and perhaps a consequence of the "projectability of possible turn completion in advance of its actual arrival," and grammatical structure provides a key contribution to projectability (Schegloff, Ochs and Thompson, 1996:28). In a study of co-constructions in Dutch telephone conversations, De Ruiter et al. (2006:517) show that "people accomplish this smooth temporal alignment of their talk by anticipating or 'projecting' a moment in time at which transition of speaker/hearer roles will be possible, relevant, and appropriate, allowing them to gear up in advance to begin talking at just the right moment".

Canagarajah (2007) suggests that language cognition is shaped by social practice and that the distinction between comprehension and performance must be revised to consider comprehension as performance. Along these lines but from a psycholinguistic perspective, Pickering and Garrod (2013) propose a model for language processing that involves *covert imitation*. Each time a person hears another person speaking, that person *covertly* reproduces the utterance according to their expectations. Their model also explains the nearly minimal time elapsed between turns at talk (Auer, 2000; Sacks et al., 1974).Namely, the second speaker covertly formulates the expected completion of the first speaker's utterance as the utterance unfolds. Gregoromichelaki et al. (2011:216) claim that "what underpins the smooth shift in all joint endeavors of conversation is the incremental, context-dependent processing shared by parsing and generation, and the tight coordination thereby achievable".

Co-constructions are central to conversation. Szczepek (2000) reports 200 instances of co-constructions in 40 hours of English conversation, which calculates to an average of 5 per hour. Purver et al. (2009) found that 20% of dialogue studied from the British National Corpus consists of co-constructions, 3% of which represent co-constructions across speakers. In a study on adult learner language in English, Pica et al. (1995) find that co-constructions occur almost eight times more often in L2 learner-learner interactions than in L2 learner L2 - native speaker interactions. These co-constructions seem to be part of the core of how speakers organize conversation.

3. 1. Co-constructions: Structures

The grammatical components in co-constructions serve to build interactions. In this sense, grammar can be considered as an interactional resource in conversation. Studying the phrasal units involved in co-constructions sheds light on both the speakers' knowledge of grammar as well as the structure of turns in interaction. Lerner (1991) claims that co-constructions occur most often in certain constructions over others. Speakers often organize their co-constructions around clauses. These syntactically defined structures include quotation beginnings, parenthetical inserts, list structures, and more typical structures such as "instead of X –Y" or "if X - (then) Y" as in example (1) below (from Lerner (1991:245). In this example, Rich begins the IF-THEN phrase, completed by Mike. In this example, the co-construction happens to overlap with the final component provided by the first speaker, but the split occurs after the if-clause (i.e. *if they come en pick it up*).

(1) Rich: if they come en pick it up it'll co[st yah
Mike: [they charge yuh

The first component specifies, or projects, a space for the second component of a co-construction to occur (Lerner, 1996). However, these structures seem to be language-specific. In the IF-THEN clause in Japanese, the IF element occurs at the end of the sentence, making projection difficult (Lerner and Takagi, 1999). Japanese co-constructions occur in other language-specific structures or in contexts of interactional elements (e.g. pauses)that do not relate to grammatical structure specifically (Hayashi and Mori, 1998; Hayashi, 1999; Thompson and Couper-Kuhlen, 2005). Furthermore, Japanese speakers produce co-constructions at points in conversation where no projection occurs. Hayashi (1999) posits that because co-constructions depend on grammatical structures, the form these take on an interactional level would be different in different languages.

Helasvuo (2004) investigates co-constructions in Finnish, which has rich inflectional morphology, sometimes with agreement spanning the whole sentence. She identifies four types of co-constructions in her data: transitives, copulas, adjective-noun sequences, and compound nouns. She shows that, in Finnish, co-constructions can occur at syntactic boundaries (e.g. transitives) but also at word boundaries (e.g. compound nouns).

Phrasal boundaries serve as crucial indicators for language learning. Studies on first language acquisition have shown that children operate on item-based constructions before learning to speak like adults (Tomasello, 2003). These constructions can take the form of *Can you…, Look at…*, *It's…,* and *I want to…*. While previous studies have focused on first language acquisition, we predict that boundaries in co-constructions in learner language also coincide with otherwise common item-based constructions.

Co-constructions are universal and occur in interactions in any language. However, the particular grammatical resources used to organize them are language-specific. These structures thus seem key to conversation but speakers do not violate grammatical rules in their organization. In this study, we will explore the grammatical structures that L2 learners of English use as resources in co-constructions during group work.

3. 2. Co-constructions: As resources

Co-constructing another speaker's utterance could signal agreement or it could be used to prevent disagreement. This interactional resource can also be used to collaborate with a current speaker (Lerner, 1991:244). This collaboration can occur when explaining something to a third participant (Lerner and Takagi, 1999:66) or when negotiating during group work. In an analysis of electronic chat interactions, Howes et al. (2009) showed that co-constructions can represent the agreement of two speakers on a topic and can even be used as a tool to exclude a third participant that might have a differing opinion.

Co-constructions can have the effect of building coalitions. When a speaker completes another speaker's unfolding grammatical structure, it could cue cohesion or the building of coalitions in the group (Sacks, 1967). It shows that the second speaker is oriented towards what the first speaker is saying. This is particularly frequent during group work sessions. Dìaz et al. (1996) show that speakers use co-constructions as a resource to formulate a statement collectively.

Importantly, it has been argued that this type of negotiation in second language interaction brings about language learning (e.g. Mackey and Philip, 1998). Pica et al. (1995) analyses adult learner-learner L2 and learner L2- NS interactions in English focusing on the negotiation among the participants in the producing of a modified output. Co-constructions represented 3.9% of the total number of utterances in learner-learner dyads, while only .53% of the utterances in learner-NS dyads (Pica et al., 1995:31). This high number of completions in learner-learner interaction is potentially key to understanding the importance of group work in language learning.

Swain and Lampkin (1998) present data from 11 to 13 year olds in a French immersion class in Toronto who are asked to write a story using details from an audio recording or a set of drawings. They found that the students develop a storyline together, using co-construction to write out the meanings they wish to express. Co-constructions thus function as resources to both learn an L2 as well as to communicate with other group members.

Also taking an interactional approach to second language acquisition, Pochon-Berger (2011) studies interactions of 13-year old students in a French as a second language classroom in the German-speaking part of Switzerland. In her data set, the students used their mutual L1 German to negotiate the preparation of the task, which was to be carried out in French. She observes frequent co-constructing of turns and general alignment of students to each other's projected statements.

In current study, we use data from a group of multilingual students of the European School of Luxembourg. We adopt an emergentist view on language acquisition and focus on the type of grammatical structures in which co-constructions emerge, especially in light of previous studies in other languages. However, we also situate these in interactional terms within the context of a language-learning classroom. We show that co-constructions serve as a tool to

structure interaction in a common second language, highlighting the dynamics of joint action in group-focused activities.

4. Data

Luxembourg is a multilingual country that borders France, Germany, and Belgium. It has three official languages (Luxembourgish, French, and German) and half the resident population holds foreign nationality (Statec, 2013). The current data from the European School in Luxembourg is part of a bigger ESL corpus collected in Luxembourg (*The International English Corpus,* Ziegler, Sert and Durus, 2012). Each student at the European School is registered in one of several different language sections of the European school (e.g. Finnish, Greek, German, French) and does not necessarily share the multilingual repertoire of his or her classmates or teacher. The students often come from multilingual families (e.g. Mother: Portuguese, Father: Croatian). In order to participate in the English as a foreign language course, the child must be fluent in English at an intermediate to advanced level as assessed by previous courses and school-internal tests.

The 70 minutes of transcribed corpus used in this study was recorded in a classroom setting. The teacher is a native English-speaker with proficient knowledge of French and Spanish. He teaches English through reading and group activities to a class of 24 plurilingual learners who are between 13 and 14 years old. The class is divided into five groups and the group presented here comprises of five boys: Bojan, Chris, Kosta, Fritz, and Pedro.

The recordings have been transcribed and coded for instances of co-constructions across speakers. We only include co-constructions where the first segment is a fragment of a larger grammatical structure and is completed either partially or totally by a second segment uttered by a second speaker. A second researcher cross-checked the coding of co-constructions. Our analysis focuses on group-work, during which four or more subjects seated around a table collaborate on achieving a given task. The students interact with each other without input from the teacher.

The examples presented come from two sessions (approximately 35 minutes each). In session 1, the *Furniture* session, the participants are given a sheet with pictures of different pieces of furniture and are asked to both name them and determine their material. In session 2, the *Teddy Bear* session, the participants are asked to tell and write down a story based on the story of several pictures given on a sheet of paper (i.e. a ring, a teddy bear, and a passport). This has been referred to as "conversational writing" (Krafft and Dausendschön-Gay, 2000).

In this data set, one participant is always the designated writer. The other group-members often orient themselves towards the writer who takes down their formulations to eventually present to the teacher.

5. Analysis

We found 18 instances of co-constructions in our corpus. We follow Helasvuo (2004) and Ono and Thompson (1996) and focus on the place within the grammatical structures where co-constructions occur. In the following sections, we present the five types of co-constructions found in our data, organized according to the grammatical structure: (3.1) *locative phrases,* (3.2)*want/let,*(3.3)*copulas,* (3.4) *transitives,* and (3.5) *nominal compounds*. Half of co-constructions occur during writing (i.e. when a participant repeats what he is writing, and another completes with the continuation). The other half occurs when the

students are either preparing possible answers to their assignment or discussing the possible answers.

5.1.Locative Phrase (to + location)

Locative phrases express spatial location and often begin with the preposition 'to.'In these co-constructions, the first speaker signals the beginning of a locative with the first constituent 'to,' often uttered after a movement verb such as 'to go.' The second speaker completes the co-construction with a nominal phrase expressing a location, usually a noun expressing a country or city.In example (2), the participants develop a story about a teddy bear that needs to get a passport in order to travel abroad. Both examples below come from the *Teddy Bear* session.

(2)
1 Bojan: the passport to go to Hawaii. they marry with a ring-
2 Chris: yee:::h
3 Kosta: no=no=no=no=no. wait. He wants to go to äh::
→ 4 Pedro: Ha[wai'i
5 Kosta: [he wants to go to united

Kosta begins an utterance in line 3: 'he wants to go' followed by 'äh::' indicating a word search (Brouwer, 2003).This word search with the hesitation marker invites the completion of the structure by a second speaker. Pedro completes it with 'Hawai'i.' Kosta repeats his utterance from line 3in line 6,and provides an alternate ending, ignoring Pedro's co-construction.

In example (3), Bojan is the designated writer. Bojan elicits a co-construction as he begins writing the text by saying 'I'm going to.'Chris completes this locative phrase with 'America.'

(3)
1 Pedro: yeah yeah yeah yeah.=
2 Fritz: =okay.
3 Bojan: I'm going to
→ 4 Chris: America
5 Fritz: to ma=to marry my girlfriend Mary

As in the example (3) above, the first speaker cues the beginning of a locative phrase with the preposition 'to' after a movement verb, and the second speaker completes the structure with a noun referring to a location (i.e. America). The speakers ratify the co-construction and Fritz continues with 'to ma=to marry my girlfriend Mary.' This utterance in line 5 could be considered as either an *alternative completion* or an *expansion* to line 3. If we consider line 5 an *alternative completion*, then the beginning in line 3 would be considered as an expression of future tense, completed in line 5 with a verbal complement.

An *expansion* differs from the type of co-construction discussed here. In these cases, the second component expands an already complete grammatical construction (Ono and Thompson, 1996).In *expansions*, the first speaker utters a complete and grammatically autonomous clause (i.e. it can stand alone as a structure or complete utterance). The second speaker expands the construction with conjunctions or relative clauses. An example of an expansion from our corpus is presented in (4).

(4)
1 Chris: he has a big bed with a window
2 Fritz: and there is a big window at the left side.

Chris begins with a construction that can stand alone in line 1. Fritz expands this in line 2 with a conjunction and another clause. While expansions can be considered as a subtype of co-constructions, speakers add to rather than complete constructions.

5.2. Want/Let +(to)

The 'want to'/'let to' structure introduces an infinitival phrase (*to* + *infinitive verb*). In the examples below from the *Teddy Bear* session, the second speaker or the first speaker may utter *to* after the verb.

In example (5), Chris' begins with 'I'm going to America because I want.' Fritz completes the utterance with 'to marry Mary, my girlfriend.' The interaction in this example takes place just prior to example (4) above.

(5) 1 Chris: äh:: I=m going to America because I want
→ 2 Fritz: to marry Mary my girlfriend ha=ha=ha

In example (6), Bojan writes as Fritz begins to repeat the utterance in line 1. Kosta completes Fritz's segment 'letting me to' with 'travelling to America.' In line 2, the co-construction completes the segment began by the verb *let*. The non-finite verb form 'travelling' is not grammatical in this context (i.e. 'travel' would be the grammatical form), and represents evidence of learner language within the group. This shows that co-constructions across learners are possible with prescriptively incorrect structures.

(6) 1 Fritz: I want to to thank you again for letting me to am:::
→ 2 Kosta: travelling to America to my father
3 Chris: na na.

Line numbers in example (7) follow those in example (6), as they occur in this order in the corpus. In line 4, Bojan utters the beginning of the construction as he writes, using a rising intonation. This intonation contour has previously been observed in group work, where participants work on a *written text of draft-so-far* (Meyer, 2010:116). Chris completes the construction with the second component 'thank you' in line 5, which is repeated in line 6 by Bojan as he continues to write.

(7) 4 Bojan: I want you
→ 5 Chris: thank you.
6 Bojan: thank you.
7 Fritz: you for letting me go to America to marry my girlfriend Mary

5.3.Predicate

In what Helasvuo (2004) calls *co-constructing a predicate*, speakers complete transitive sentences with objects of the predicate. Unlike the previous two types of co-constructions presented, the predicate co-construction does not have any lexically filled slots. The split occurs between the verb and the object or predicate. In both examples below, multiple parties provide candidate co-constructions (including the first speaker) for the same structure, often overlapping with each other.

The first segment consists of at least a transitive verb and the second consists of a direct object of that verb. The examples below come again from the *Teddy Bear* session, where the group is creating a story as Bojan writes it down. In the sequence prior to line 1 in example

(8), Bojan reads aloud as he writes a sentence. The beginning of the structure ends with ‘to marry, ’as they formulate why the teddy bear would like to travel. Since Bojan is writing, he is repeating the segment established thus far in line 3, repeating the elements ‘to’ and ‘my’ as he is writing the segment down. In line 4, Fritz completes the transitive infinitival verb ‘to marry’ with the object ‘my wife Mary’, and he recycles the ‘my’ from the previous utterance in line 3.

(8)	1	Chris:	no no [no stop
	2	Fritz:	[marry
	3	Bojan:	to to marry my my
→	4	Fritz:	my wife [Mary
	5	Chris:	[my
	6	Bojan:	my wife
	7	Chris:	no.

Chris does not accept Fritz’s candidate co-construction, and says ‘no’ in line 7. Example (9) is the continuation of the excerpt in (8), where Fritz offers another co-construction, *my girlfriend*, after repeating the original segment ‘to marry my’, in line 6.

(9)	8	Fritz	: to marry my girlfri[end	
→	9	Chris	:	[bearfriend
	10	Bojan	:	[my <<french> déesse>

Chris and Bojan offer another candidate co-construction in lines 9 and 10, respectively. Line 10 is an example of a multilingual co-construction (Ziegler, Durus and Sert, 2013). Bojan completes ‘to marry’ with a multilingual nominal phrase, ‘mydéesse’, though he maintains the English determiner ‘my’. Interestingly, in the previous line, Chris does not include the determiner ‘my’ when uttering ‘bearfriend’. The two co-constructions in line 9 and line 10 complete the previous segment at two different points, the first after the determiner, and the second after repeating the determiner.

5.4. Copula

A copula is a grammatical element (in English, the verb *to be*”) that serves to link the subject of a sentence with its predicate. In these co-constructions, a second speaker completes a copula construction. The following examples are drawn from the *Furniture* recordings where the participants name pieces of furniture and their material. In example (10), Kosta refers to a piece of furniture that looks like a bookshelf. In line 2, he says ‘it’s a’, and pauses for one second while looking over at Fritz, possibly suggesting a word search. Fritz completes the utterance with ‘shelf’ after a pause.

(10)	1	Kosta:	it’s a bookshelf, but it doesn’t look like a bookshelf.
	2	Kosta:	it’s like a- (1.0)
→	3	Fritz:	shelf;
	4	Kosta:	<<german> schrank>

The ratification of Fritz’s co-construction is particular to the multilingual nature of the participants in the discussion. Kosta rejects Fritz’ co-construction and offers an alternative noun in German (i.e. *schrank*). In this example, we also see how co-constructions could be used as multilingual resources in a learning environment (Ziegler et al., 2012). The space left open for a co-construction can open a slot for a multilingual co-construction (i.e. not in the

target language). This is in line with the suggestion (Swain and Lapkin, 1998:321; Wootton, 2005:13) that co-constructions can be used as a resource for language learning.

A second example of copula co-constructions occurs during the same session. In (11), Chris begins with a disagreement: 'yeah, but it's'. This is immediately completed by Pedro who says 'yeah wood'(without pausing) in line 3.

(11) 1 Kosta: <<all> no maybe:>(--) think of it
it can=t be(.) actually wood(---)
((points the picture))
it could be(.) plastic=
2 Chris: yeah but it=s
→ 3 Pedro: =yeah wood;
4 Fritz: wood and leather(-) oka:y,

Fritz ratifies Pedro's co-construction in line 4by showing agreement. He repeats Pedro's co-construction and expands it. He completes the copula phrase began in line 2, but also elaborates the first completion provided in line 3 with a nominal phrase. In this co-construction, the structure turns into a list-structure, discussed in Lerner (1991),in line 4. In this case, Fritz expands the proposed co-construction into a list by adding to it.

5.5. Nominal phrases

The split in this co-construction occurs in a nominal compound, either as a *characterizing phrase* (Helasvuo, 2004, p1325) that consists of a modifier (i.e. adjective) completed by a head noun, or a compound noun phrase. In (12), Kosta describes a piece of furniture, and is in the process of describing the material. He begins in line 3 with 'grey' and Pedro completes this phrase with 'wood' in line 4. Kosta immediately responds with an alternate co-construction 'plastic' in line 5. Meyer (2010:88) observes that "a social practice relevant for the investigation of sequences of conversational writing is what Olsher has labeled *trying out candidate draft segments* (Olsher, 2003), which make relevant a range of next-turn responses, such as *repetition, yes-type acceptance*, and *alternative formulations*. (Olsher, 2003:257)."

(12) 1 Fritz: wood and glA[SS?
2 Chris: [<<len>wood and glass>
(1.0)
3 Kosta: no: i think this is just grey (.) grey
→ 4 Pedro: wo:od no
5 Kosta: plastic (-)

In (13), during the same exercise as above, Pedro is proposing that some material is a mixture of wood and something else. He begins in line 1 by saying 'wood and' which Fritz completes with 'stuff', in line 2. This co-construction is not ratified, but a long silence follows as the participants look at the picture to determine the material of the furniture.

(13) 1 Pedro: =wood and
(0.5)
→ 2 Fritz: stuff;
3 (0.6)

Despite the conjunction in line 1, this co-construction is not an expansion, because the conjunction occurs at the end of the first segment. The first speaker (i.e. Pedro) utters a grammatically incomplete segment, ending with 'and'. The word 'stuff' often occurs as a generalized list completer (Jefferson, 1974:69). Pedro begins the list with 'wood and' and additional items are listed by the second speaker. Lerner (1991) suggests that lists constitute one of the common structures in which co-constructions emerge. Fritz, as the one writing down the group's answers in this session, might feel entitled to close the sequence, even without a valid candidate.

6. Discussion

6.1. Constructing Grammar in Interaction

The different co-constructions found in our corpus are summarized in Figure 2. We have extracted a total of eighteen co-constructions in these categories, and seven otherco-constructions that do not fall into these categories and are also not expansions or multi-clausal co-constructions. Given that our dataset comprises 70 minutes, this equates to over fifteen co-constructions per hour in this group of five students. This number is higher than that of previous studies that have shown up to 5 co-constructions per hour (Szczepek, 2000). This finding supports the hypothesis that co-constructions serve as key resources in second language learning in interaction.

Type	1st Segment	2nd Segment	# of Instances
Locative	*to*	*N [location]*	*2*
Want/Let	*to want/let*	*to V*	*3*
Predicate	*V*	*N*	*5*
Copula	*is*	*ADJ*	*5*
Nominal	*ADJ*	*N*	*3*

Figure 2: The five different types of co-constructions found in the data

Helasvuo (2004) finds four types of co-constructions in her data: predicate constructions, copula constructions, nominal constructions, and lexical constructions. The last type, where compound words are constructed across turns in Finnish does not occur in our corpus. This could be due to the typological differences between Finnish and English. English grammar does not use compounding as frequently as Finnish, a relatively morphologically rich language.

As in the Finnish data, our co-constructions involve single clauses, and do not occur across clause boundaries. We did not find more complex compound clause co-constructions of the sort presented in Lerner (1991) (e.g. IF X - THEN Y). Helasvuo (2004) argues that, in Finnish, the first component of multi-clausal phrases does not constrain the final component enough for these types of co-constructions to be common in her data. She claims that in simple clauses, the first and second parts of the co-constructed phrase are controlled by the syntactic phrase they occur in. In other words, when subjects complete simple clauses, each speaker must monitor local syntactic dependencies in order to propose their candidate co-constructions.

Though our corpus was an English corpus, it is not representative of the language of adult monolingual English speakers. The lack of multi-clausal co-constructions could possibly be due to the fact that our learners use a more simple English than those of corpora used in previous studies on native English. While the students are proficient in English, it is their second, third or even fourth language. Alternatively, the lack of multi-clausal co-constructions could be due to the setting where these recordings were collected. Namely, the students had a limited time to answer the questions in a problem-solving setting and thus avoided longer grammatical structures.

The only instance of a multi-clausal co-construction in our corpus involves the passive construction. This occurred when Kosta begins the construction with the patient followed by the passive form of *hired* in line 1 in (14). Fritz completes it with the agentive *by* phrase in line 2 with no pause between the two speakers. This example is the most structurally complex of the co-constructions occurring in our data.

(14) 1 Kosta: okay, the:: (.) my friend was hired
→ 2 Fritz: by the police hehehe.

The *locative*, the *want/let construction*, and the *copula* co-constructions are all partially filled constructions. Each one has a lexically explicit first component (uttered by the first speaker) and the second speaker then fills in the rest. The only exception is the *to* in the *want/let construction*, but this obligatory *to* uttered by the second speaker is followed by an empty slot which he fills in. These types of partially-filled constructions are reminiscent of item-based constructions discussed within the context of first language acquisition (Tomasello, 2003). The students in this study use these item-based constructions to complete each other's English utterances. In fact, the participants most often co-construct verbal constructions (i.e. *predicate construction*, *copula construction*). In the copula co-construction, *it's* ____ is a structure with a fixed first component and a convenient break point for a second speaker to co-construct the complete structure. Importantly, the students rarely produce ungrammatical structures. Perhaps writing together and as one voice allows them to constrain each other's grammar.

The conversational data presented in this study supports the claim that co-constructions allow for two speakers to co-construct a grammatical structure, especially as a resource for group work (discussed in the next section).We have explored the grammatical points in which these co-constructions occur. We also observe that co-constructions in our data are built with minimal delay between turns, suggesting that the final component might exist in the second speakers mind already as a covert imitation or continuation of the first speaker's utterance, even before the first component has been completely uttered (Pickering and Garrod, 2013).

6.2.Co-constructions as a Resource in language learning

Co-constructions occur frequently in situated activities where the participants in a conversation aim to produce utterances as one voice. In our corpus, the students work on an assigned problem as a team, and building a coalition allows them to orient to each other in building a storyline. The data comes from two recordings where the students are engaged in writing activities: in the *Furniture* recording, they described pieces of furniture; and in the *Teddy Bear* recording, they invented a story from a set of given pictures.

In examples (3), (7), and (8), Bojan elicits the co-constructions that occur, as he is the person in charge of writing down the text. The *writing of a text of draft-so-far* (Meyer, 2010) creates points in conversation particularly prone to co-constructions across participants. This is also

reported in a study on group work in a language classroom by Pochon-Berger (2011). In her study of a Swiss classroom, she shows that the learners work together to formulate directions on a map. In another study, Swain and Lapkin (1998:98) posit that *talking it through* underlies the benefits of collaborative writing for second language learning.
Co-constructions and negotiation in conversation is thus not a by-product of language learning, but a means through which the participants in their study learned their L2. This claim was supported by language tests Swain and Lapkin (1998) administered before and after group work sessions. While we did not test for changes of language proficiency in the current study, the large number of co-constructions in our dataset is consistent with the hypothesis that co-constructing utterances, or striving to be one voice (Dìaz et al., 1996), may accelerate language learning.

7. Conclusion

In this first such study on multilingual learners of English, we describe co-constructions as a device available and accessible to the learner. We show that multilingual participants in conversation are capable of doing this complex structure in interaction even in an additional language or across languages.

We provide examples of co-constructions, or grammatical structures that are produced across speakers sequentially. Given the high number of co-constructions in the classroom setting, these interactional sequences seem to be key to second language learning. Co-constructions occur irrespective of language and background and comprise a fundamental aspect of conversation regardless of the linguistic backgrounds of individuals speaking a foreign language.

We used structural properties to identify these sequences (De Ruiter et al., 2006). We describe different grammatical units where co-constructions occur in our group of young learners of English, and how these can be used as resources to structure conversation in group work as has previously been observed (e.g. Lerner, 1991; Dìaz et al., 1996; Howes et al., 2009). Our analysis suggests that multilingual learners use co-constructions as a resource to formulate sentences together. Co-constructions in our corpus were either partially lexically filled or lexically constrained (e.g. for part of speech). However, more data is needed to determine the contributions of different factors (e.g. multilingual repertoires) on the types of grammatical structures in which splits can occur and how these correlate with proficiency levels.

This study provides data from an understudied population with multilingual repertoires, showing that co-constructions occur despite communication and interaction in an additional and shared language. It also highlights the importance of interactive structures such as co-constructions that could aid and possibly reveal certain conversational and cognitive mechanisms required for learning a second language. Seen as a situated activity, these structures in communication can be studied further in language learning contexts to explain how subjects develop language and grammar in interaction. As a cognitive product, experimental protocols aimed at understanding how speakers parse and produce utterances in interaction can compliment corpus studies. Future studies could look into why learners focus on these particular structures over other more complex ones found in native language corpora.

Our findings support a model of interaction that includes joint construction of grammar following another person's utterance as it is produced. Syntax is shared, or predicted, by each speaker and this allows utterances to be jointly produced.

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References

Auer, P. (2000). On-line Syntax – oder: was es bedeuten könnte, die Zeitlichkeit der mündlichen Sprache ernst zu nehmen. *Sprache und Literatur, 85*, 43-56.

Brouwer, C. (2003). Word Searches in NNS: NS Interaction: Opportunities for Language Learning?*The Modern Language Journal 87(4),* 534-545.

Canagarajah, S. (2007). Lingua Franca English, Multilingual Communities, and Language Acquisition. *The Modern Language Journal, 91,* 923–939.

Coates, J. (1991). Women's cooperative talk: A new kind of conversation duet? In C. Uhlig & R. Zimmerman (Eds.) *Proceedings of the Anglistentag 1990 Marburg*, (pp. 196-211). Tübingen: Max Niemeyer, Verlag.

De RuiterJ. P., Mitterer,H. & Enfield,N. J. (2006). Projecting the End of a Speaker's Turn: A Cognitive Cornerstone of Conversation. *Language, 8(3),* 515-535.

Díaz, F., Antaki, C. & Collins, A. F. (1996). Using completion to formulate a statement collectively. *Journal of Pragmatics, 26,* 525-542.

Gregoromichelaki, E., Kempson, R., Purver, M., Mills,G. J., Cann, R., Meyer-Viol,W. & Healey, P. G. T. (2011). Incrementality and intention-recognition in utterance processing. *Dialogue & Discourse 2(1),*199-233.

Hayashi, M. &Mori, J.(1998). Co-construction in Japanese revisited: We do finish each other's sentences. In N. Akatsuka, H. Hoji, S.Iwasaki & S. Strauss (Eds.), *Japanese/Korean Linguistics* 7,(pp. 77-93). Stanford: CSLI.

Hayashi, M.(1999). Where Grammar and Interaction Meet: A Study of Co-Participant Completion in Japanese Conversation. *Human Studies 22,* 475-499.

Helasvuo, M. L. (2004). Shared syntax: the grammar of co-constructions. *Journal of Pragmatics 36*, 1315–1336.

Howes, C.,Healey, P. G. T. & Mills, G. J.(2009). A: An Experimental Investigation into. . . B: . . . Split Utterances. *Proceedings of SIGDIAL 2009: the 10th Annual Meeting of the Special Interest Group in Discourse and Dialogue*, pp. 79–86, Queen Mary University of London.

Jefferson, G. (1974). Error correction as an interactional resource. *Language in Society, 3(2),* 181-199.

Krafft,U.&Dausendschön-Gay,U. (2000). Systèmes écrivants et la répartition des rôles interactionnels.*Studia Romanica Posnaniensia*, 26,199-212.

Lerner, G. H. (1991). On the syntax of sentences-in-progress. *Language in Society, 20*, 441-458.

Lerner,G. H. (1996). On the "semi-permeable" character of grammatical units in conversation: conditional entry into the turn space of another speaker. In E. Ochs, E. A. Schegloff &S. A. Thompson (Eds.) Interaction and Grammar. CUP.

Lerner, G. H.& Takagi, T. (1999). On the place of linguistic resources in the organization of talk-in-interaction: a co-investigation of English and Japanese grammatical practices. *Journal of Pragmatics, 31*, 49–75.

Leudar, I. & Antaki,C. (1988). Completion and dynamics in exlanation seeking. In C. Antaki (Ed.) *Analysing Everyday Explanation*, (pp. 145-155). London: Sage.

Local, J. (2004). On the interactional and phonetic design of collaborative completions. In W. Hardcastle & J. Beck (Eds.), *A Figure of Speech: A Festschrift for John Laver*. Lawrence Erlbaum, Mahwah, NJ.

Mackey,A. & Philp,J. (1998). Conversational interaction and second language development: Recasts, responses, and red herrings? *The Modern Language Journal8(2),*338-356.

Meyer, A. (2010). *Expert and novice identities in peer interaction in a Luxembourg fundamental classroom*. Unpublished doctoral thesis. University of Luxembourg.

Olsher D. (2003). *Collaborative Group Work in Second and Foreign Language Classrooms: Talk, Embodiment, and Sequential Organization*. Unpublished doctoral thesis. University of California, Los Angeles, Los Angeles.

Ono,T.& Thompson, S. A. (1996). Interaction and Syntax in the Structure of Conversational Discourse: Collaboration, Overlap, and Syntactic Dissociation. In E. H. Hovy,& D. R. Scott (Eds.), Computational and Conversational Discourse: Burning Issues - An Interdisciplinary Account. Springer, Berlin.

Pica, T., Lincoln-Porter, F., Paninos, D. & Linnel, J.(1995). What Can Second Language Learners Learn from Each Other? Only their Researcher Knows for Sure. *University of Pennsylvania Working Papers in Educational Linguistics,1(1),* 1-36.

Pickering, M. J.&Garrod,S.(2013). An integrated theory of language production and comprehension. *Behavioral and Brain Sciences*, *36(4),* 329-347.

Pochon-Berger E. (2011). A participants' perspective on tasks: from task instruction, through pre-task planning, to task accomplishment. *Novitas-ROYAL(Research on youth and language), 5(1),* 71-90.

Purver, M., Howes, C., Healey, P. G. T. & Gregoromichelaki,E. (2009). Split Utterances in Dialogue: a Corpus Study. *Proceedings of SIGDIAL 2009: the 10th Annual Meeting of the Special Interest Group in Discourse and Dialogue*, pp. 262-271, Queen Mary University of London.

Rae, J. P. (1990). Collaborative Completions in Advisory Exchanges. *International Pragmatics Association*. University of Barcelona.

Sacks, H. (1967). *Lectures on Conversation*. Wiley-Blackwell.

Sacks, H., Schegloff, E. A. &Jefferson, G. (1974). A simplest systematic for the organization of turn-taking for conversation. *Language, 50(4)*. 696-735.

Schegloff, E. A. (2007). *Sequence Organization in Interaction: A Primer in Conversation Analyis*. Cambridge: Cambridge University Press.

Schegloff, E., Ochs, E. & Thompson, S. A.(1996). Introduction. In E: Ochs, E. A. Schegloff & S. A. Thompson (Eds.) *Interaction and Grammar*. Cambridge University Press.

Swain, M. &Lapkin,S.(1998). Interaction and second language learning: Two adolescent French immersion students working together. *The Modern Language Journal, 82(3),* 320-337.

Statec. (2013). Population structure. Online. http://www.statistiques.public.lu/stat/TableViewer/tableView.aspx?ReportId=384

Szczepek,B.(2000). Formal Aspects of Collaborative Productions in English Conversation. *InLiSt Interaction and Linguistic Structures*, No. 17.

Thompson, S. A. & Couper-Kuhlen, E. (2005) The clause as a locus of grammar and interaction. *Discourse Studies, 7(4/5),* 481-505.

Tomasello, M. (2003). *Constructing a Language: A Usage-Based Theory of Language Acquisition.* Harvard University Press.

Wootton, A. J. (2005). *Interaction and the development of mind*. Cambridge: Cambridge University Press, .

Ziegler, G., Sert, O. & Durus,N.(2012). Student-initiated Use of Multilingual Resources in English Language Classroom Interaction: Next-turn Management. *Classroom Discourse, 3(2),*187-204.

Ziegler, G., Durus, N.& Sert, O. (2013). Plurilingual Repertoires in the ESL Classroom: The Case of the European School. *TESOL Quarterly. 47(3)*, 643-650.

Transcription Conventions

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GAT (Gesprächsanalytisches Transkriptionssystem) transcription system.

(.)	micropause
(-), (--), (---)	pause in the talk between 0.25-0.75 seconds, shorter than 1 second
(2.0)	time gap in tenths of seconds
=	latching between utterances
[ ]	overlapping and simultaneous talk
capitals	emphasis
<<p>	piano, soft speech
<<pp>	pianissimo, very soft speech
<<all>	allegro, rapid speech
<<len>lento, slow speech	
<<dim>	diminishing speech
<<acc>	accelerating speech
<<rall>	slowing down speech
?	rising intonation turn
,	rising intonation turn, weaker than a '?'
;	falling intonation turn, weaker than a '.'
.	falling (final)intonation turn
'so	falling intonation inter-turn
’so	rising intonation inter-turn
-so	same intonation inter-turn
ˇso	falling/rising intonation inter-turn
ˆso	rising/falling intonation inter-turn
: :: :::	prolongation of sound; multiple colons indicate prolonged sound
.h, .hh, .hhh	speaker in-breath; the more h's, the longer the breath
h, hh, hhh	speaker out-breath
( )	unclear fragment
(guess)	the transcriber's best guess at an unclear utterance

<<coughing> yes> coughs the speech/ says something during cough

Ha ha, he, he laugh

-> transcript lines in focus