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Hanging Topic:
a multimodal discourse analysis in spoken English

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Abstract

Il presente lavoro di tesi propone un'analisi linguistica su un caso particolare di costruzione sintattica marcata nella lingua inglese: l'Hanging Topic (HT), conosciuto anche come Tema Sospeso.

Nel corso delle indagini necessarie alla stesura di questo lavoro è emerso che costrutti di questo tipo sono per lo più appartenenti al linguaggio orale per via della loro caratteristica componente prosodica. La maggior parte degli esempi di Hanging Topic appartiene, quindi, al parlato. Per lo svolgimento di questo lavoro è stata, dunque, necessaria la presenza di partecipanti nativi inglesi.

La scelta dell'argomento è motivata da un interesse nutrito nei confronti della funzione sinergica che il contesto svolge, specialmente in questo caso, con la lingua, rendendo possibile la produzione e la comprensione di costrutti che a volte appaiono ai parlanti come sintatticamente 'atipici'. Comunque, nel corso di tale indagine, non è stato chiesto il giudizio diretto dei parlanti cui sono stati sottoposti a questo tipo di costrutto. Uno degli scopi che questo lavoro si prefissa è dimostrare il contorno prosodico caratterizzante di questa costruzione sintattica in contesti opportuni, chiarendone le caratteristiche.

Attraverso gli studi condotti in precedenza da Cinque (1982) e Benincà (1988), quest'ultimo lavoro ripreso poi in Benincà e Poletto (2004) e successivamente da Belletti (2009), è stato possibile elencare gli elementi sintatticamente caratterizzanti di Hanging Topic. Inoltre, questo costrutto è stato anche brevemente confrontato con costruzioni simili tipo con Clitic Left Dislocation (CLLD). La differenza tra i due è stata riportata in questa sede durante il corso dell'argomentazione.

Secondo quanto riportato in Cinque (1977) e come affermato precedentemente, gli Hanging Topic sono caratterizzati da un particolare tipo di intonazione. Tale affermazione è stata confermata dalla raccolta dei dati portata avanti nel corso dell'indagine di questo studio. Inoltre, per quanto riguarda l'analisi dell'intonazione è importante citare lo studio di Frascarelli e Hinterölzl (2007), in cui sono classificate tre categorie di Topic, ciascuna con un'intonazione differente. Tale classificazione divide i Topic in base alla loro funzione e, nella terminologia di Frascarelli e Hinterhölzl basata su altrettanti precedenti studi cui si farà riferimento in seguito, si distinguono gerarchicamente: aboutness o shifting topic che hanno la funzione di introdurre

un'argomentazione e, di norma, occupano la periferia a sinistra della frase, contrastive topic, che introducono un tema di contrasto con un altro Topic presente nel contesto, e familiar topic, che si riferiscono a temi dati o direttamente accessibili; Alla produzione di ciascuna categoria di Topic si affianca un'intonazione differente, che Frascarelli e Hinterölzl codificano rispettivamente in: L*+H, H*, L*[1]. Tali riflessioni hanno portato ad una possibile classificazione di Hanging Topic in base alla relazione che il Topic intrattiene con la frase a seguire, ovvero con la ripresa. In studi precedenti sono state classificate diverse categorie, ma, in questa sede verranno approfondite solo le categorie rilevanti per lo studio quali Topic e ripresa del Pronome Tonico, Topic e ripresa del Pronome Clitico, ed infine Topic e ripresa con Anafora ed Epiteti.

Per condurre lo studio di questa ricerca è stato necessario raccogliere dei dati da analizzare con lo scopo di attestare l'uso e le caratteristiche di questo costrutto nell'inglese parlato. La raccolta dei dati ha avuto luogo tramite la consultazione di un corpus in lingua inglese che comprende 5 contesti ai quali corrispondevano 2 frasi: una frase di 'controllo' ed un'altra favorevole all'utilizzo di Hanging Topic. Questi contesti e le frasi sono state analizzate da esperti linguistici nativi inglesi. Dunque, alla fine si sono ottenute ben 10 frasi di cui 5 di controllo e le altre 5 con Hanging Topic. Come affermato prima, per condurre questo lavoro è stato necessario intervistare dei parlanti nativi inglesi distribuiti fra voci femminili e maschili di un range di età e di istruzione piuttosto omogeneo. I dati hanno confermato la particolare componente prosodica dell'Hanging Topic.

Per lo studio dell'intonazione ci si è avvalsi dell'uso del software Praat che ha permesso la realizzazione di spettrogrammi e la definizione dell'andamento della curva di frequenza fondamentale, al fine di identificare le caratteristiche prosodiche che rappresentano un tratto distintivo nella produzione di Hanging Topic. In aggiunta, si è voluto anche avvalersi della trascrizione con il sistema ToBI (Tone and Break Indices) con lo scopo di garantire una descrizione comprensibile dei principali tipi di contorni intonativi.

Durante la raccolta dei dati, oltre allo studio dell'intonazione, si è anche potuto studiare ed osservare che questo speciale costrutto si avvale dell'utilizzo di una

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[1] Tali eventi intonativi saranno definiti nel corso dell'argomentazione.

componente gestuale. Dunque, per questo motivo, si è anche deciso di svolgere un'analisi ELAN. È stato interessante notare come la maggior parte dei partecipanti abbiano associato allo speciale contorno prosodico una definita componente gestuale. Alla fine sono state rilevate 4 componenti nello specifico, quali: il Palms Up Open Hand, il movimento della testa, il movimento delle sopracciglia[2]. Inoltre, è stato curioso osservare anche come ogni componente gestuale sia stata utilizzata dai partecipanti in maniera differente per esprimere una carica emotiva diversa.

Il presente lavoro di tesi si struttura in quattro capitoli e una sezione dedicata al riporto degli esempi nell'Appendice. Il primo capitolo è da considerarsi introduttivo alla casistica dell'Hanging Topic e ne elenca le caratteristiche sintattiche e le condizioni d'uso. In questo capitolo viene anche presentata la classificazione degli Hanging Topic in base alle relazioni tra il Topic e la frase a cui questo fa riferimento. Il secondo capitolo è dedicato alla presentazione del corpus usato ai fini dello studio. Viene, inoltre, spiegato come verrà condotto il lavoro. Ci si concentra anche sulle caratteristiche dei partecipanti allo studio. Il terzo capitolo contiene i risultati ottenuti dall'analisi dei dati raccolti con il sistema Praat e la trascrizione ToBI. In questo capitolo sono state riportate le classificazioni a livello intonazionale degli Hanging Topic ed è stata effettuata un'analisi delle diverse intonazioni individuate nella produzione di questo costrutto per quanto riguarda il presente lavoro. Il quarto ed ultimo capitolo riguarda i risultati ottenuti dall'analisi ELAN rivolta al linguaggio del corpo e alla componente gestuale presentata nelle frasi favorevoli all'utilizzo di Hanging Topic. La sezione dell'Appendice presenta la serie di esempi di questo lavoro che non sono stati presentati nei capitoli 3 e 4.

In conclusione, il lavoro di questa tesi ha permesso di testimoniare la presenza di questo caso particolare di costrutto, nella lingua inglese, definito dalla sua sintassi, prosodia, e, in questo caso, anche componente gestuale che lo accompagna. Tuttavia, uno spunto interessante per un futuro lavoro sarebbe ampliare il target di partecipanti eterogeneo con range di età e livelli di istruzioni diversi ed un successivo ampliamento dell'analisi dei contesti favorevoli alla produzione di Hanging Topic.

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[2] Tali componenti verranno poi spiegate nel dettaglio nel corso dell'argomentazione.

Introduction

The subject of this study aims to investigate a particular case of marked syntactic construction of the English language: the Hanging Topic (HT).

In the course of the investigations necessary for the drafting of this work, it emerged that constructs of this type mostly belong to the oral language due to their characteristic prosodic component. The majority of the examples of HT produced belong, therefore, to speech. Nonetheless, a few examples can be found in literary texts that will be referred to in the argumentation.

The choice of this subject is motivated by an interest in the synergetic function that the context plays, especially in this case. With the language is possible to produce and understand constructs that might sometimes appear syntactically 'atypical' to speakers. Hence, one of the aims of this study is to demonstrate the occurrence of these syntactic constructions in appropriate contexts clarifying their characteristics.

Through the studies previously conducted by Cinque (1982) and Benincà (1988) –the last one was later taken up by Benincà and Poletto (2004) and subsequently by Belletti (2009) – it was possible to list the elements that characterize the Hanging Topic from a syntactic point of view. Moreover, the HT is also briefly compared with constructions such as the Clitic Left Dislocation (CLLD).

Concerning the analysis of intonation, it is important to mention the study by Frascarelly and Hinterölzl (2007), in which three categories of Topic are classified, each with a different intonation. This classification divides Topics according to their functions and, in Frascarelli and Hinterhölzl's terminology based on as many previous studies referred to below, they are distinguished hierarchically:

1. *aboutness* or *shifting topics* that have the function of introducing an argument and, as a rule, occupy the left-hand periphery of the sentence;
2. *contrastive topic*, which introduces a topic in contrast to another topic present in the context;
3. *familiar topic*, which refers to a given or directly accessible topic.

The production of each Topic category is accompanied by a different intonation, which Frascarelli and Hinterölzl encode respectively in L*+H, H*, L*[3].

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[3] These intonational events will be defined and exemplified later on in the study.

The reflections that, at first, encouraged the choice of this subject for this work led to a possible classification of Hanging Topic according to the relationship that the Topic has with the sentence to follow, hence with the reprise. The classified categories include the relationship between hypernym and hyponym, between noun and repetition of the clitic pronoun, noun and anaphora, and, lastly, an elliptical relation that sees the realization of HT in the interrogative. Herein, only three kinds of relationships have been taken into account.

Subsequently, it was decided to continue the work by giving it an empirical profile and collecting data to be analyzed with the aim of attesting to the actual use of this construct in spoken English. For collecting data, it was necessary the realize of a *corpus* composed of 5 contexts. To each context belongs 2 sentences: one was the "control" sentence and the other was the sentence with Hanging Topic. Thus, in the end, I had 10 trials: 5 favorable to the use of HT and 5 "control" sentences. To address this issue, I had to interview 5 native English speakers. Therefore, the post-collection data analysis has made possible a classification of the different types of intonation in Hanging Topic production.

For the intonation analysis, Praat software was used since it allowed the realization of spectrograms and the definition of the curve trend in order to identify the prosodic characteristics as a distinctive trait of HT. Furthermore, a transcription analysis was also made through the ToBI (Tone and Break Indices) system which grants a comprehensive description of the major types of intonational contours.

This study is divided into 4 chapters and the Appendix section of the given examples. The first chapter is to be considered introductory to the case history of the Hanging Topic listing its syntactic characteristics and conditions of use. Additionally, in this chapter, there is the classification of HTs according to the relations between the Topic and the sentence that this work will refer to.
The second chapter is dedicated to the presentation of corpora consulted for the purposes of the study motivating its structure. Moreover, here there is also the explication of how this work will be conducted and the focus on the characteristics of the Participants within.
The third chapter contains the results obtained from the analysis of the data collected with the Praat and ToBI system. In this chapter, intonational-level classifications of HTs

have been reported and an analysis of the different intonations identified in the production of this construct has been made.

The fourth and last chapter regards the results obtained from the ELAN analysis referring to the body language presented in Hanging Topic trials.

The appendix of examples at the end of this work contains the transcription of the remaining examples not presented in Chapter 3 and the remaining ELAN analyses not presented in Chapter 4.

Chapter 1 – On the case history of 'Hanging Topic' in the English language

1. Hanging Topic: a brief introduction

In linguistics, word order typology is the study of the order of the syntactic constituents of a language and how languages differ. Some languages rely on the order of constituents to convey important grammatical information. Word Order typology has a long history. Starting from Greenberg (1960), many have contributed to the idea. Vennemann (1973), Steele (1975), Keenan (1978), Lehmann (1978), Comrie (1981), Hawkins (1980, 1983), Croft (1990), and others have contributed to the word order typology.

Word order parameters have been implemented in the typological study on the constituent order of a clause, namely the relative order of subject, object, and verb, and the order of modifiers (adjectives, numerals, demonstratives, possessives, and adjuncts) in a phrase.

The present study focuses on the English language. English is an SVO language: Subject, Verb, Object, and, in some cases, also the Indirect object. The following example taken into account is from Cinque's study (1977)[4].

(1) Piero has lost his identity. (English: SVO)

Nonetheless, not all the utterances follow the SVO order. Speakers are allowed to organize their utterances according to usage, making some differences in the syntactic order of the sentence. This mechanism is called ante position. Ante position is a linguistic phenomenon that occurs when a word or phrase is placed before its basic position in a sentence. This can happen for various reasons: emphasizing certain words, creating a specific rhythm, creating a specific style in speech or writing, etc.

The present study focuses on the Hanging Topic. Hanging topic is a linguistic phenomenon wherein a topic is introduced at the beginning of a sentence. This means that the initial topic 'hangs' or waits for its resolution in the later part of the sentence. In another way, the topic of a sentence is introduced before the main verb but is not fully

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[4] (Cinque, 1977: 401)

specified until later in the sentence. The following example taken into account is from Cinque's study (1977)[5].

(2) **Peter**, I saw **him** with Clara yesterday.

It is commonly used in conversational speech and informal writing, and it can provide a more engaging and suspenseful effect on the audience. Hence, HTs are seen as one of many strategies that languages make use of to introduce a topic (Catasso, 2022).

2. CLLD and HT: two linguistic constructs compared

For what concerns the case of Hanging Topic, there is a linguistic phenomenon very close to it: Clitic Left Dislocation - henceforth CLLD. HT and CLLD both occur in the left periphery and are connected to an argument, but they also differ from many points of view. (Giorgi, 2014)

CLLD expresses the given information. HT often expresses given information as well, but it can also be used to introduce a new item in the discourse depending upon the context. The literature on this issue is quite extensive, and the data are well-known. Hence, for reasons of space, I will not discuss all the differences but only highlight the most relevant points.

The first relevant difference between CLLD and HT is the presence of the preposition: its presence is obligatory with CLLD, whereas not with HT. Consider, for instance, the following example from Giorgi's study[6]:

(3) **A** *Gianni*, Maria *gli* ha dato un bellissimo regalo

   To Gianni, Maria to him gave a beautiful present

(4) *Gianni,* Maria *gli* ha dato un bellissimo regalo

   Gianni, Maria to him gave a beautiful present

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[5] (Cinque, 1977: 405)
[6] (Giorgi, 2014:231)

On the one hand, example (2) shows the case in which the topicalized element is introduced by a preposition, thus the case of CLLD; on the other hand, example (3) represents a case of HT where in topical position, there is no preposition, and there is a clitic reprise in the following statements.

Another difference concerns the relationship established between the left peripheral position and the sentence. In the case of CLLD, there is either a clitic or a zero – according to Frascarelli (2000), a *pro*. Whereas HT can have a clitic, a pronoun, or an epithet as a resumptive element, as illustrated by the following examples from Giorgi's study[7]:

> (5) Gianni, gli hanno dato un bel voto
>
>   Gianni, they gave him a good mark

> (6) Gianni, hanno dato un bel voto perfino a lui
>
>   Gianni, they gave a good mark even to him

> (7) Gianni, hanno dato un bel voto perfino a quel cretino
>
>   Gianni, they gave a good mark even to that idiot

Furthermore, in the case of Hanging Topic, the topic element corresponds to an object and never to the subject of the sentence, as is shown in the following example taken from Rizzi's study (1996):

> (8) **All your books**, I put **them** back.

However, the presence of HT is not expected in all types of embedded sentences; in relative sentences, HT might give rise to ungrammatical structures.

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[7] (Giorgi, 2014:231)

Benincà claimed that psychological verbs (pleasure, satisfy, seem, etc.) often present marked constructions that give rise to HT or CLLD. Please take into consideration the following examples given by Benincà and Poletto (2004):

(9) A Gianni, soddisfa la tua scelta

   To Gianni, your choice satisfies him

(10) Gianni, la tua scelta lo soddisfa

   Gianni, your choice satisfies him

3. Types of Topics and Intonations

Common in speech, a characterizing element of HTs is their intonation. Cinque (1977) claimed that this particular kind of construct needs a specific intonation: with a pause that follows the topicalized element, which in turn seems to have an interrogative intonation. This statement is partly confirmed by the data collected during my study. On the one hand, there are contexts where the intonation of the HT seems to be almost interrogative, with a sort of pause to follow; on the other hand, there are contexts in which the intonation of the HT is quite different and reaches a higher pitch than the rest of the sentence; in others, the Topic is pronounced with an intonation very close to the interrogative one as if to express a situation of uncertainty.

In a study conducted by Frascarelli and Hinterhölzl (2007)[8] on the existing Topics in Italian and German, they analyzed three different types of intonation that occur depending on the type of Topic used within an utterance: aboutness – or shifting topic -, contrastive, and familiar topic. They have respectively been defined thanks to the studies conducted previously by Reinhart (1981), Büring (1999), and Chafe (1987). The first type of Topic (aboutness or shifting) has the characteristic of being in the left periphery of a sentence, introducing a new argument. In Reinhart's terminology (1981), it is defined as *'what the sentence is about,'* and the intonation that characterizes the aboutness topic is codified in Frascarelli and Hinterhölzl (2007) L*+H, which involves

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[8] Even if this study is not about HTs, it seems to be interesting for what concerns the intonation of a topic.

an intonational peak involving the tonic vowel up to the post-tonic syllable. This intonation takes place when a new topic is introduced and marks the shift of attention to the new topic of the ongoing conversation. Concerning what has just been asserted, consider the example given and the related figure representing the Topic's intonational peak, both extracted directly from the article referred to:

(11) *Il materiale era tantissimo quindi all'inizio l'ho fatto tutto di corsa cercando di impiegarci il tempo che dicevate voi magari facendolo un po' superficialmente pur di prendere tutto- **l'ultima unit** la sto facendo l'ho lasciata un po' da parte perché ho ricominciato il ripasso [...]*[9]

*There was a lot of material so at the beginning I did it all in a hurry trying to take as long as you said and maybe do it a bit superficially in order to take it all in - **the last unit** I'm doing I left it a bit aside because I started the review again.*
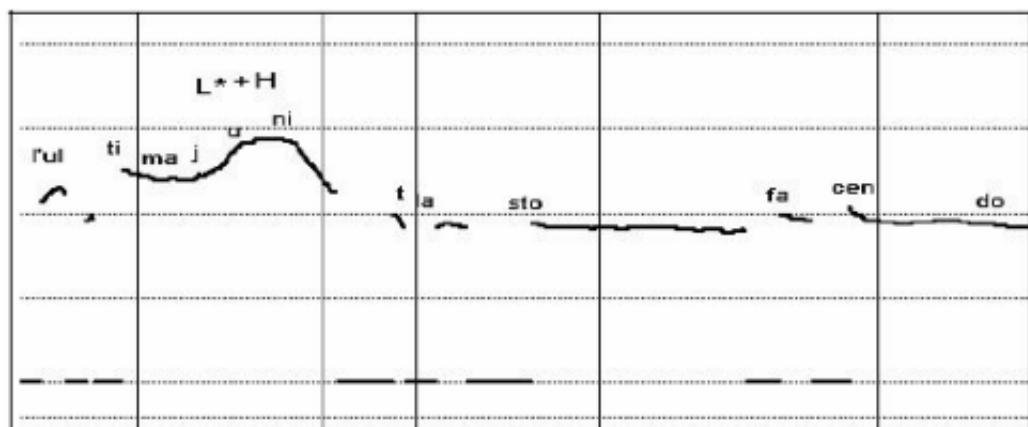
Figure 1

Figure 1 shows exactly where the pitch occurs of the Topic's intonation, highlighting the subsequent lowering of the pitch, which remains constant throughout the entire realization of the phrase that follows.

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[9] (Frascarelli e Hinterölz 2007:4).

The second type of topic is contrastive. According to Büring (1999, 2001), this type of Topic has the characteristic of performing a distinctive function between two or more constituents in the same sentence. Therefore, the intonation of contrastive topics emphasizes the contrast between Topics and is encoded with the notation H*. Also, for this case, the following example with relevant figures extracted from Frascarelli and Hinterhölzl (2007) is taken into consideration.

(12) *Le lingue in particolare non c'ho un metodo particolare perché ho avuto una storia travagliata soprattutto con l'inglese [...]* **col francese** *benissimo: ho fatto tre anni di medie avevo raggiunto un buon livello secondo me riuscivo a vedere un film –* **in inglese** *ho avuto sempre problemi con i professori.*

Languages in particular, I don't have a particular method because I had a troubled history especially with English [...] **with French** *I did very well: I did three years of secondary school and I had reached a good level in my opinion I could see a film -* **in English** *I always had problems with the teachers.*
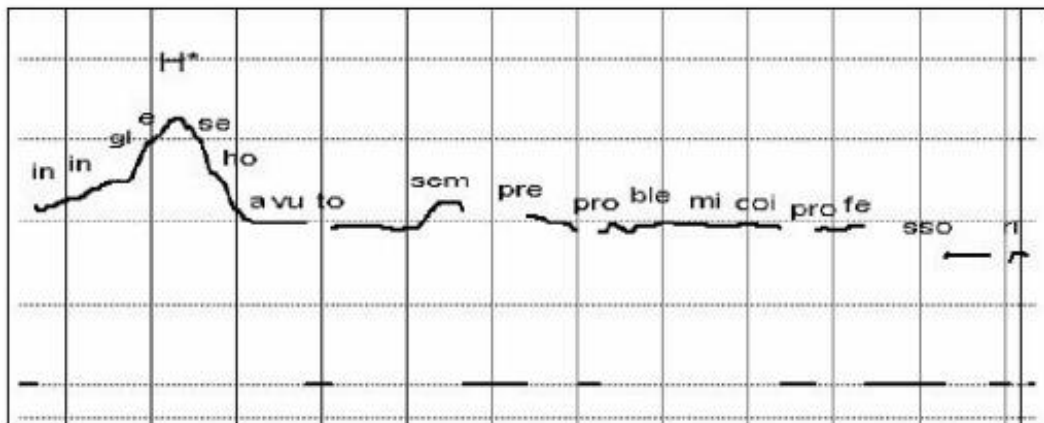
Figure 2

The elements placed in bold in example (11) are the two constituents compared within the utterance, in this case, *French* and *English*. Also, here, through the observation of

Figure 3, it is possible to observe an increased intonation on the PP in *English,* whose peak is reached on the tonic vowel, unlike the previous example where the intonation pitch occurred on the post-tonic syllable.

For what concerns the third and last type, Familiar Topics, it should be specified that they always represent accessible referential elements. Moreover, they are introduced at a specific given moment in the discourse and are repeated to ensure continuity. As a rule, they occupy the right periphery of the sentence, and their intonation never reaches high pitches because it is an accessible topic that does not involve shifting attention to it. The following example is from Frascarelli and Hinterhölzl (2007).

(13) *B: io dovevo studiare le regole qui e lì e fare solo esercizio, invece mi aspettavo di trovare dei punti a cui fare riferimento ogni volta per vedere la regola, questo mi è mancato praticamente per avere* **la conferma** *di ricordare tutto insomma; A: comunque quelle domande ti davano la conferma che avevi capito; B: ma…magari non me la-* <u>non riesco a darmela da sola</u> **la conferma**.

B: I was supposed to study the rules here and there and just do the exercise, instead I expected to find points to refer to each time to see the rule, that's all I needed **to confirm** *that I remembered everything; A: anyway, those questions gave you confirmation that you understood; B: but... <u>maybe I can't give myself</u>* **the confirmation**.
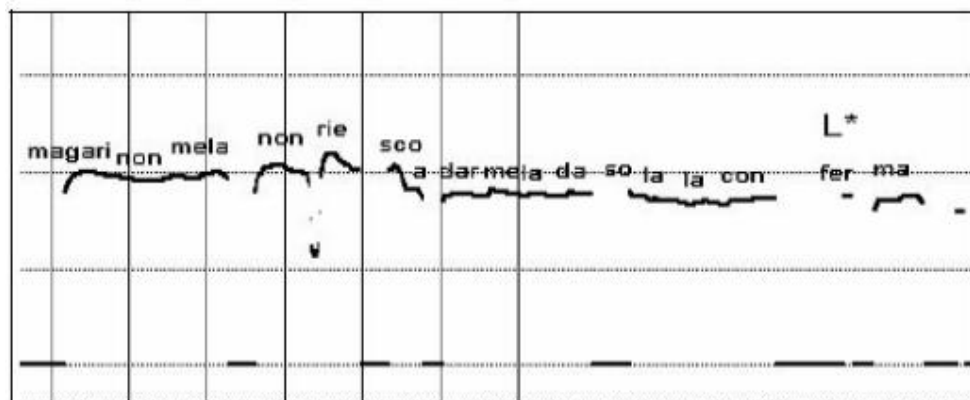
Figure 3

Therefore, it is possible to discriminate between the various types of Topics through different intonations. One of the main conditions for the production of HT, as stated before, is that the topic has to be accessible or already mentioned. This condition would make it similar to the Familiar Topic, but HT always occupies the left periphery, and its intonation appears significantly different. Indeed, according to Frascarelli and Hinterhölzl (2007), Familiar Topics can be recursive in whatever position they are found. However, this argument will be discussed later, examining the sentences extracted from the data and their intonation. It will be noted that even in the case of Hanging Topics, it is possible to distinguish different intonations linked to different communicative intentions and contexts that make their use favorable.

4. Topic and Focus on different kinds of HT

The elements placed in constructions with Left Dislocation or HT always have a reprise in the sentence to follow. Regarding the case of HT, the reprise is strictly necessary to link the Topic to the Focus[10] sentence, as well as a factor characterizing this structure.

As previously mentioned in the article by Benincà and Poletto (2004), the Hanging Topic, unlike CLLD constructions, admits various types of recovery in addition to the Clitic ones. Through these typologies, it is possible to classify HTs based on the context in which the HT is produced. Previous studies, such as the one of Beninca' and Poletto (2004), have noted that there are several kinds of HT that are distinguished by the relationship between the Topic and the Focus. Here, I will not discuss each kind of topic but only highlight the most relevant types necessary for the research.

4.1 Topic and reprise of the Tonic Pronoun

In contrast with CLLD, for HT, there is not only the clitic reprise but also that of the tonic pronoun. In the following example, the element in topic position is a proper noun (but it also might be a common noun), and the resumption of the tonic pronoun takes

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[10] The topic-focus distinction has been widely associated with the division between given and new information in a sentence (Elly Van Gelderen, 2017:100)

place when the Topic is co-indexed with the reprise. Consider the following example of HT with the resumption of the tonic pronoun[11]:

(14) <u>Giorgio</u>, ai nostri amici, non parlo mai di **<u>lui</u>**.

<u>Giorgio</u>, to our friends, I never talk about **<u>him</u>**.

4.2 Topic and Resumption of the Clitic Pronoun

Consider the following example of HT with clitic reprise[12].

(15) <u>I tuoi occhiali, **li**</u> ho messi sul tavolo.

<u>Your glasses</u>, I put **<u>them</u>** on the table.

4.3 Topic and reprise with Anaphora and Epithets

The shooting elements of Hanging Topic might be pronouns but also Anaphora and Epithets. The following example is taken into consideration[13].

(16) <u>Mario</u>, non darò più soldi a **<u>quell'imbecille</u>**.

<u>Mario</u>, I'll never give any more money **<u>to that idiot</u>**.

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[11] (Beninca' e Poletto, 2004:18)
[12] (Beninca' e Poletto, 2004:23)
[13] (Beninca' e Poletto, 2004:18)

Chapter 2 – Data set

1. Method and materials

In this study, I address the issue of Hanging Topic, devoting particular attention to its prosodic and gestural components. I constructed 10 trials, 5 favorable to the use of HT, and 5 "control" sentences. Each of these sentences is connected to the appropriate context. Furthermore, each sentence was analyzed by an expert linguist native speaker to check the context used to elicit the sentences. To address this issue, this work focuses on the interaction of the English language's prosodic, gestural, and syntactic components. Thus, for the study, I had to interview 5 native English speakers. The participants are 4 females and one male, and their age is between 21 and 24. The participants are Erasmus' students who have made themselves available to participate in this study. Before conducting the research, the participants had to agree and sign an informative consent form. The information on participants is given in more detail in the table below:

PARTICIPANT	GENRE	AGE	COUNTRY OF ORIGIN
1	Female	24	South Africa
2	Female	23	Sussex
3	Female	21	Essex
4	Female	21	Sussex
5	Male	24	USA

I ran a repetition task. I had all contexts read out by a native English speaker meant to introduce both the control sentences and the sentences with HT values[14]. The sentence was presented in a written form in order not to suggest any prosodic cue. Indeed, no instructions were provided, but it was only asked to utter the sentences most appropriately and naturally as a reaction to the context. No reference has been made to

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[14] After each context, the native speaker participants were asked to read the sentence presented to them and to repeat it out loud in the most natural way.

prosodic or gestural aspects. The participants were videotaped. Hence, the participants were asked to videotape themselves in a vertical framing where it is possible to see their heads and hands. In every video, they have to be at the same distance[15]. I used the audio files extracted from the videos to analyze and annotate the prosody component with Praat[16]. In addition, in those cases in which there was also the presence of the gestural component, I used the video material for conducting an ELAN analysis[17]. Through ELAN analysis, I could measure the time of the happening of gestures and nonmanual components plus their duration.

In the end, I obtained 50 sentences: 25 were produced as a reaction to HT contexts, and the other 25 were produced as a reaction to the control contexts. For the majority, the sentences showed a significant regularity in form. Importantly, the sentences seem to be related to the expression of the speaker's emotions.

2. The data

To Illustrate the evidence taken into account, consider the following sections.

2.1 Control Contexts

Scenario I: *Pink is the color that you hate the most. You are arguing with a friend of yours about a skirt. Mary, your friend, believes that the skirt on the mannequin is beautiful and that it would suit you perfectly, but it is pink. You say:*

I'd never wear anything like a pink skirt.

Scenario II: *John is your ex-boyfriend. A friend of yours told you that he saw him a few days ago. You saw him too yesterday in the park and say:*

I met John in the park yesterday.

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[15] For privacy reasons, the videos will not be available for purposes other than this study.

[16] Praat is a free computer software package for speech analysis in phonetics.

[17] ELAN is computer software, a professional tool to manually and semi-automatically annotate and transcribe audio or video recordings

Scenario III: *You have read a book that you enjoy. This book is about an issue that would interest your friend, so you say:*

I believe that you should read this book.

Scenario IV: *Your friends are organizing a party for the end of the exam session. Peter is your boyfriend, and your friend Nina is asking you if Peter has been invited too. You say:*

They are going to invite Peter tomorrow.

Scenario V: *You are arguing with your friends about which movie to watch tonight, and they suggest "The Eternal Sunshine of the Spotless Mind", but you watched it when you were a kid. So you say:*

I watched this movie when I was a kid.

2.2 Contexts favorable to HT values

Scenario I: *Pink is the color that you hate the most. You are arguing with a friend of yours about a skirt. Mary, your friend, believes that the skirt on the mannequin is beautiful and that it would suit you perfectly, but it is pink. You say:*

A pink skirt, I'll never wear anything like that.

Scenario II: *John is your ex-boyfriend. A friend of yours told you that he saw him a few days ago. You saw him too yesterday in the park and say:*

John, I met the idiot in the park yesterday.

Scenario III: *You have read a book that you enjoy. This book is about an issue that would interest your friend, so you say:*

This book, I believe you should read it

Scenario IV: *Your friends are organizing a party for the end of the exam session. Peter is your boyfriend, and your friend Nina is asking you if Peter has been invited too. You say:*

Peter, they are going to invite him tomorrow.

Scenario V: *You are arguing with your friends about which movie to watch tonight, and they suggest "The Eternal Sunshine of the Spotless Mind", but you watched it when you were a kid. So you say:*

This movie, I watched it when I was a kid.

Chapter 3 – Intonation Analysis

1. Hanging Topic and its intonation

This chapter regards the analysis of the intonation of the 10 trials for the 5 participants. Each sentence obtained by means of the contexts was analyzed with Praat. In addition, a ToBI analysis has been done.

As stated before, the HT production is closely linked to a particular intonation. However, this study has demonstrated that HT's intonation might be more than one kind. In this work, I found out that there are three types of intonation:

1. The first type is characterized by a sentence with an accent in the first part and a lower pitch accent in the final part. It is the same type identified by Cinque (1977) which is pronounced with an interrogative intonation followed by a pause. This argument was addressed by Dowing (1970) in which he states that the constituents in the left periphery are obligatorily separated by a break. The same observation regarding Italian is taken up by Frascarelli (2000).

2. The second type is similar to one of the *aboutness topics* where the prosody's curve resembles an imperative or exclamatory sentence. In this case, the curve trend describes a linear and homogeneous development during the whole utterance.

3. Last but not least, the third kind presents sentences with an intonation close to the one in *familiar topics* because there are no relevant pitches and the prosody's curve describes a linear and homogeneous course throughout the entire sentence production.

However, the properties relevant for HT's prosody not only concern the intonational peaks during the production but also include the pauses or possible interruptions. The pauses might be short, medium, or long. They were detected with Praat which allows to represent the pauses and their duration.

Hence, as will be demonstrated later in this study, in almost every case of Hanging Topic there is a break after the left-peripheral phrase. This confirms that the

presence of a break is one of the main characteristics of Hanging Topic. On the contrary, in the control sentences, there are no pauses – except for just one case[18].

Furthermore, in addition to the syntactic properties that the sentences present, the intonation and the occurrence of a pause confirm that those are a case of Hanging Topic. This shows that the break is a distinctive feature of HT sentences from the prosodic point of view. For this reason, it is possible to make a further classification of HT according to the type of intonation. All the examples are listed below. For each example with HT, the control sentence is also reported to demonstrate the prosodic difference during the utterance.

To facilitate the reading of this section, only the most relevant sentences are reported below as examples for each category of intonation. The rest of the sentences have been classified and reported in the Appendix.

1.1 Interrogative intonation with a short pause

The first type of intonation considered is very close to an interrogative prosody. HTs characterized by this kind of prosody expect that after, the Topic pronunciation, there might be a short break (flagged with the symbol *). After this break, there might be also an intercalary, a filler, or a parenthesis. For what concerns the pause duration, there is a range under one second, equal to one second, or more than one second long.

The following example is taken from Participant 1 in Context 5. It is considered in order to clarify the characteristics of this first type of intonation:

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[18] This is not relevant to the purpose of this study because I will focus on the trials with Hanging Topic. Moreover, that pause seems like breath-taking before continuing with the enunciation

(17) I watched this movie when I was a kid already.
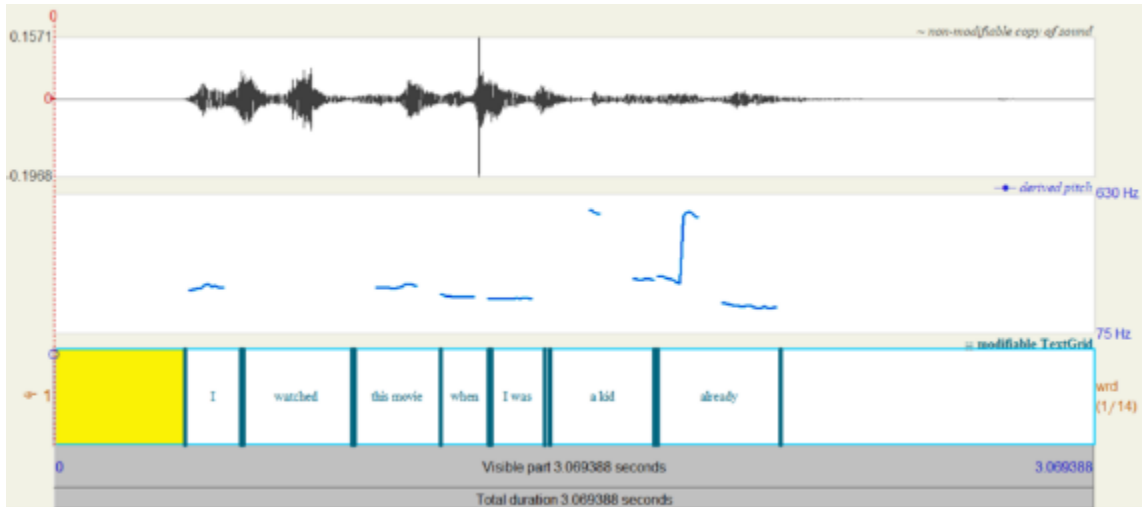
Figure 4

Figure 4 representing example 16 shows that there are no relevant peaks during the utterance, except for the adverb *already* which was added spontaneously by the speaker. Probably, Participant 1 wanted to put emphasis on the fact that the movie had already been watched through the presence of the adverb of frequency.

(18) This movie, I watched it when I was a kid already.
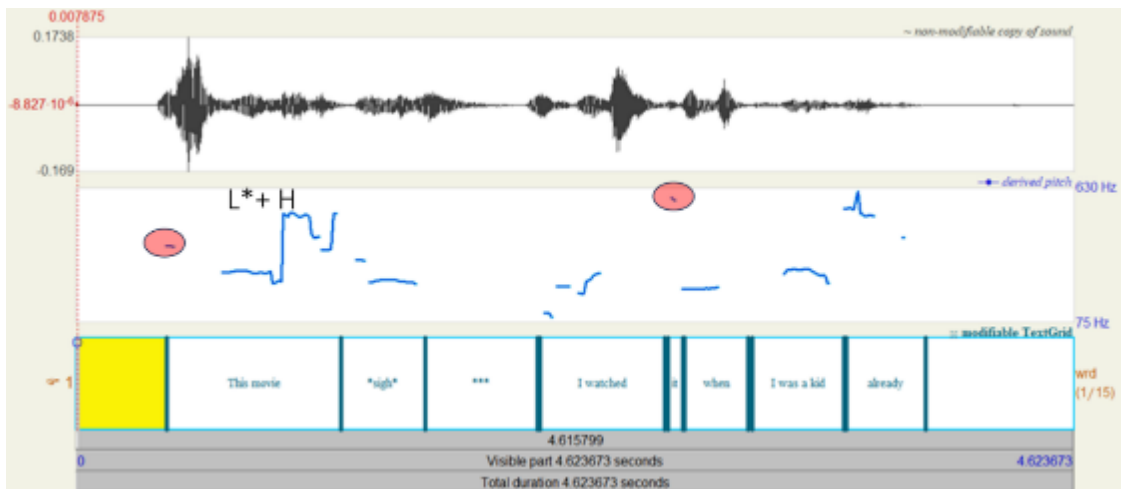
Figure 5

Figure 5 concerning example 17 presents a homogeneous curve trend. There are two significant pitch accents: the first one on the Topic, and the second on the adverb as in

the example (16). The Topic is followed by a one-second pause, but, it would be lasted longer if Participant 1 did not add a sigh before her silence. Please note that the areas circled in red indicate the presence of background noises which could not be excluded from the audio track.

Another example of this type of intonation is from Participant 2 in the same Context.

(19) I watched this movie when I was a kid.
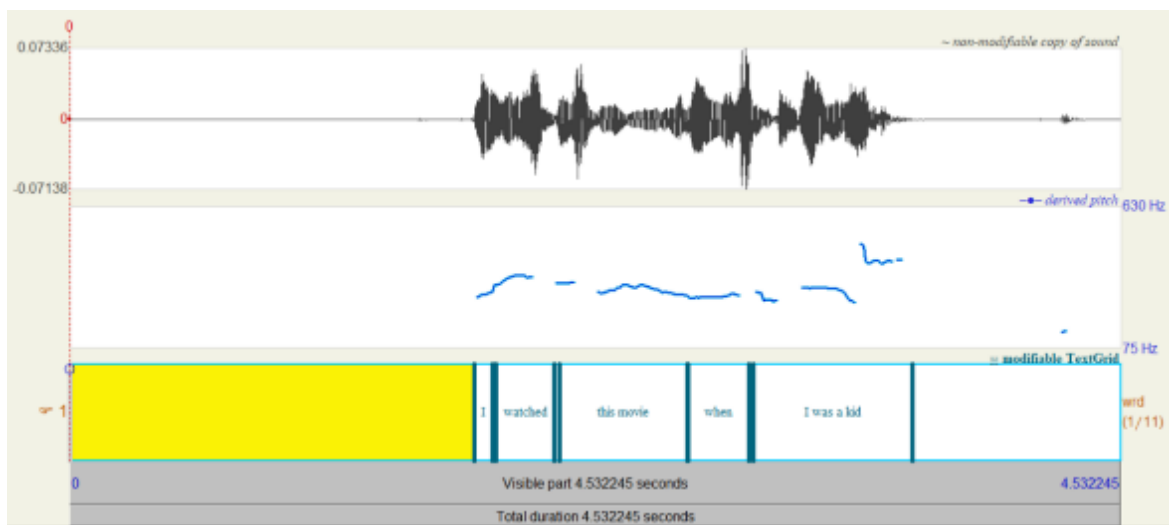
Figure 6

As it is possible to observe in Figure 6, the sentence (19) presents a linear curve trend overall. The only relevant peak is at the word *kid*.

(20) This movie, I used to watch it when I was a kid.
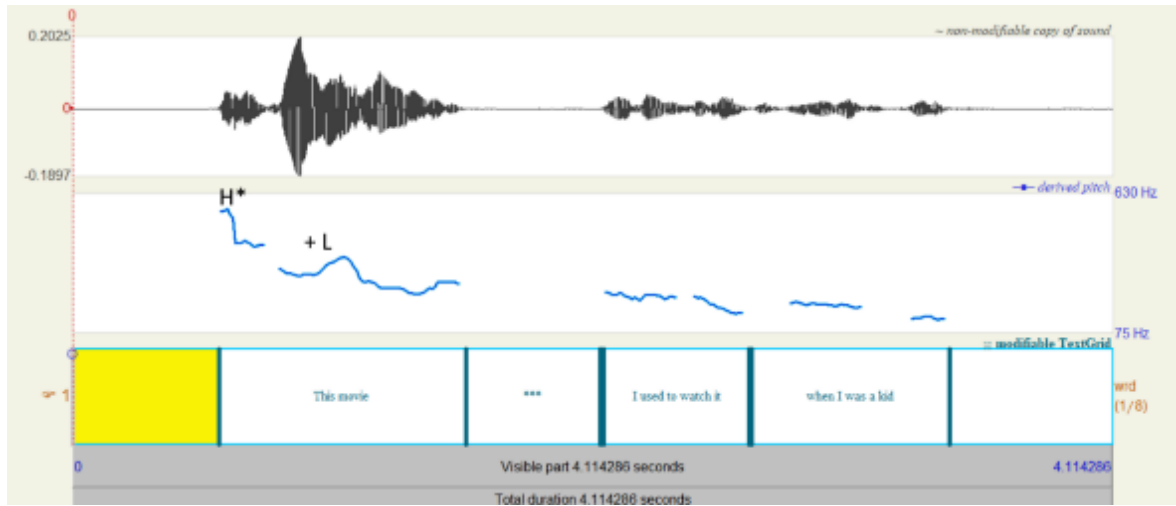
Figure 7

As can be seen from the image above, the trend of the curve remains fairly homogeneous. The Topic is separated from the rest of the sentence by a short pause. The pause lasts less than one second. Specifically, it can be observed that the highest peak is reached at the Topic "*This movie*". Here, the curve trend of the Topic seems to have an H* + L. Moreover, Participant 2 added the verb '*to use to*' which was not presented in the original sentence.

Participant 3 demonstrated 4 HT trials out of 5 in concordance with the interrogative intonation. However, in this section, only the sentence regarding Context 4 is reported below.

(21) They're going to invite Peter tomorrow.
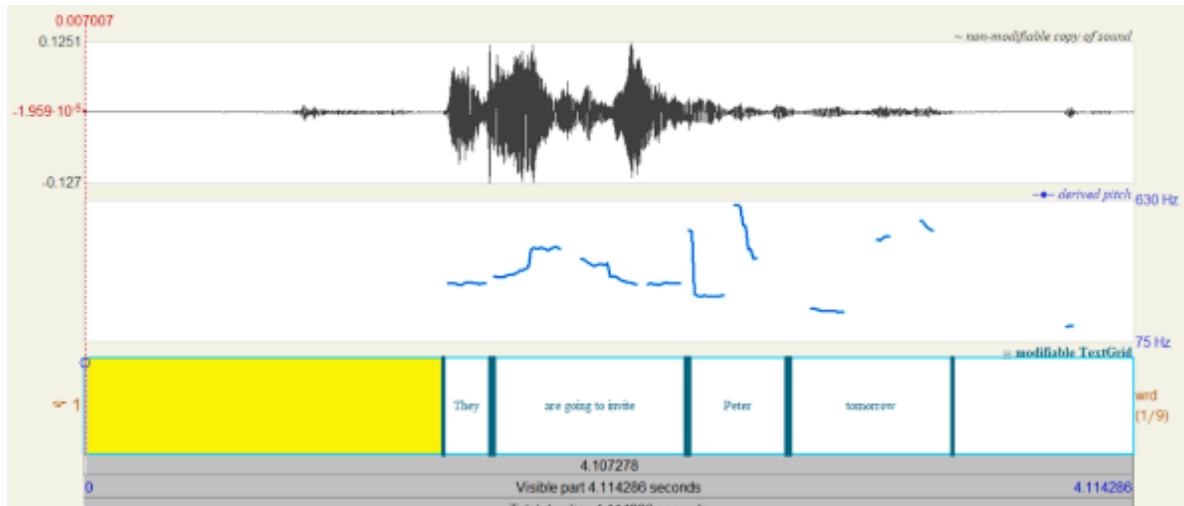
Figure 8

As it is possible to observe in the figure above, sentence (20) presents a curve trend with several peaks. Presumably, the participant aimed to declare what she was saying without accepting any different answer or response.

(22) Peter, they're going to invite him tomorrow.
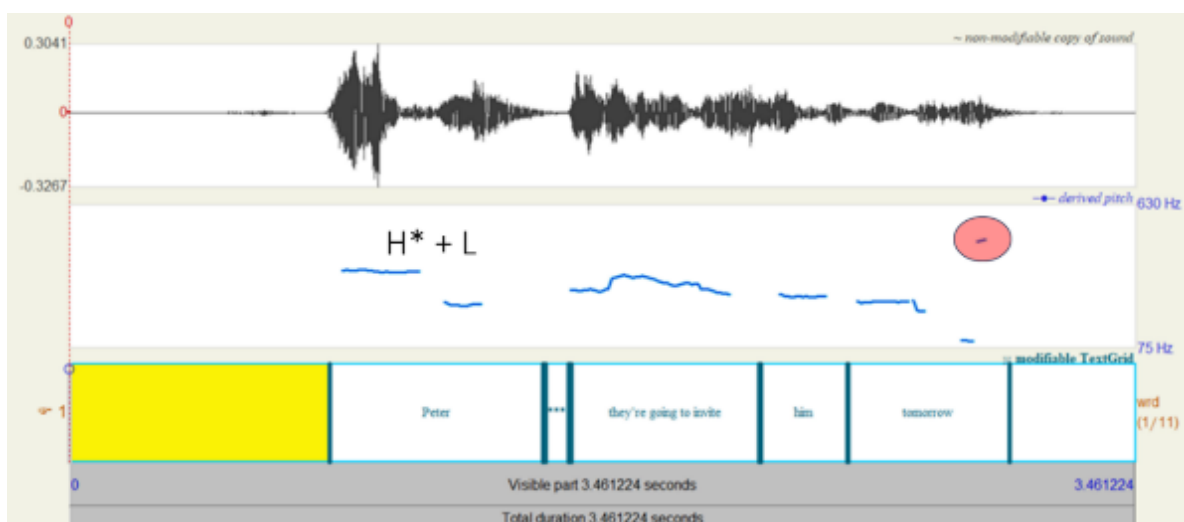
Figure 9

In Figure 9 is possible to observe that the Topic presents an H*+L profile intonation followed by a short pause. The rest of the sentence has a linear trend overall. The peak signed in re at the end of the sentence is due to noises presented in the track.

The rest of the sentences belonging to this type of intonation are all listed below in the Appendix section.

1.2 Intonation on the model of *aboutness topic*

The second type of intonation is completely different from the first one described above. Indeed, this type does not realize HT with an interrogative tone. Its curve trend is similar to the one of the *aboutness topic*, which was defined in section 3 of Chapter 1. According to Frascarelli and Hinterhölzl (2007), the *aboutness topic* introduces a new argument in the discourse.

The *aboutness topic*'s production is linked to a new argument in the speech. Hence, the speaker puts a bigger emphasis on the Topic. For this reason, the intonation of the *aboutness topic* is characterized by a pitch followed by a lowering of the tone on the rest of the sentence.

The following examples illustrate this phenomenon. In addition, they show differences in the curve representation, in particular differences in the pause. Indeed, these examples determine that the HTs with this kind of intonation do not have a standard pause. Hence, the pause may be short or long.

Participant 1 presented 4 HT trials out of 5 with this particular intonation. An example is represented below.

(23) They're going to invite Peter tomorrow.
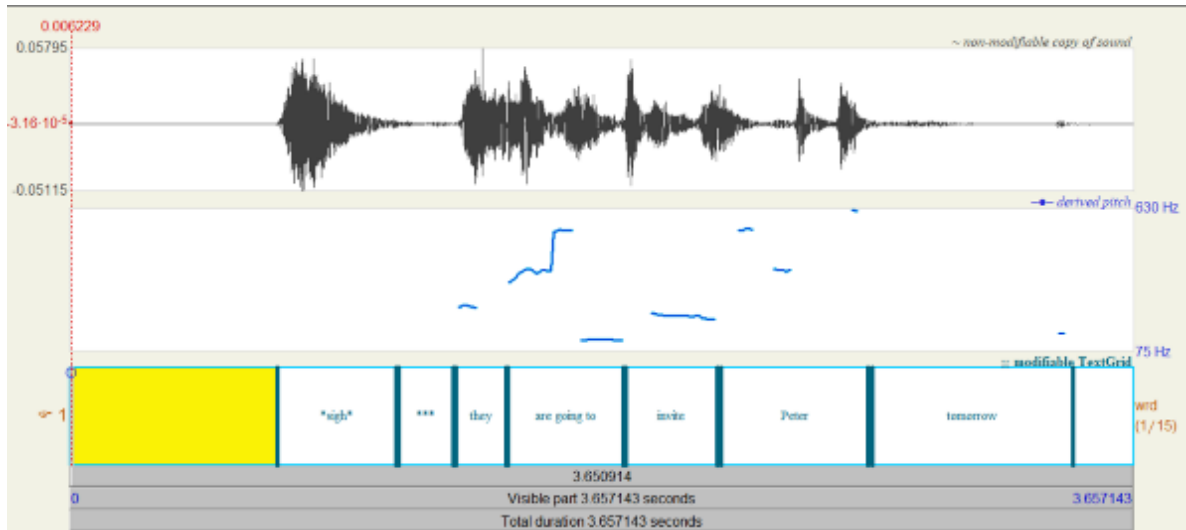
Figure 10

In Figure 10, the curve trend presents some peaks during the utterance process. This is probably due to the declarative intention of the speaker. Even in this case, Participant 1 added a sigh and a short pause before the utterance.

(24) Peter, they are going to invite him tomorrow.
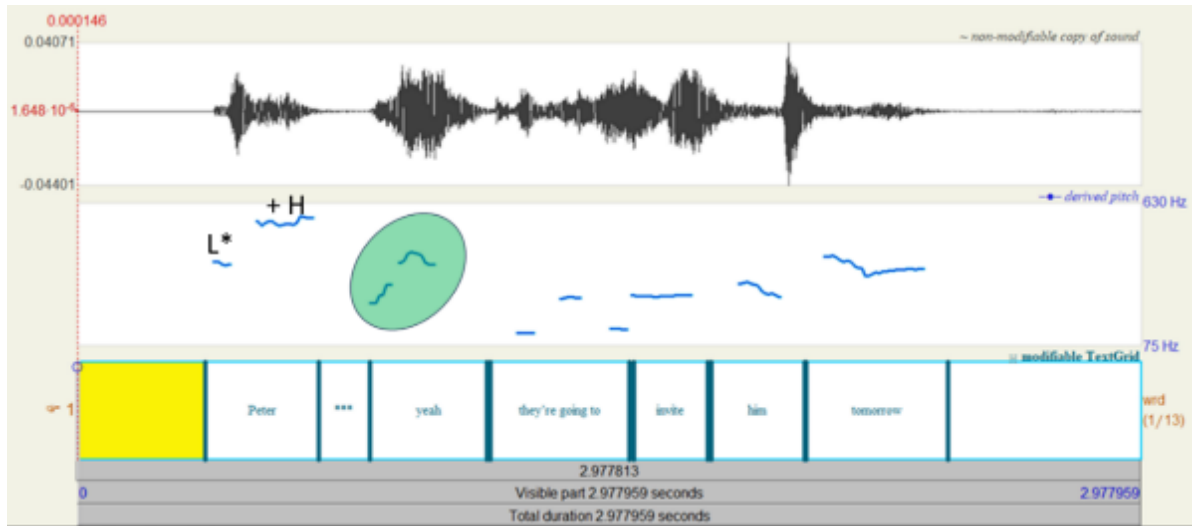
Figure 11

In this case, the curve trend in Figure 11 shows homogeneity and linearity overall. Although there are some pitches, this is probably due to the declarative intention of the speaker who seems to have an exclamative intonation. However, the highest pitch occurs during the HT's production. Indeed, it is possible to observe an L*+H intonation. The pause, instead, is less than one second long. Moreover, the circled green area represents a spontaneous addition by the speaker to the sentence.

Participant 2 realized 3 trials out of 5 with the *aboutness topic*'s intonation. The following example is produced after Context 4.

(25) They're going to invite Peter tomorrow.
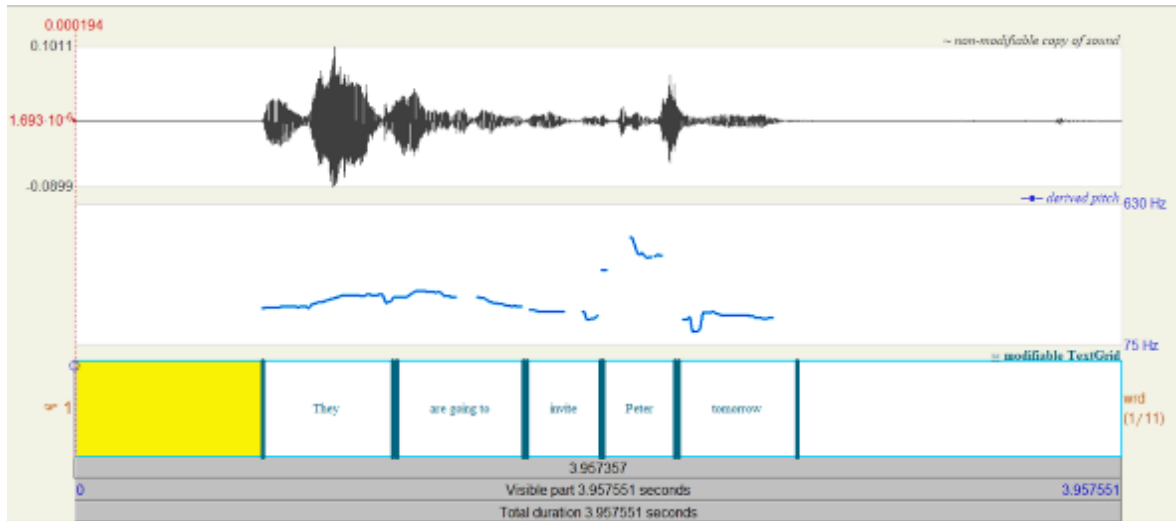
Figure 12

In the figure above the curve trend represented is overall linear and homogeneous. The highest pitch is on the direct object *Peter*. No pauses were detected by Praat.

(26) Peter, they're going to invite him tomorrow.
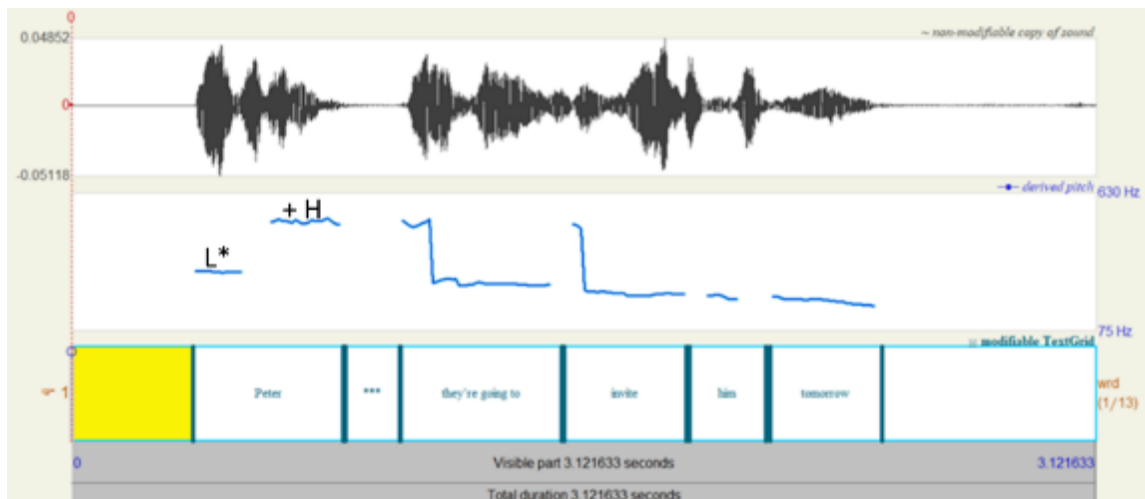
Figure 13

Although the curve in Figure 13 presents higher frequency levels (probably since the speaker is a woman), it can be seen that the curve trend is roughly homogeneous. Even if there is a high pitch in correspondence of the subject *they* and the verb *invite*. The pause between the Topic *Peter* and the following sentence is short. Nonetheless, the pause defines the boundary between the two elements and is similar to the *aboutness topic*; while the rest of the sentence intonation seems to present the characteristics of a declarative, where the pitch is in the initial part with a subsequent sharp drop in tone.

Participant 4 shows 2 HT trials out of 5 with this typology of intonation. The respective contexts are contexts 2 and 4.

(27) I met John in the park yesterday.
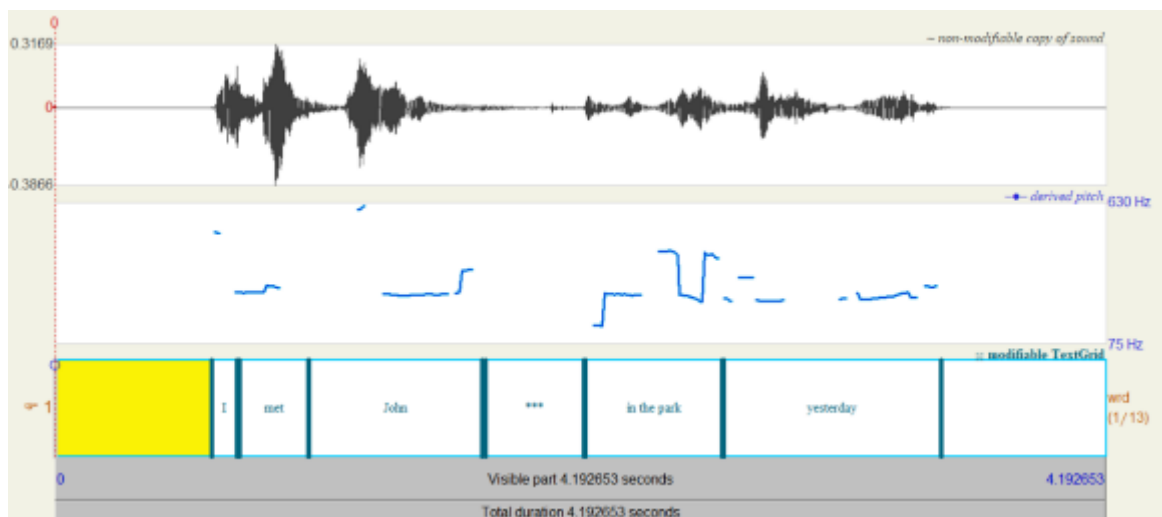
Figure 14

In general, the figure above shows a curve trend characterized by some peaks. This is probably due to the declarative intention of the speaker. No pauses were detected.

(28) John, I met the idiot in the park yesterday.
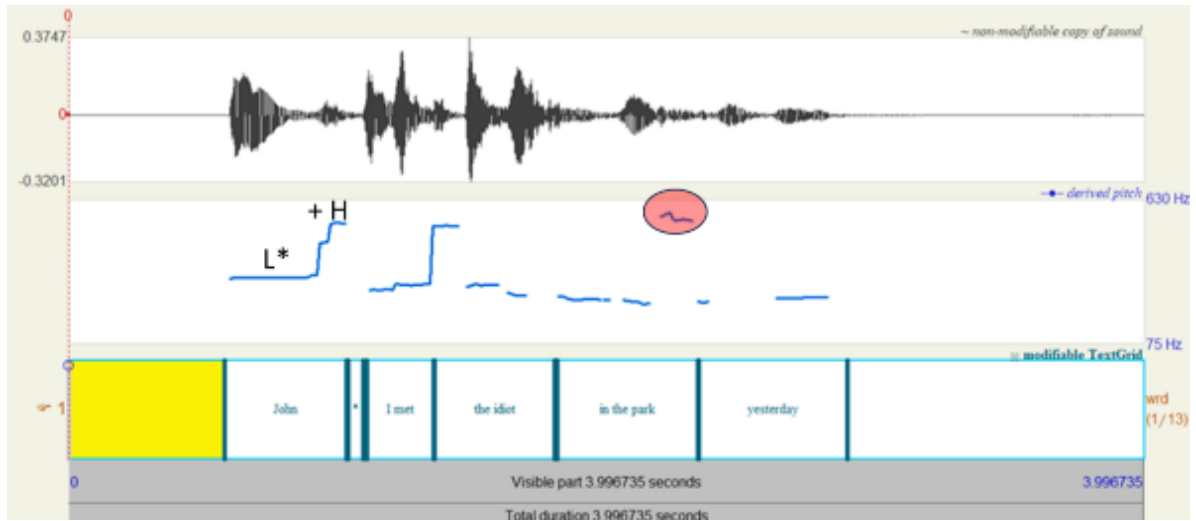
Figure 15

In Figure 15 is possible to observe that the Topic presents an L*+H profile intonation followed by a short pause. The rest of the sentence has a linear trend overall. The pitch in the red area is due to noises presented in the track.

Participant 5 shows 2 HT trials out of 5 with the aboutness topic's intonation. The contexts taken into consideration are contexts 3, and 4. The extracted example in this case is the one belonging to Context 4.

(29) They're going to invite Peter tomorrow.
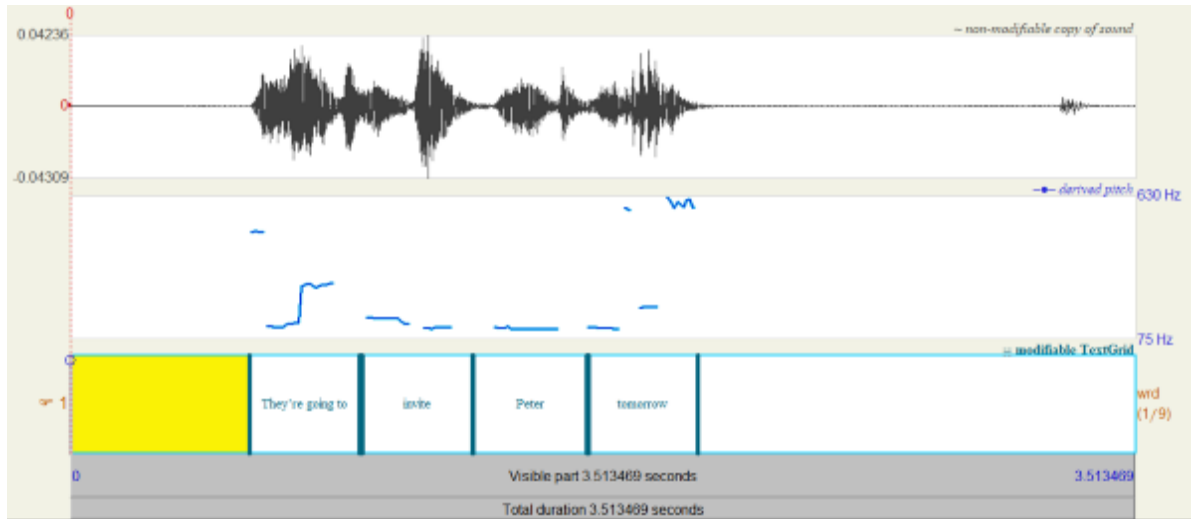
Figure 16

As it is possible to observe, in this case, the curve trend is roughly linear. The highest pitch is on the verb. There are no pauses.

(30) Peter, they're going to invite him tomorrow.
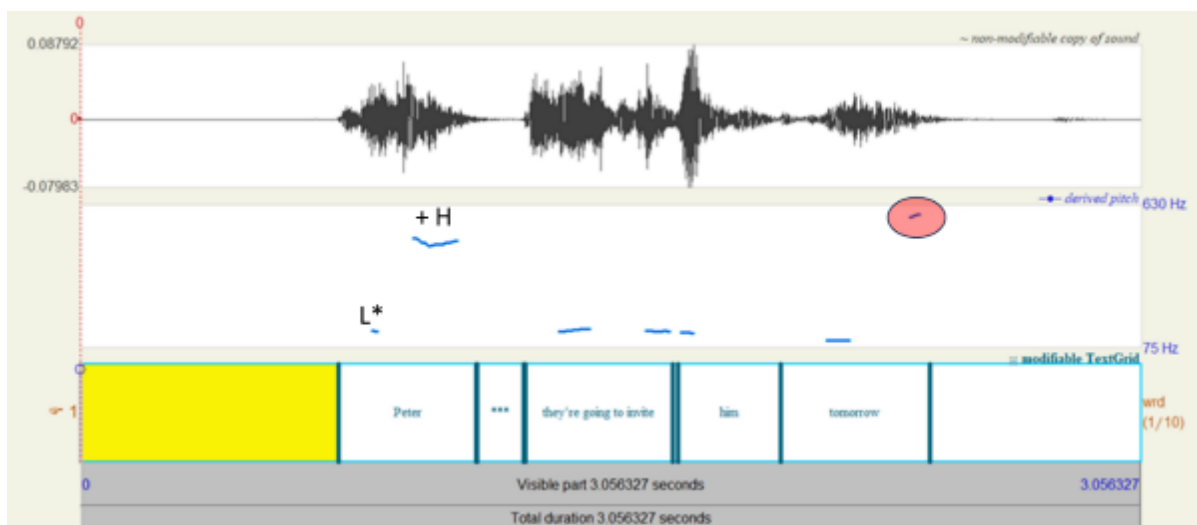
Figure 17

In Figure 17 is possible to observe that the Topic presents an L*+H profile intonation followed by a pause. The rest of the sentence has a linear trend overall. The area in red at the end of the sentence is due to noises presented in the track.

The rest of the sentences belonging to this type of intonation are all listed below in the Appendix sections.

1.3 Intonation on the model *familiar topic*

The third and last type of intonation detected during this study has no relevant peaks on the Topic and in the sentence. Its curve trend seems to have some similarities with the *familiar topic* model. Nonetheless, the familiar topic's description does not fit HT's because HT only occupies the left periphery of the sentence.

However, the cases where the HTs are pronounced with the typical intonation of the *familiar topic* are rare on the base of this study's data. Indeed, for this intonation type, only two examples were detected.

There are just four examples belonging to this type. They are listed below.

The following example belongs to Participant 4 and it was taken from Context 5.

(31) I watched this movie when I was a kid.

Figure 18

37
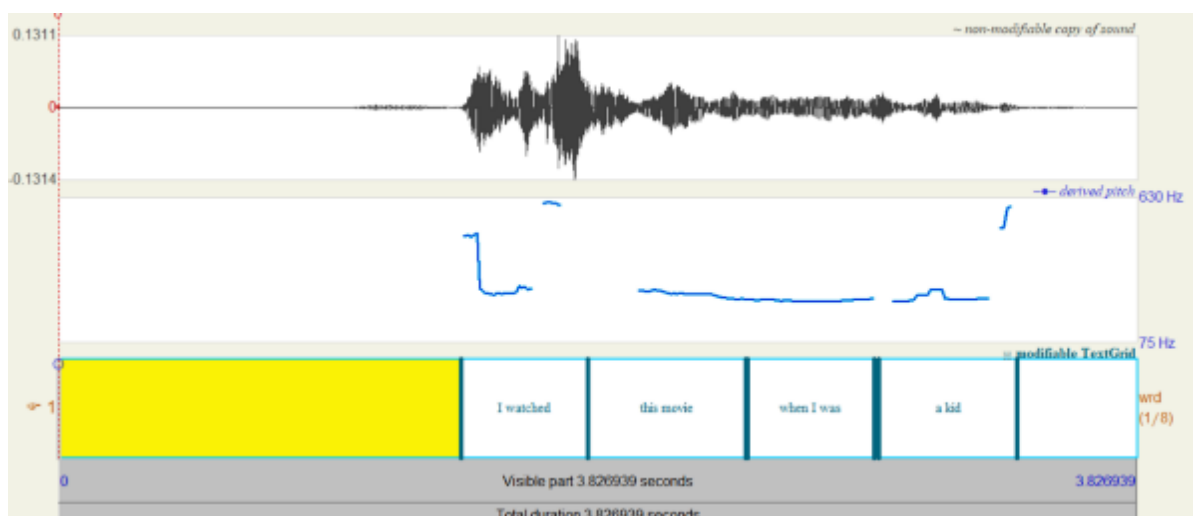
The figure above shows that there is one significant peak at the verb '*to watch*'. There are no pauses.

(32) This movie, I watched when I was a kid.
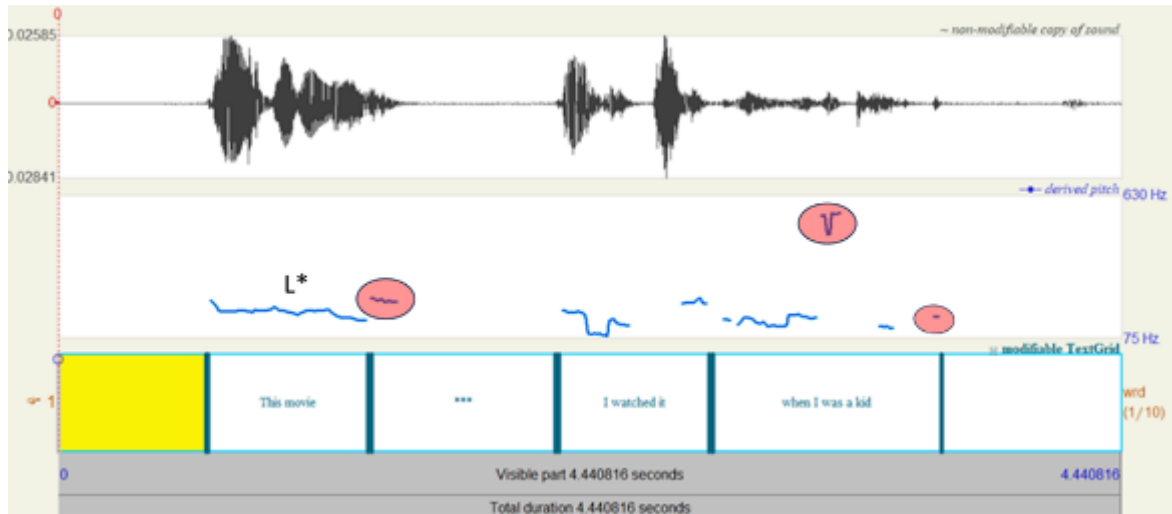
Figure 19

From the figure above, it is possible to observe how the curve trend is regular during the sentence without any pitch on the Topic. Indeed, it was detected an L* intonational profile. Furthermore, there is a more than one-second-long pause following the Topic.

The next two examples belong to the same participant (participant 5) but to two different contexts.

(33) I met John in the park yesterday
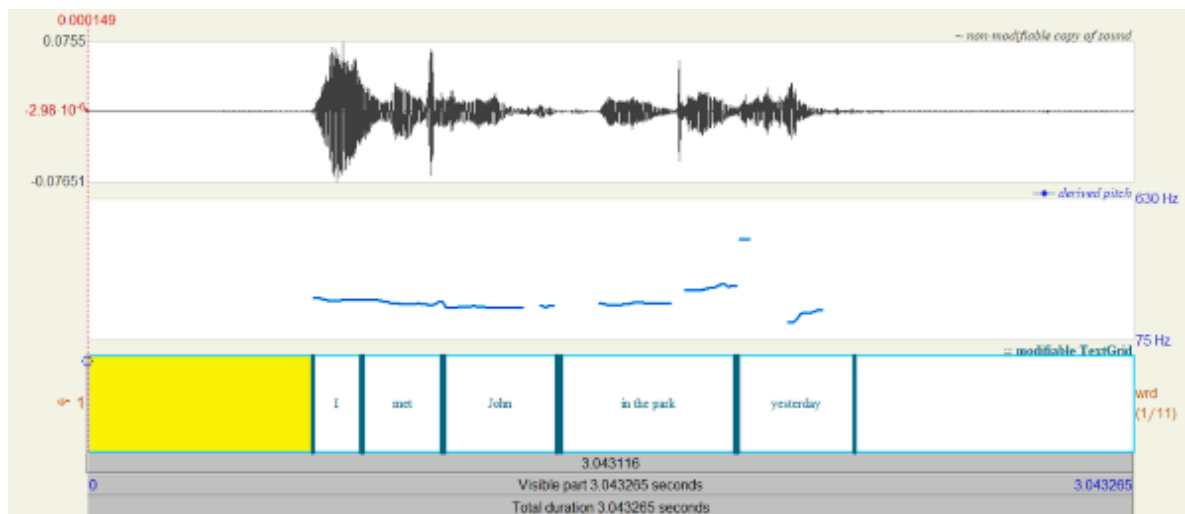
Figure 20

Even in this case, the curve trend is homogeneous and there are no pauses. There are also no significant peaks during the utterance.

(34) John, I met the idiot in the park yesterday.
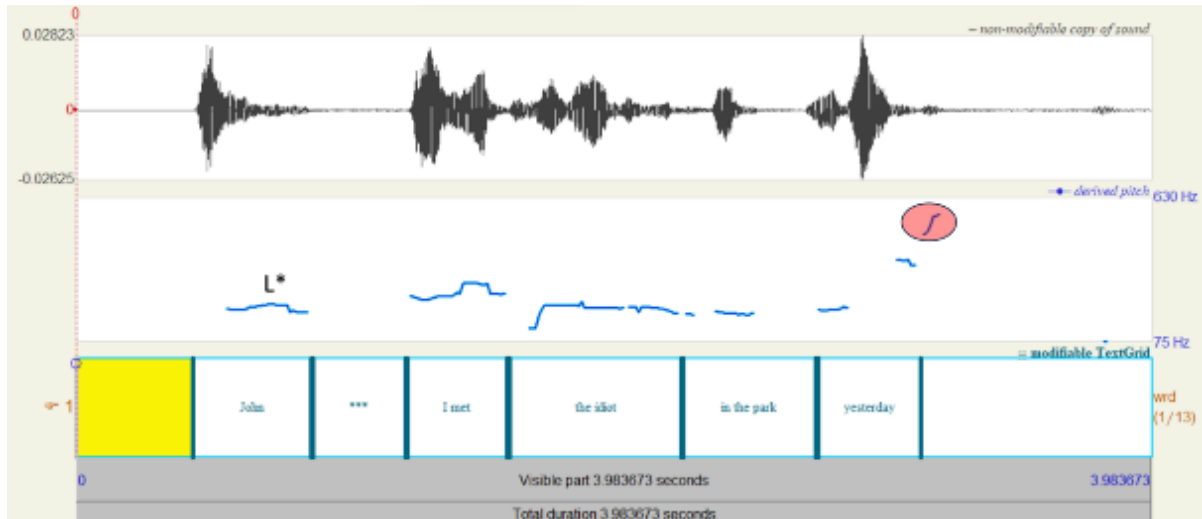
Figure 21

It is visible the L* intonation at the Topic, which is followed by a pause. The rest of the sentence presents a lower tone[19].

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[19] Please keep in mind that the circled red area represents background noises which were impossible to erase from the audio track.

(35) I watched this movie when I was a kid.
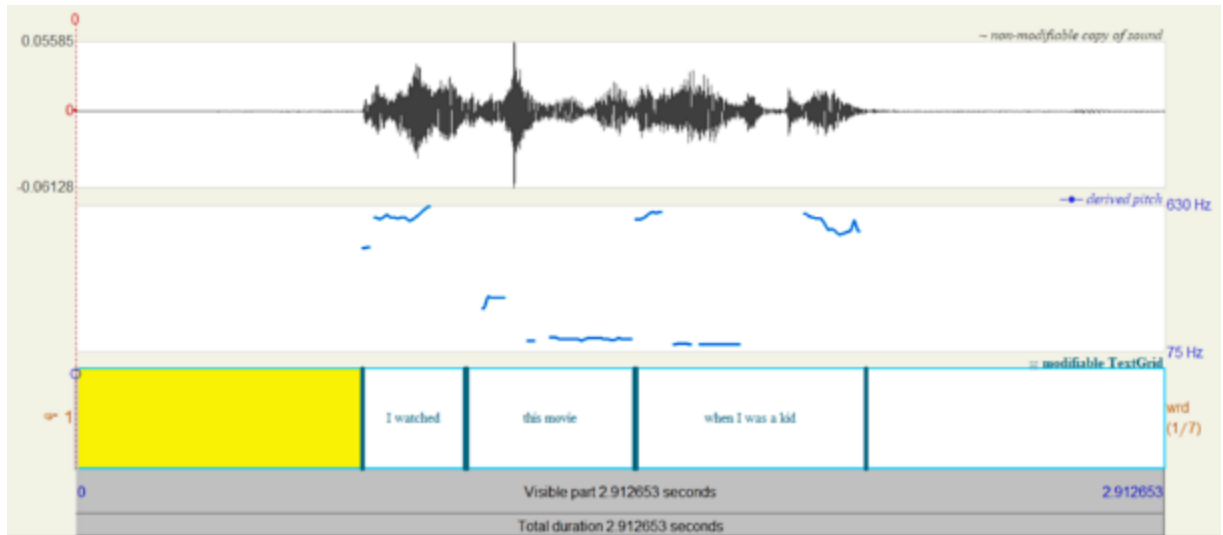
Figure 22

In Figure 22 representing example 34, the pitches are presumably due to the declarative intonation. There is no pause.

(36) This movie, I watched it when I was a kid.
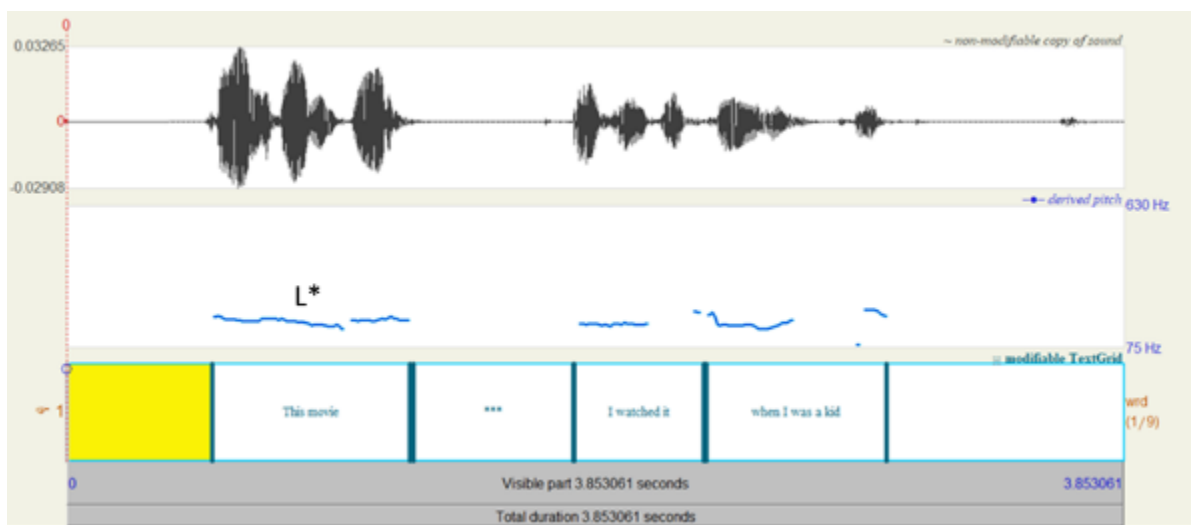
Figure 23

From the figure above, it is possible to observe how the curve trend is regular during the sentence without any pitch on the Topic. Furthermore, there is a pause following the Topic. Hence, even in example (34), the HT has the characteristics of a *familiar topic*. Its intonation seems to be very similar to the L* profile which provides a constant and descendant curve trend.

The remaining example is in the Appendix section.

2. Pragmatic characteristics

The occurrence of different types of intonation is due to different pragmatic.

The first type presents a Topic intonation characterized by uncertainty. In this case, it seems that the speaker aims to clarify the HT, while, the rest of the sentence presents a declarative intonation. Thus, the communicative intention of the speaker is to clarify and define an internal theme with an uncertain condition.

An HT pronounced with the second type of intonation (L*+H) expresses a new argument in the discourse. Here, the speaker aims to emphasize the new theme, independently of the fact that this topic has already been mentioned in the previous discourse or not. When the topic is already mentioned, the realization of L*+H intonation on a repeated theme indicates the need for the speaker to consider it the focus of the conversation. This happens when the speaker wants to clarify something, for instance when there is the need to clarify erroneous or incomplete information on that issue. This condition is particularly frequent in the HT production. Indeed, the majority of this study's examples present these characteristics. On the other hand, when the theme is presented for the first time, the intention is just to introduce a new argument in the discourse. This happens with the *aboutness topic*'s realization.

The last type of intonation presented in this study is characterized by an L* intonation. In this case, the speaker tends to have a lower tone of voice during the Topic realization, because the attention is just focused on that element. Hence, a high pitch on the Topic is not necessary.

3. Interim conclusions

Most of the examples in the corpus are instances of HT already mentioned in the discourse. However, such examples are characterized by the L*+H intonation that identifies the introduction of a new topic. In order to show in a clearer and readable way the results, see the following figures:

Frequency of the 3 intonation types
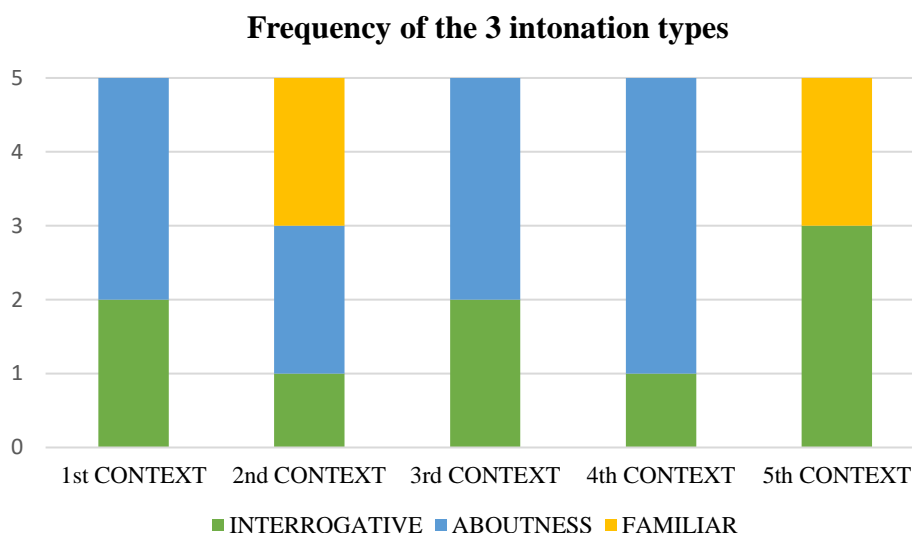
Table 1

This table represents the frequency of each intonation type in the various contexts. As it is possible to observe, in the first context 2 trials out of 5 are with the interrogative intonation, and the other 3 are with the aboutness topic's prosody. In the 2nd context, 1 trial is with the interrogative intonation, 2 are characterized by the aboutness topic prosody, and 1 is with the familiar topic intonation. In Context 3, 2 trials present the interrogative intonation, and the other 3 present the aboutness topic intonation. In the 4th context, there are 4 trials with the aboutness intonation and 1 with the interrogative intonation. The 5th and last context presents 3 interrogative intonations and 2 familiar intonations.

Frequency of the 3 types of intonation in Participants
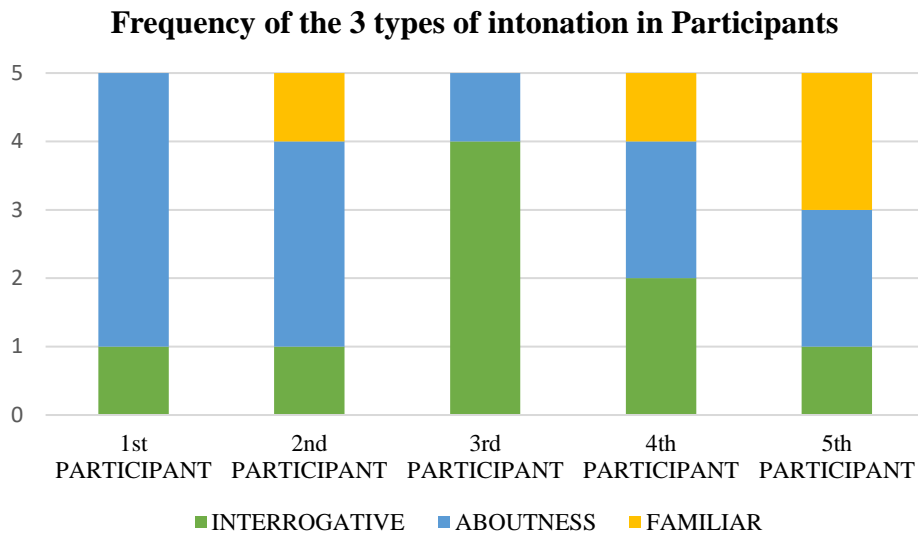
Table 2

This second graphic, instead, shows the frequency of the intonation type for each Participant. Participant 1 presented one interrogative intonation and 4 aboutness intonations. Participant 2 showed 1 interrogative intonation, 3 aboutness intonations, and 1 familiar intonation. Participant 3 presented 4 interrogative prosody and 1 aboutness intonation. Participant 4 presented 2 interrogative intonations, 2 aboutness intonations, and one familiar intonation. Participant 5 presented 1 interrogative intonation, 2 aboutness intonations, and 2 familiar intonations.

Based on these results, it is possible to state that, for the majority, the occurrence of a Hanging Topic in speech is always justified by the speaker's need to place a topic at the center of attention – even if it has already been mentioned. Nonetheless, HT production might have different communicative functions and different reasons. In this work, 12 trials out of 25 exhibit the *aboutness topic*'s intonation, 9 the interrogative intonation, and 4 the *familiar topic* intonation.

The context identifies all the elements of the linguistic environment and communicative situation necessary for the interpretation of utterances.

In my corpus, the contexts are always made by a minimum of two speakers who talk about a defined topic. The purpose of this study was to analyze the spontaneous production of the HT sentence when the context is friendly or familiar. Each context was perceived differently by each participant. Indeed, all participants uttered the sentences according to their perspective. Some added words or sighs, others added body

movements, while others simply repeated the sentences. Body Language will be discussed in Chapter 4.

Chapter 4 – Body Language in Hanging Topic Trials

1 Body Language

Gesture is a fundamental component of language that contributes meaningful and unique information reflecting the speaker's underlying knowledge and experiences. Spontaneous body movements produced in rhythm with speech are called co-speech gestures and naturally accompany all spoken languages.

Specifically, in the realization of these sentences, a consistent alignment has been found between gesture, syntax, and prosody. It is important to note that the moment of maximal extension of the movement is the so-called stroke. The stroke of the gestural component accompanying these sentences is realized in correspondence with the relevant emphatic pitch accent (prosodic component), which in this case is on the Topic. It has already been shown that speech and gesture are aligned in that the stroke is simultaneous with the main accent of the gesture-accompanying utterance (see among the others Kendon 1980; McNeill 1992). In particular, in previous studies, it has been observed that the stroke occurs just before or at the same time as the nuclear accent. According to Chomsky (1995, 2000, 2001, 2008) and scholars, the syntactic representation of a sentence interfaces with the sensorimotor component, which yields its phonological and prosodic form, and with the conceptual system, which gives rise to its interpretation. This theoretical hypothesis suggests no direct link exists between the interpretation of a sentence, i.e., its meaning, and its phonological and prosodic (and gestural) realization, i.e., the sound corresponding to its representation. The relation between the two is necessarily mediated by syntax[20] Thus, any structure that turns out to be realized in association with a peculiar prosodic contour and a specific interpretation is also related to a particular syntactic structure. From this perspective, it is fundamental to investigate gestures Given that the null hypothesis is that their trigger in indeed represented in syntax and then read off at the interface with the sensorimotor component.

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[20] In a nutshell, the internal language of any individual - technically speaking, the I-language - consists, at the very least, of a generative process, interpreted at two interfaces, the sensorimotor interface for the externalization and the conceptual-intentional interface for thought and planning of action. According to Chomsky (2011), the sensorimotor system has to be considered as sound, sign, and other sensory modalities.

The evidence I present in this work suggests that intonation is associated to syntactic constituents, at least in the case of Hanging Topic in spoken English. The gestural component was present in almost all the productions in these experiments. Some speakers used hand and face movements to enrich their utterances. The gestures associated with this construction (HT sentences) represent an interesting subject for the present study. Furthermore, the utterance of the Topic seems to be aligned with the gestures, in thatthey begin and end at the same moment. Here I will focus on Palms Up Open Hands (PUOH), head movements, and eyebrows rising. I notated gestures by means of ELAN[21].

The gestures I study, such as the PUOH, are not iconic in that they are not directly associated with the semantic content of any target word in the sentence. These gestures are in fact connected with the emotion expressed by the speaker and interestingly they are not in association with the semantical content of any target words in the sentence.

It was interesting to observe that each Participant produced a single manual or non-manual gesture. For instance, PUOH was particularly used by Participant 1. Whilst Participant 2 only used the head shaking, even if in one case she also used the gesture of pointing. Participant 3 used both head movements and eyebrow rising instead. Participant 5 just used eyebrow movement. The only participant who did not produce any kind of gestural pattern was Participant 4. But, in addition, it is relevant to highlight a curious phenomenon: Participant 1 seems to be the most creative because, in Context 3, she was the only speaker who really used a book[22]. Indeed, in concordance with the Topic "*This book*" she used a book to show to the interlocutor instead of simply presenting a gestural movement such as the PUOH.

The data have also been presented in the following table to facilitate the reading.

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[21] ELAN is a professional computer software used to manually and semi-automatically annotate and transcribe audio or video Thanks to this tool, it was possible to observe when the gestural components happened in the sentence and their duration. < https://archive.mpi.nl/tla/elan>
[22] This will be discussed later in section 1.1

	Participant 1	**Participant 2**	**Participant 3**	**Participant 4**	**Participant 5**
Context 1	PUOH	Head-bending	Eyebrows movement	-	Eyebrows movement
Context 2	PUOH	Head-bending	Eyebrows movement	-	-
Context 3	Hand + *Book**	Head-bending + hand gesture	-	-	Eyebrows movement
Context 4	PUOH	-	Head movement	-	Eyebrows movement
Context 5	PUOH	-	Eyebrows movement	-	Eyebrows movement

1.1 Participant 1

Based on ELAN analysis, Participant 1 used PUOH in 4 HT trials out of 5. The PUOH is represented in the figure below.

Figure 24

The preparation of this hand gesture, i.e., the movement when the hands leave the resting position, might precede the production of the sentence and last for the entire utterance, or it might also appear in correspondence with a specific word. In some cases, this movement might last even longer than the utterance. Speakers usually realize the gesture with one or even both hands. Moreover, it can also appear together with non-manual gestures such as eyebrows rising or head shaking (Petrocchi, 2021).

In Context 1, Participant 1 showed the PUOH right in conjunction with the Topic. This is graphically demonstrated below through ELAN analysis.
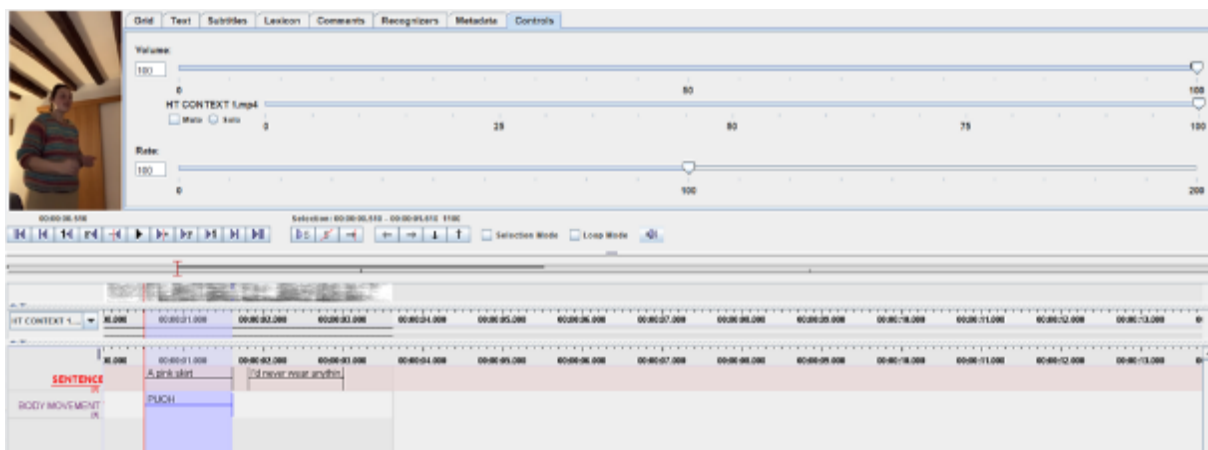
As it is possible to detect, the blue area represents the utterance of the Topic and also the presence of the gesture. In this case, they both start and end at the same time. Hence, the PUOH gesture has *scope*[23] in the sentence.

However, Participant 1 presented the PUOH gesture mainly with both hands. In one case, she realized this gesture with one hand in Context 4.

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[23] When an element of the sentence often encompasses only a restricted area of the utterance is called scope (Petrocchi, 2021).

Figure 25

Here, the participant is realizing the PUOH with one hand. This hand gesture is realized in correspondence with the pitch on the Topic in the sentence. Indeed, as it is possible to observe in the following ELAN analysis, this gesture begins with the Topic's utterance and lasts for its entire utterance.
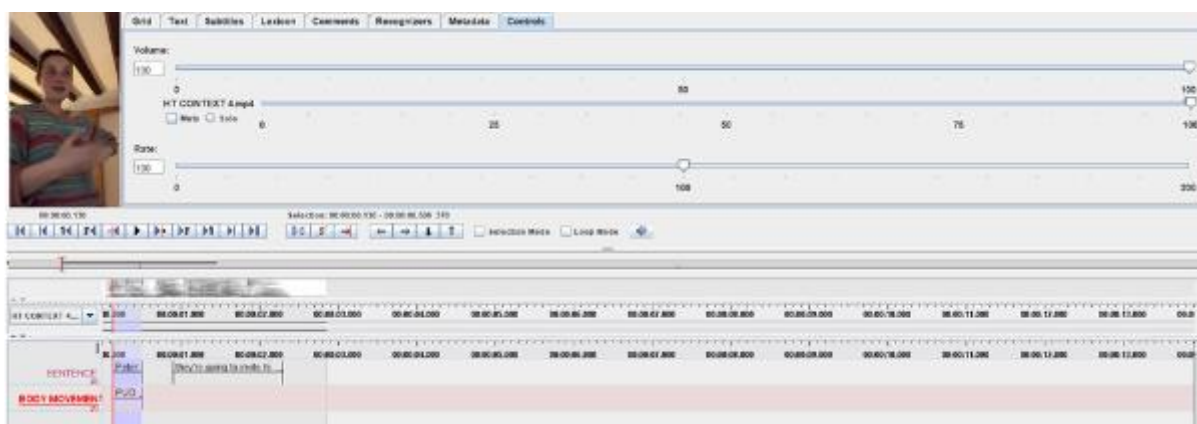
The blue area represents the beginning and the end of the Topic's pronunciation and the PUOH gesture. Thus, the manual gesture seems to have *scope* in the sentence.

Interestingly, in my work Participant 1 tended to enrich the interpretation of the sentence by inserting a new kind of body movement. As mentioned before, in Context 3, the participant makes use of a real book as can be seen in the figure below.

Figure 26

This gesture appears in correspondence with the Topic's utterance. Probably, the use of this movement could be connected to the mandatory meaning of this sentence that she wanted to represent. As a matter of fact, this movement expresses the speaker's attitude: she really wants the interlocutor to read that book. In ELAN analysis it is possible to detect that they begin at the same time.
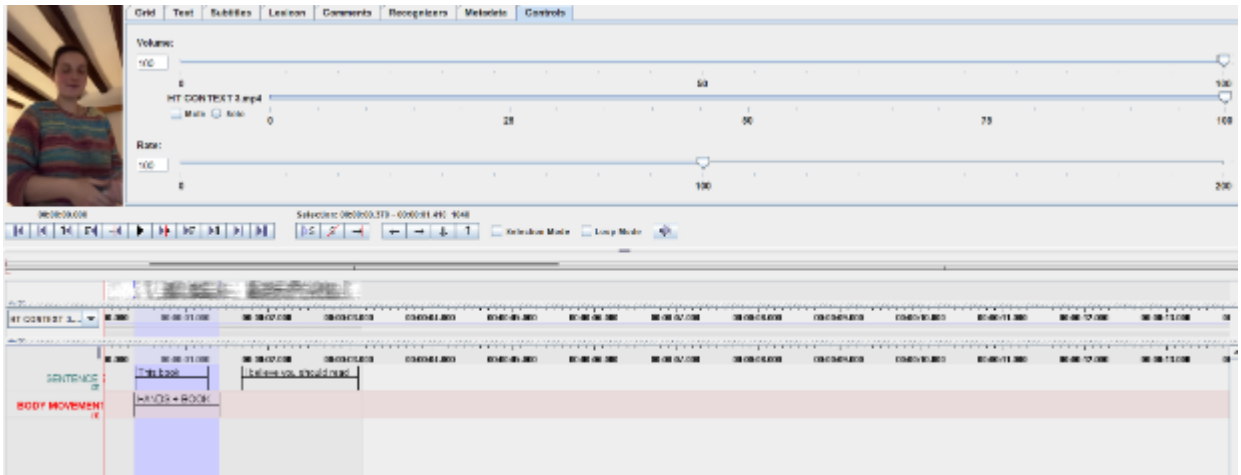
As it is possible to see in the analysis above, in this case, the body movement, which is signed with the name *HAND + BOOK* - that refers to the gesture of showing the book -, seems to last a bit longer than the Topic's utterance. Indeed, this gesture continues also during the break.

The other ELAN analyses are presented in the Appendix section.

1.2 Participant 2

Participant 2 differs from Participant 1 because she did not use the PUOH gesture. Here, Participant 2 used mainly the head movement. She demonstrated the use of gestures in 3 HT trials out of 5.

An example of head movement is represented in the following figure.

Figure 27

In this case, the head appears to be slightly bent to the side during the utterance of the Topic. This head movement signals the relevant emphatic pitch which aligns with the Topic in the sentence. The preparation of this non-manual gesture starts in correspondence with the Topic and lasts for its entire utterance. Now, consider the ELAN analysis below, which refers to Context 1.
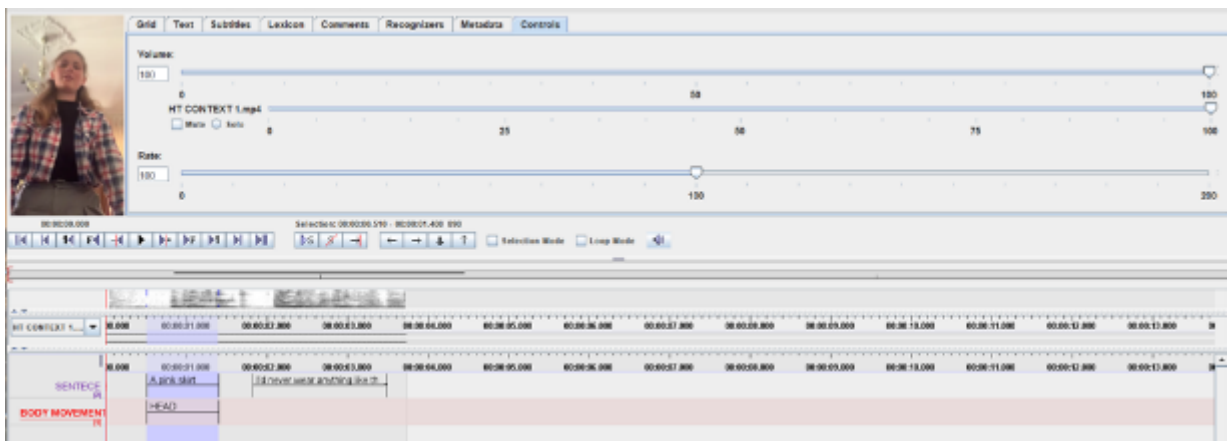
The analysis above shows the same correspondence in the utterance of the Topic and the head movement since the area in blue represents the beginning and end of both. Thus, the head movement seems to have *scope* in the Topic.

Moreover, it was interesting to observe that in one case Participant 2 added the hand movement to the head movement. This is the case of Context 3.

Figure 28

Figure 4 shows the head bending to the side and the hand movement. Precisely, the participant is pointing out something. Probably, she wanted to highlight what she was saying and catch the attention of the interlocutor through the pointing gesture. Based on the following ELAN analysis, it is also possible to claim that these movements have *scope* in the sentence.
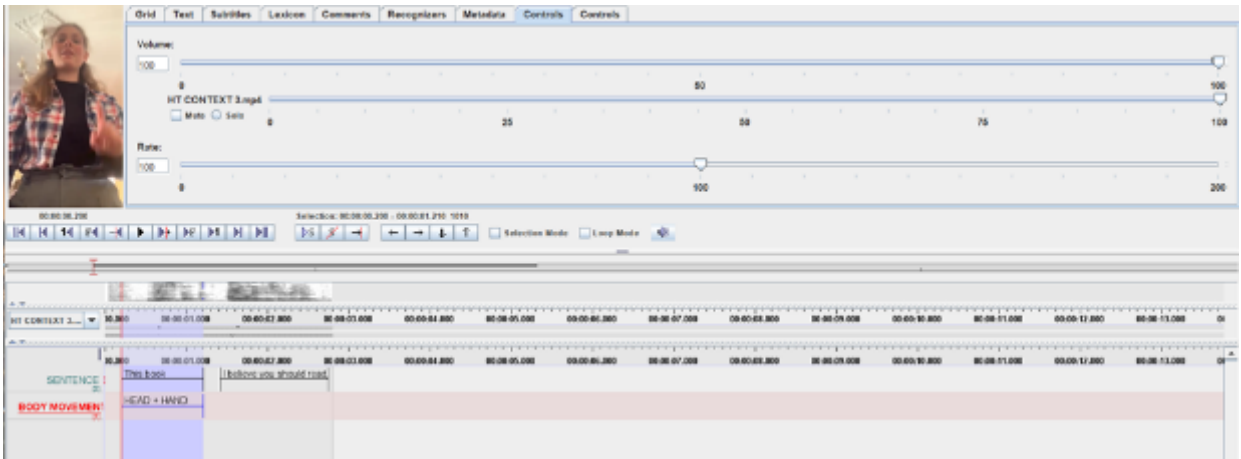
This analysis shows that the body movements and the Topic's utterance last for the same amount of time in the sentence.

The other ELAN analysis is presented in the Appendix section.

1.3 Participant 3

Based on ELAN analysis, Participant 3 demonstrated 4 HT trials out of 5 with the gesture component. Here, the Participant showed the eyebrow movement in 3 trials and the head movement in 1 trial. Specifically, she presented a frowning of the eyebrows. Please refer to the next figure depicting the movement of eyebrows.

Figure 29

In cases such as the one shown in Figure 5, the speaker enriched the interpretation of the sentence, in that she added the disapproval value through the frowning of the eyebrows gesture. Here, I found an alignment between prosody and the non-manual movement, which seems to have *scope* in the Topic. Indeed, the eyebrow movement is realized in correspondence with the pitch on the Topic. This is possible to observe in the following ELAN analysis referring to Context 2.
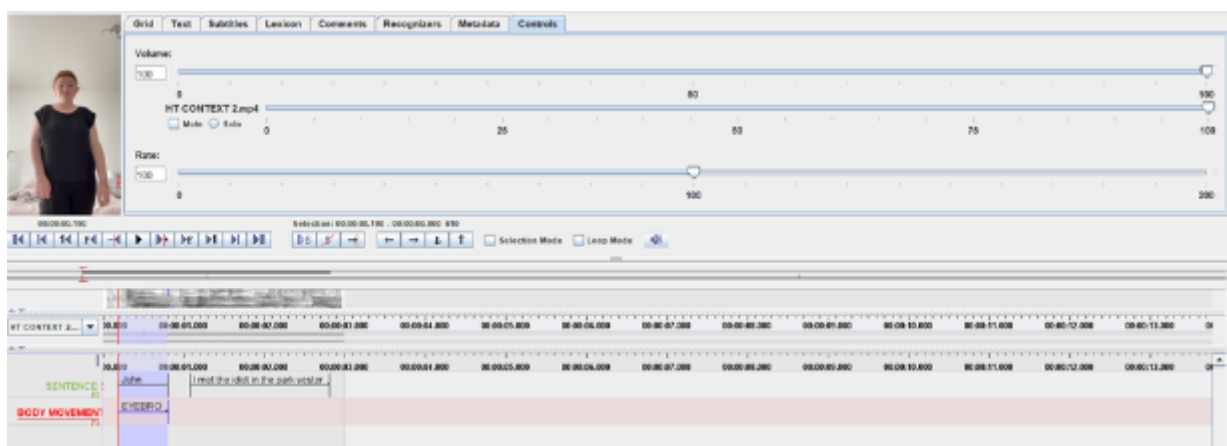
On the other hand, Participant 3 in Context 4 presented the head movement. Please refer to the following image representing the head bent to the side.

Figure 30

The figure above shows the Participant's head bent to the side. Through this gesture, she added catch the attention of the interlocutor precisely to the element of the sentence uttered during the bending of the head. This movement appears in correspondence with the Topic's utterance as can be seen in ELAN analysis below.
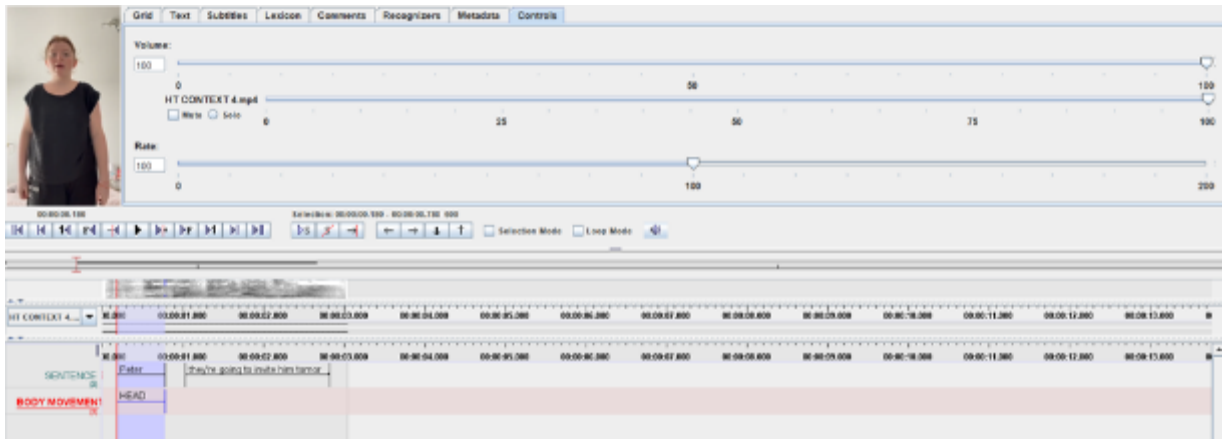
Even in this case, the blue area represents the duration of both Topic's utterance and gesture. Hence, the gestural component has *scope* in the sentence.

The other ELAN analyses are presented in the Appendix.

1.4 Participant 4

Concerning Participant 4, no images and no analyses have been reported since there is a total absence of both.

1.5 Participant 5

Participant 5 presented only the eyebrow movement in 4 HT trials out of 5. Interestingly, this participant is the only one who used a single gesture for all sentences characterized by the gestural component. Probably, this is due to the fact that he is also the only male participant in the study. In the majority of the cases, he just raised his eyebrows, while in Context 1 he frowned the eyebrows. The following image represents the frowning.

Figure 31

Here, the Participant is frowning the eyebrows. The presence of this movement reflects the speaker's disapproval attitude. This movement appears in the Topic's utterance as represented in the ELAN analysis below.
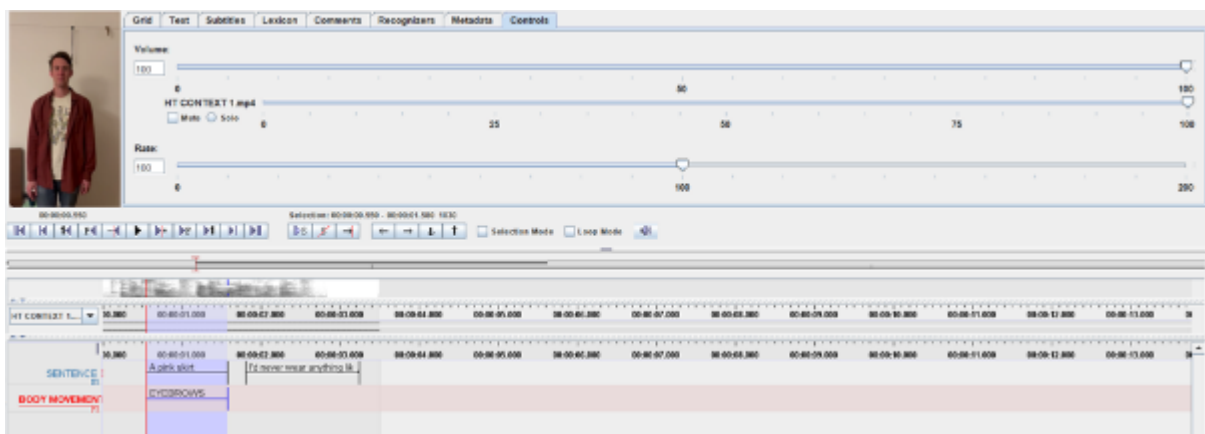
As it is possible to observe in the blue area, the non-manual movement seems to have *scope* on the Topic in the sentence since its duration is the same as the Topic's utterance.

On the other hand, Participant 5 raised his eyebrows in the other Contexts. This movement is represented in the following figure.

Figure 32

Figure 8 represents the raised eyebrows. This movement realization presumably reflects the surprise value of the speaker. Even here, the rising seems to have *scope* in the entire utterance of the Topic. The following ELAN analysis demonstrated it.
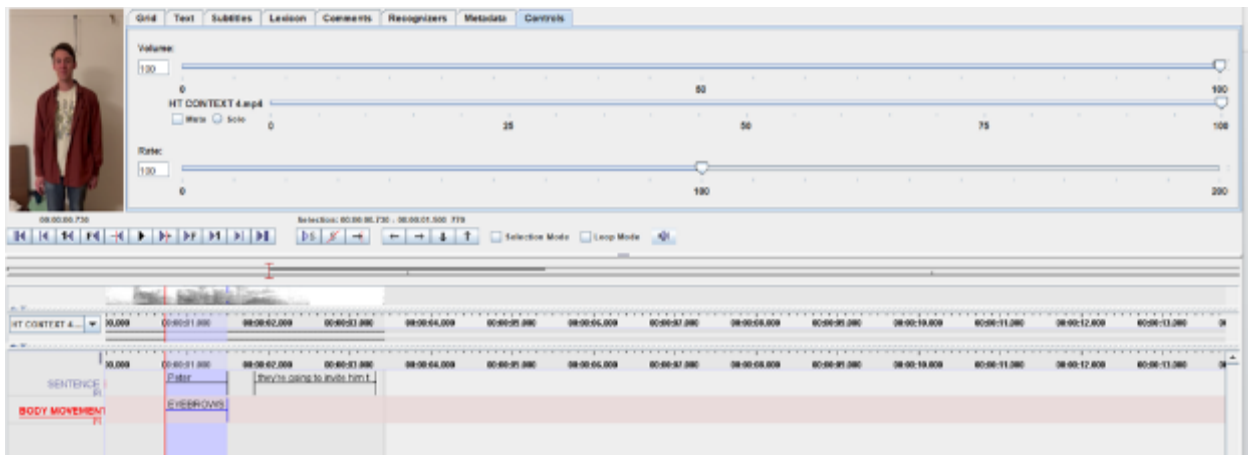
Even here, the blue area indicates the beginning and the end of Topic's utterance and eyebrows' movement.

The other analyses are presented in the Appendix section.

2 Interim conclusions

Based on the analysis, it is possible to claim that the occurrence of Hanging Topics in speech is mostly accompanied by gestures. In addition, the data have demonstrated that speech and gesture co-existed to provide a rich communicative context reflecting the cognitive processes of language production.

Moreover, it was interesting and challenging for this study to observe that the gestural component is different in each Participant. This observation requires further research.

To summarize, 15 HT trials out of 25 presented the gestural components. This has been represented in the graphic below.

Percentage of each gestural component in contexts
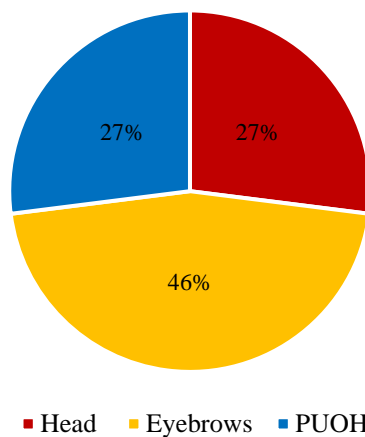
Table 3

As it is possible to observe, 27% of gestures are the PUOH and the other 27% are the head movement. Whilst, 46% of gestures are the eyebrows movement.

Furthermore, the context with the highest percentage of body movement was Context 1 as shown in the following graphic.

Percentage of gestural component in each context
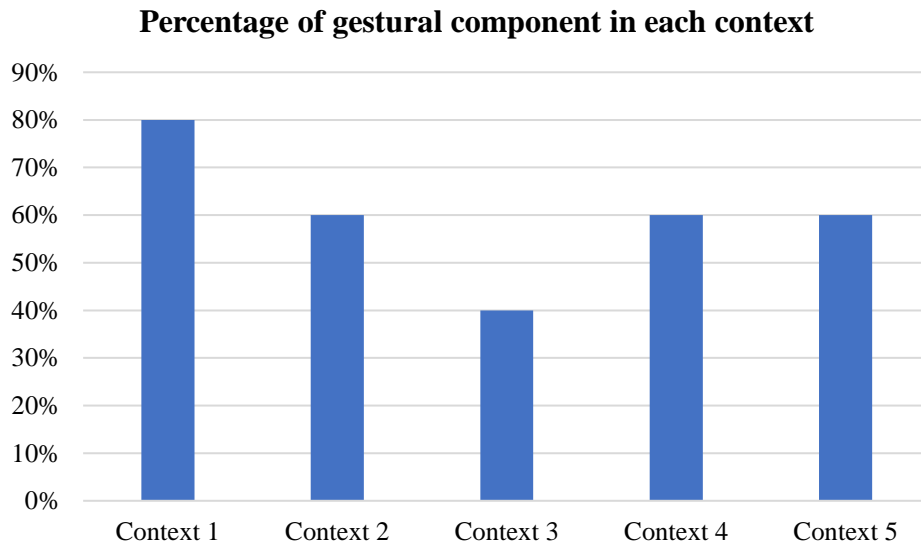
Table 4

Thus, Context 1 demonstrated to have the highest percentage of body movement with 80%. Contexts 2, 4, and 5 show 60% of body movement, and Context 3 presents 40% of the gestural component. Hence, no context shows any gestural movements. So all contexts present the gestural component. However, the gesture of showing the book in Participant 1 in Context 3 was not taken into account in the percentages on the graphs above.

As already mentioned, I observe that manual and non-manual components associated with Hanging Topic sentences start regularly with the Topic in the sentence. In this view, all the movements seem to have *scope* on the Topic itself. Each body movement has been associated with a specific emotional expression. The table below summarizes the existing types of body movement and the emotions related to them.

GESTURAL COMPONENT	PARTICIPANT'S ATTITUDE
Palms Up Open Hands	⟶ Declarative Intention
Head	⟶ Catching the attention Intention
Frowned Eyebrows	⟶ Disapproval Intention
Raised Eyebrows	⟶ Surprise Intention

According to my results, the Hanging Topic sentences' special values are also given by their peculiar intonational contour and the gestural component. Furthermore, as stated before, I registered an alignment between prosodic and gestural components. The alignment revealed underlies the importance of gesture. Hence, gestures seem to be triggered by the syntactic property, namely the left-peripheral head.

My results seem to be coherent with these data and allow me to hypothesize that linguistic and affective functions of manual and non-manual components in Hanging Topic sentences contribute to expressing their peculiar prosody giving the speaker's attitude. It would be very interesting to check, whether by expanding the target group of participants, the presence of gestures still remains.

Conclusions

The aim of this study was to conduct empirical research based on a marked construction in spoken English. Hence, the purpose was to clarify the characteristics and the contexts where Hanging Topic is used.

The reason why I chose to conduct this type of study is mainly dictated by the need to ascertain the actual occurrence of this construction in the language and, subsequently, to proceed to a more in-depth analysis on the basis of the data collected. In this work, an attempt was made to compose a *corpus* in order to have a particularly varied panorama from which to set the appropriate conclusions.

The goal of this study was not to deepen the argumentation on Hanging Topics from a syntactic point of view but to begin by introducing HT in syntax on the basis of previous studies dedicated to such construction. However, starting by explaining HT in syntax was useful for defining its characteristics by comparing it with another type of marked construct, CLLD. In relation to this work, the two constructs appeared to have similar syntactic characteristics which were then clarified through the tests proposed by Benincà and Poletto in their study (2004). Among the other differences, it emerged that Hanging Topic, unlike Clitic Left Dislocation, can have different types of reprise. Indeed, it was possible to isolate six kinds of relationships existing between Topic and reprise in previous studies. For this work, I only took into account the reprises useful for conducting research. Thus, only three types were considered. Furthermore, another important distinction between HT and CLLD is the prosody: Hanging Topic requires the occurrence of a pause between Topic and the sentence, whereas in Clitic Left Dislocation this is not provided for.

Subsequently, an analysis of the prosody was conducted. In addition, it was possible to classify three different types of HT starting with the studies of Cinque (1977). This analysis was carried out using the Praat software in order to study intonation by looking at the course of the F0 curve and identifying the pauses and the types of intonation of the Hanging Topic. The detection of the HT's intonation was done through the ToBI system. In the end, three types of prosody have been found. The first type is the same as the one identified by Cinque in his work (1977); the other two were detected in the course of this work and assimilated to the two intonations that

characterize respectively those of *aboutness* and *familiar topic* referred to by Frascarelli and Hinterhölzl (2007).

The data that emerged from the analysis of intonations are a matter for reflection on the intrinsic characteristics of the Topic in this type of construction. Namely, the Hanging Topic is almost always a topic with the characteristics of an *aboutness topic*. Nonetheless, it reaches high peaks on the Topic in contrast to what happens in the realization *aboutness topics* in other contexts. Indeed, in the aboutness topic, the prosody's curve trend is represented by a linear and homogenous development during the whole utterance. This hypothesis has been formulated thanks to the composition and subsequent consultation of the corpus where it is clearly possible to observe that the majority of the Hanging Topics produced and transcribed present a pitch on the Topic and a linear and homogenous curve trend on the rest of the sentence. In fact, the aboutness topic intonation is the one with the highest percentage in Hanging Topic Trials as can be observed in the following graph.

PERCENTAGE OF THE TYPES OF INTONATION IN HT TRIALS

Familiar Topic 16%

Aboutness Topic 48%

Interrogative Topic 36%
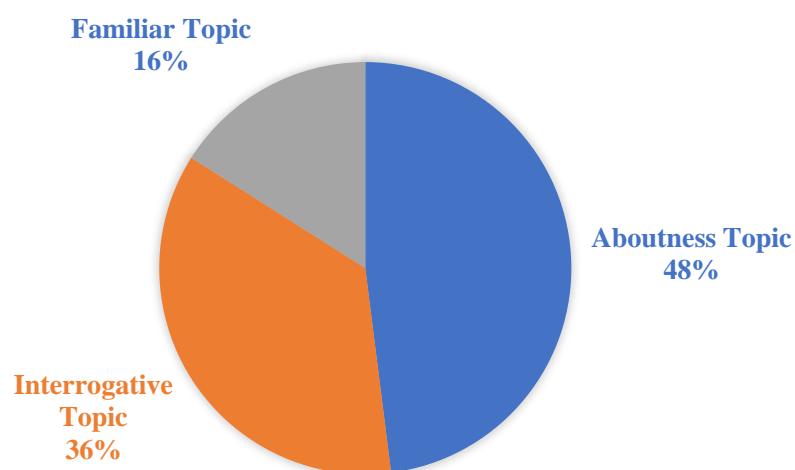
Table 5

With regard to contexts, I constructed 5 contexts favorable to the use of Hanging Topic. Thus, each context had an appropriate sentence. Each sentence was analyzed by

an expert linguist native speaker which had the aim of checking the context to elicit the sentence. Obviously, to address this work I had to interview only native English people. In fact, the argumentation put forward in the course of this work does not take into account the differences between diastatic and diaphasic varieties of language in the production since it was decided to consider and examine a specific target group of speakers with mostly homogeneous requirements.

Nonetheless, it would be interesting to extend the group target of participants to observe the potential changes with different levels of education and age. Furthermore, expanding the corpus could also facilitate the identification of other possible types of intonation that might characterize the production of Hanging Topic and a following extension of the analysis of contexts.

However, an interesting cue could be the analysis and study of the situational contexts hosting the use of HT without relying on the corpus, but directly on data collected in the field, through research involving the direct participation of a defined number of speakers with different ages and levels of education, who are given more conversation starters concerning topics of various kinds in order to encourage the initials of real debates and argumentations. This is to study the actual incidence of the Hanging Topic construct within spoken English.

Last but not least, I detected that the HT trials have been accompanied by a gestural component. Indeed, this work also presents the annotation with ELAN of the manual and non-manual gestures. Interestingly, this marked construct has been associated with a specific prosodic contour and a definite gestural pattern for 4 participants out of 5. According to the results, the Hanging Topic sentences' special values are also represented by a specific emotional value which is expressed through a specific gestural component. In this work, 4 gestural components were detected, namely the Palms Up Open Hand, the head movement, the frowned eyebrows, and the rising eyebrows. Each of them has been related to a definite attitude:

1. PUOH enriches the declarative intentions of the speaker;
2. The head movement represents the want of the speaker to catch the interlocutor's attention;
3. The frowned eyebrows refer to the disapproval intention;
4. The rising eyebrows represent the surprise value of the speaker.

To facilitate the reading of speakers' attitudes, the data have been graphically represented[24].

PERCENTAGE OF THE TYPES SPEAKERS' ATTITUDES IN HT TRIALS
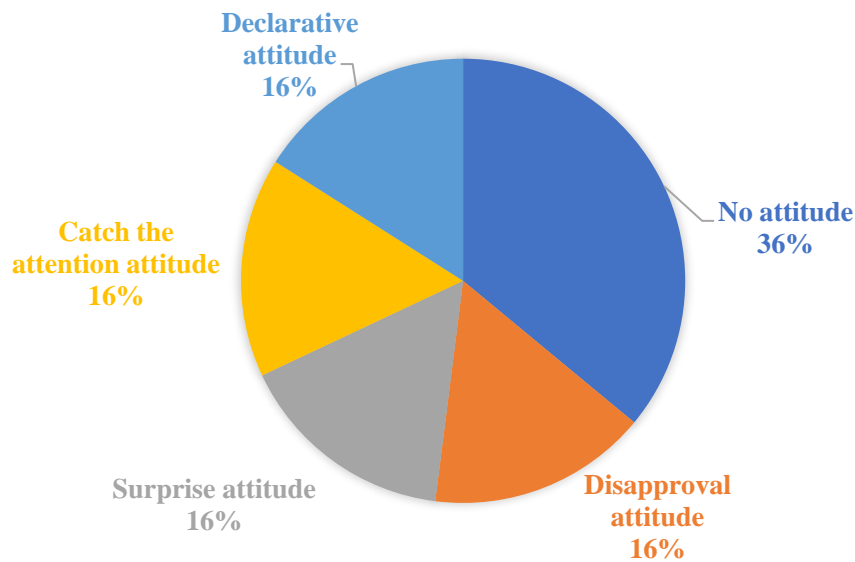
Table 6

To conclude, my results allow me to hypothesize that linguistic and emotional functions of the gestural component in Haning Topic sentence contribute to expressing its peculiar prosody giving the speaker's attitude. Likewise, for the gestural component, it would be very interesting and stimulating to widen the target group of participants to see what kind of manual and non-manual gestures are present and if they are present.

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[24] It should be borne in mind that the percentage relating to the absence of attitude, and thus the absence of the gestural component, is so high because one participant did not present any in all contexts.

The Appendix

This section is devoted entirely to the representation of the analyses which have not been reported in Chapters 3 and 4.

Firstly, the Praat transcription analyses are reported below. They are divided by category.

Interrogative intonation with a short pause
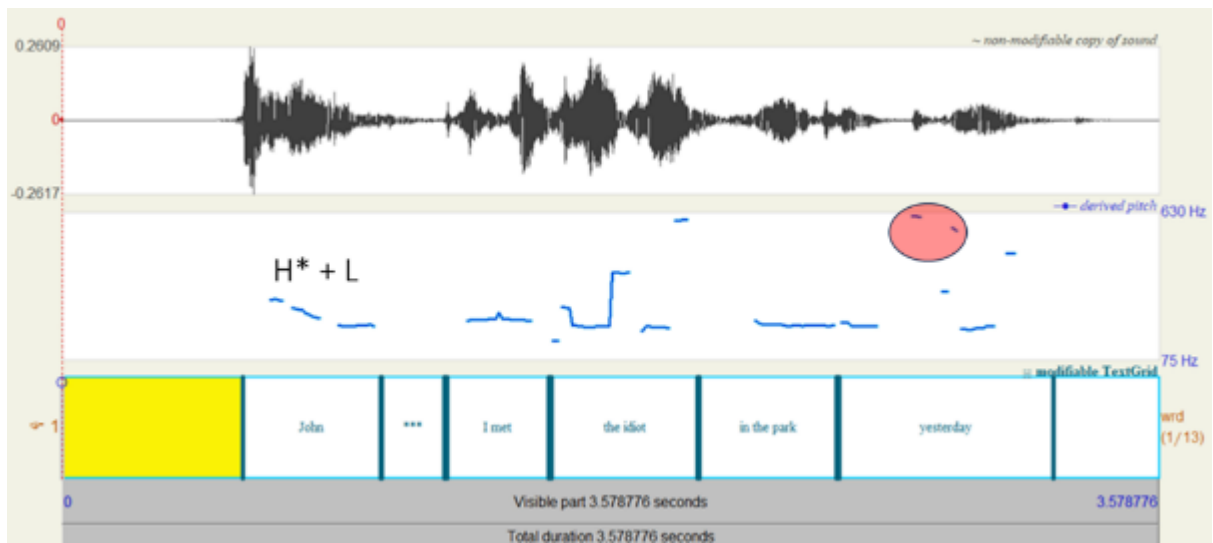
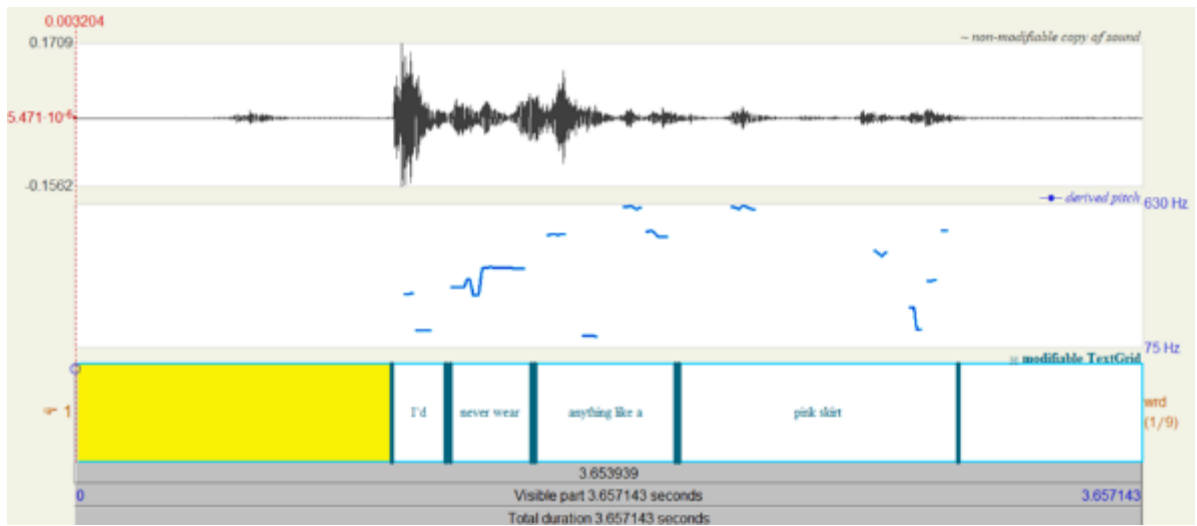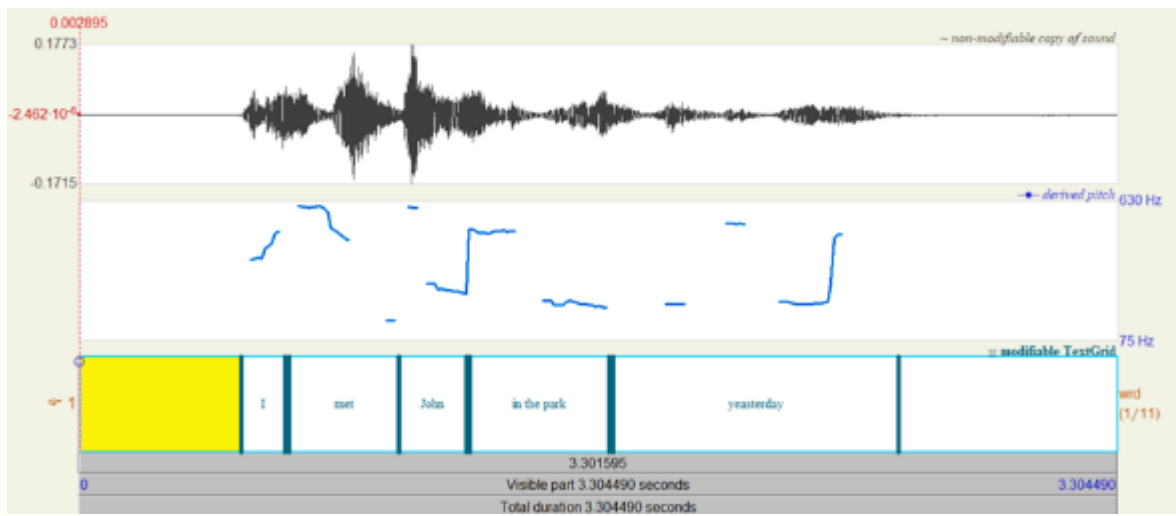*Figure 33, Participant 3*
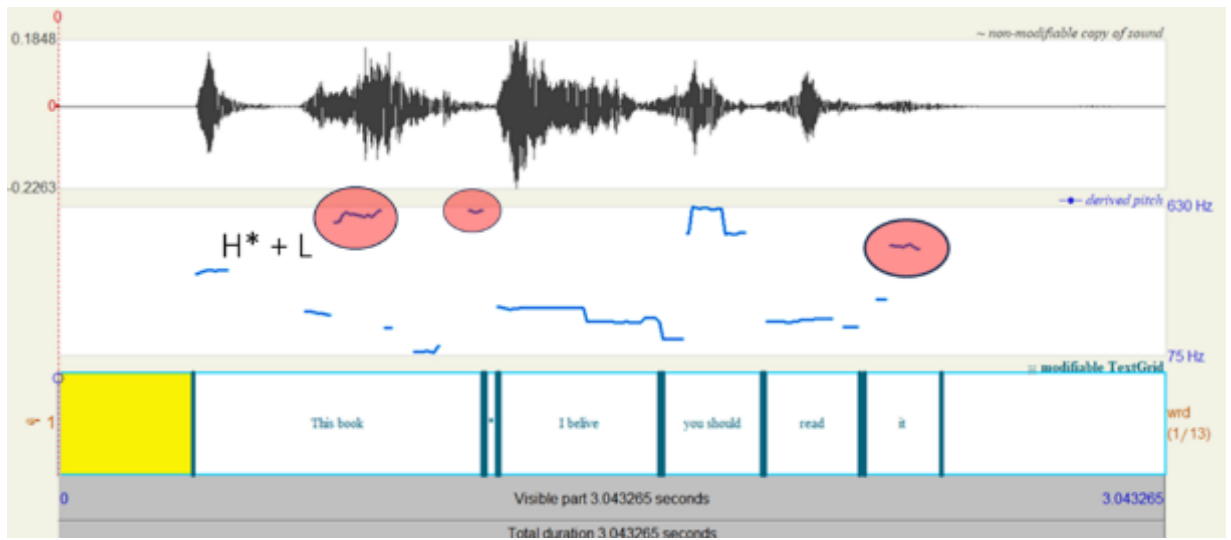
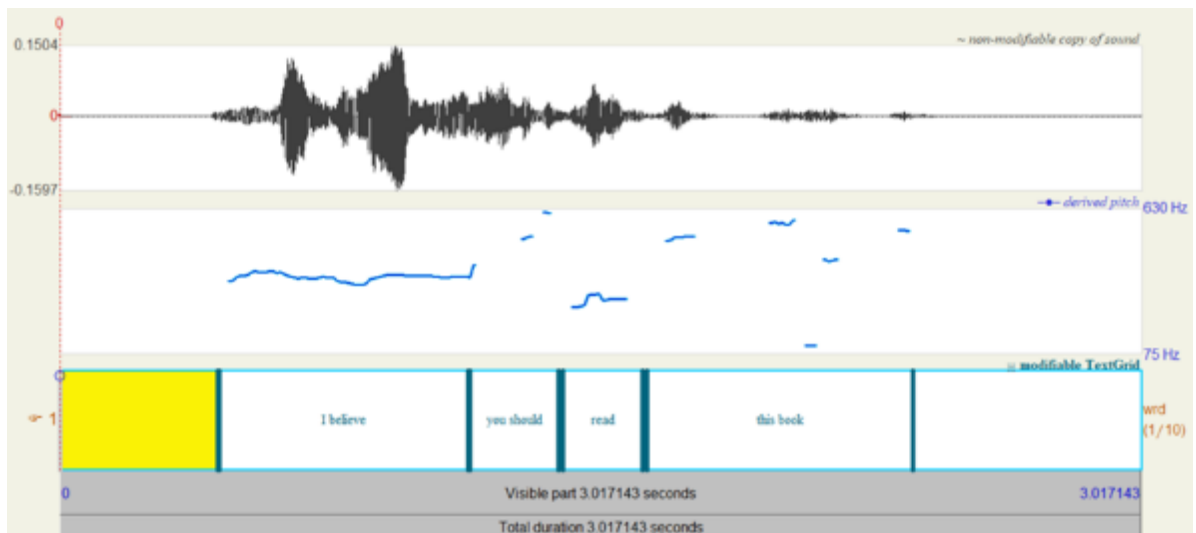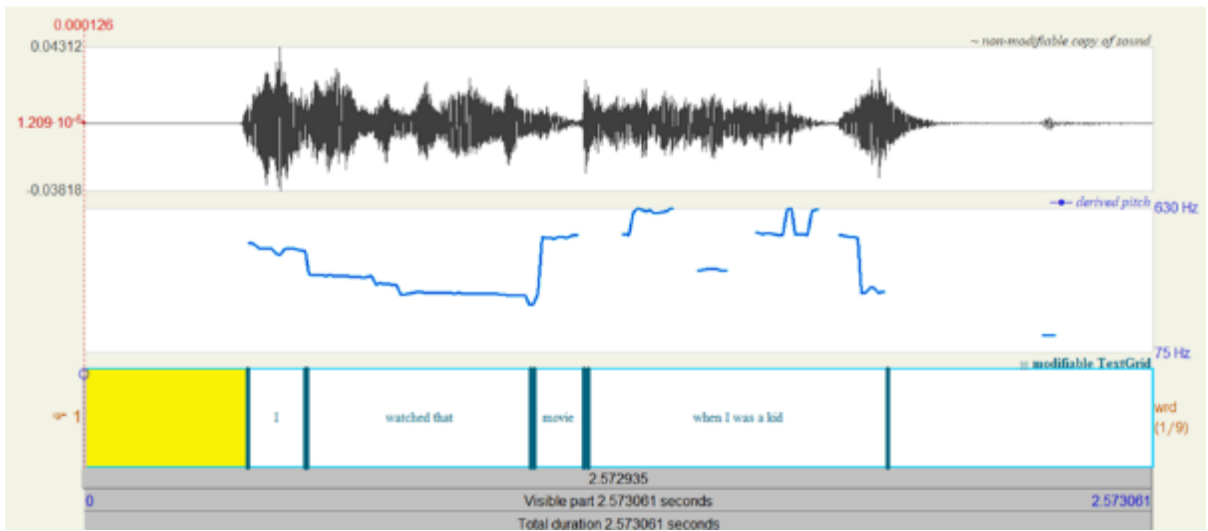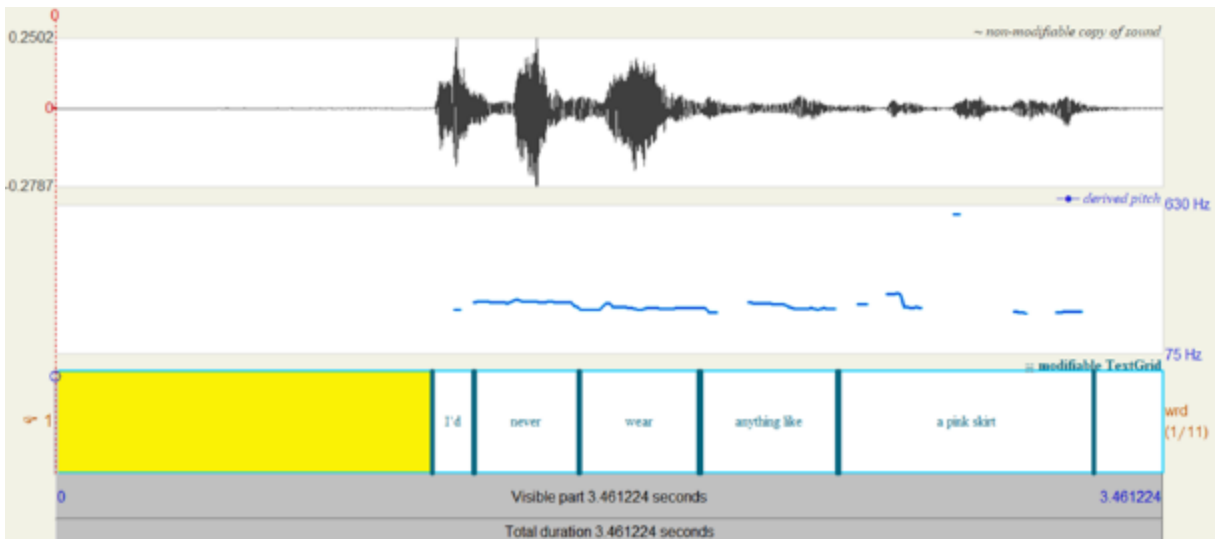*Figure 34, Participant 3*
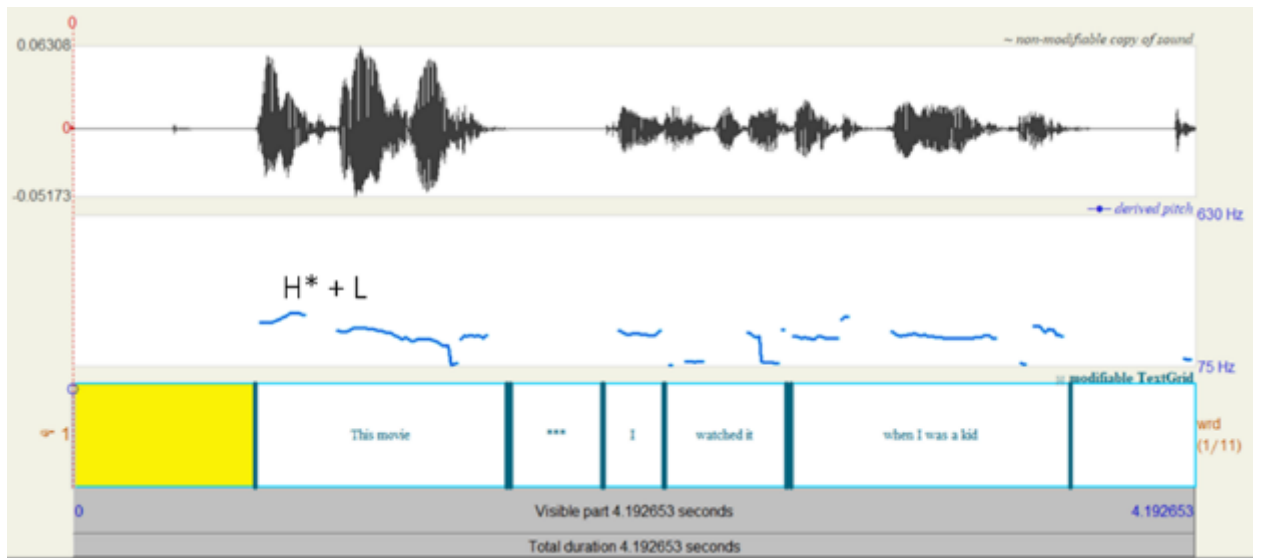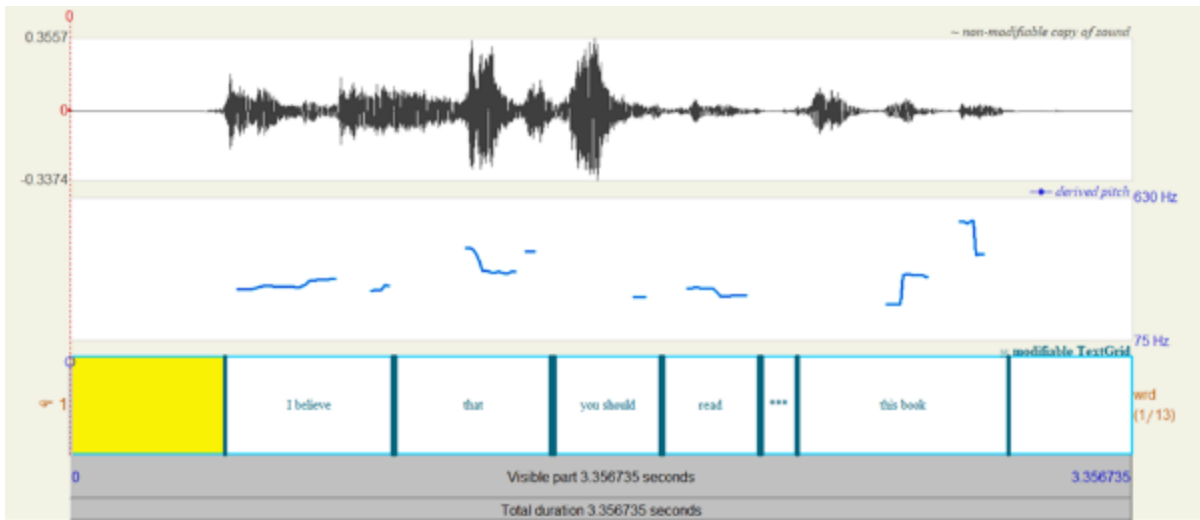

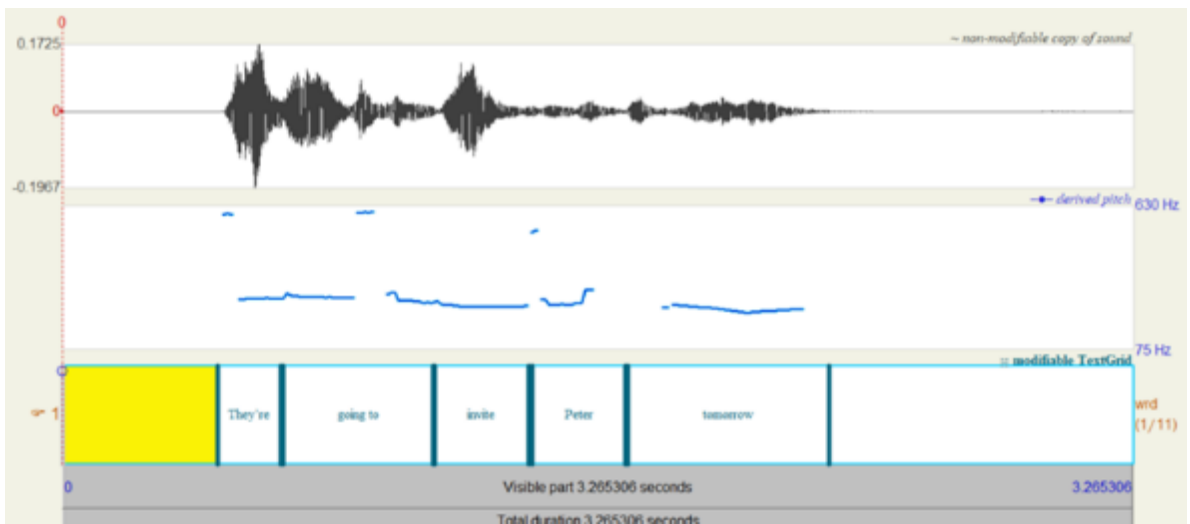*Figure 35, Participant 3*
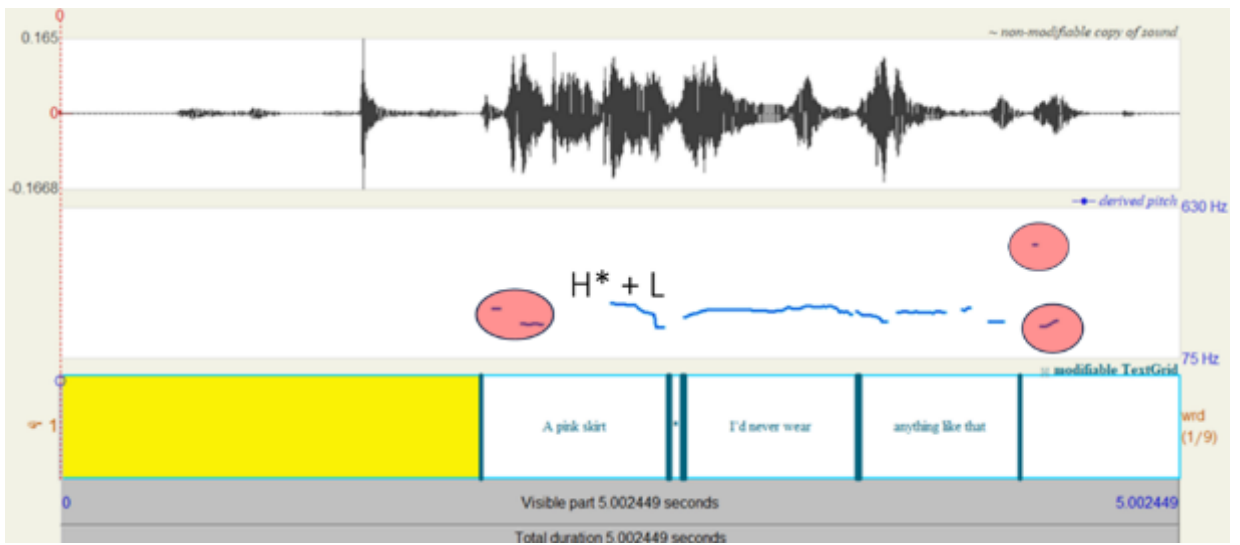
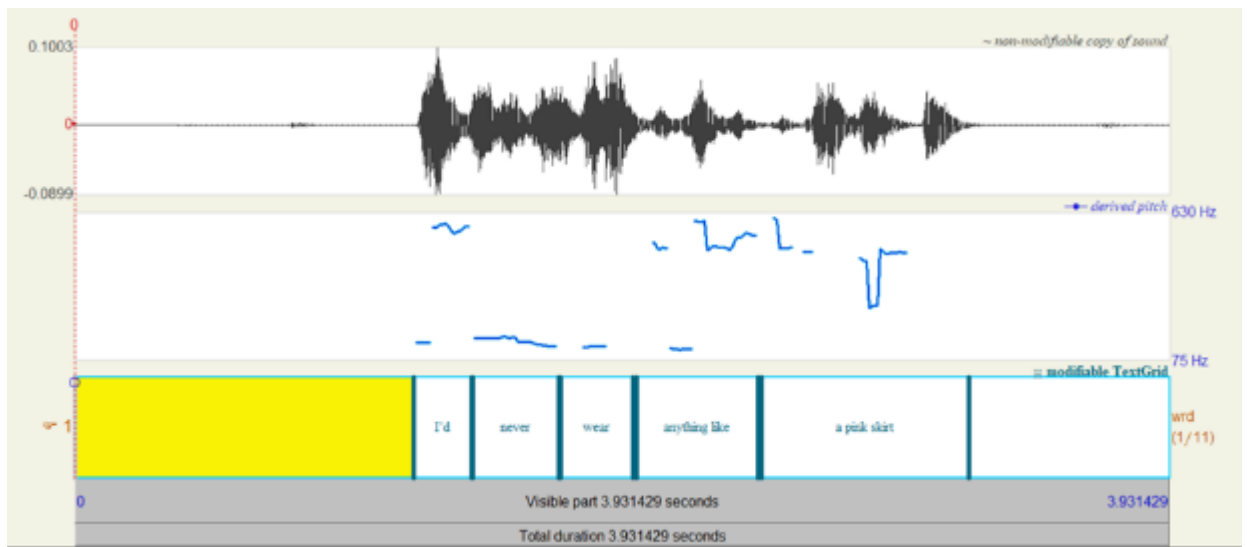*Figure 36, Participant 4*
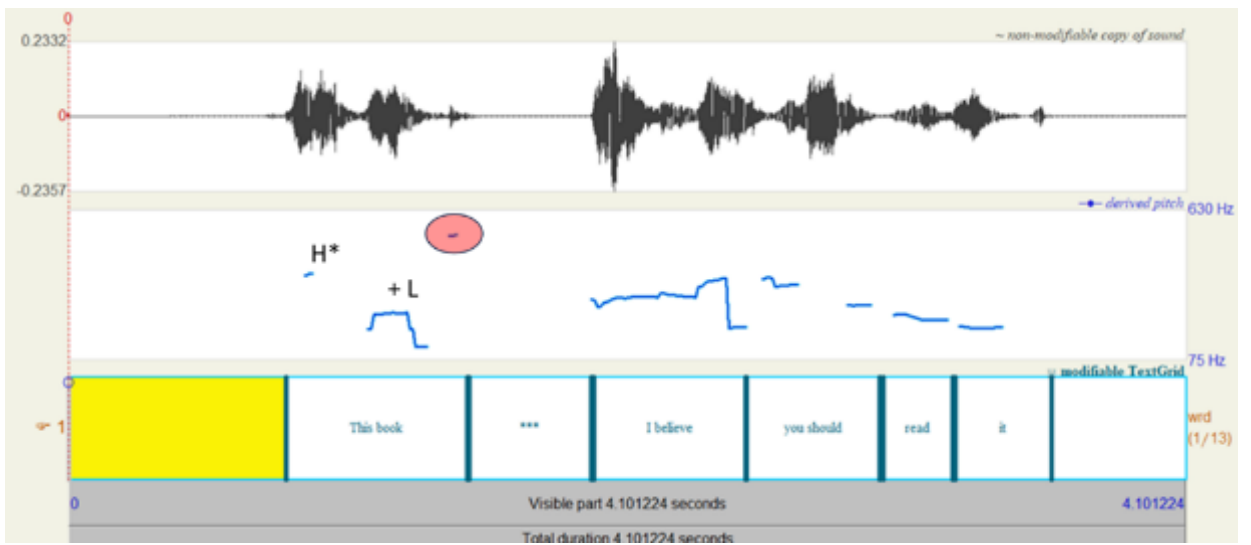
Figure 37, Participant 4
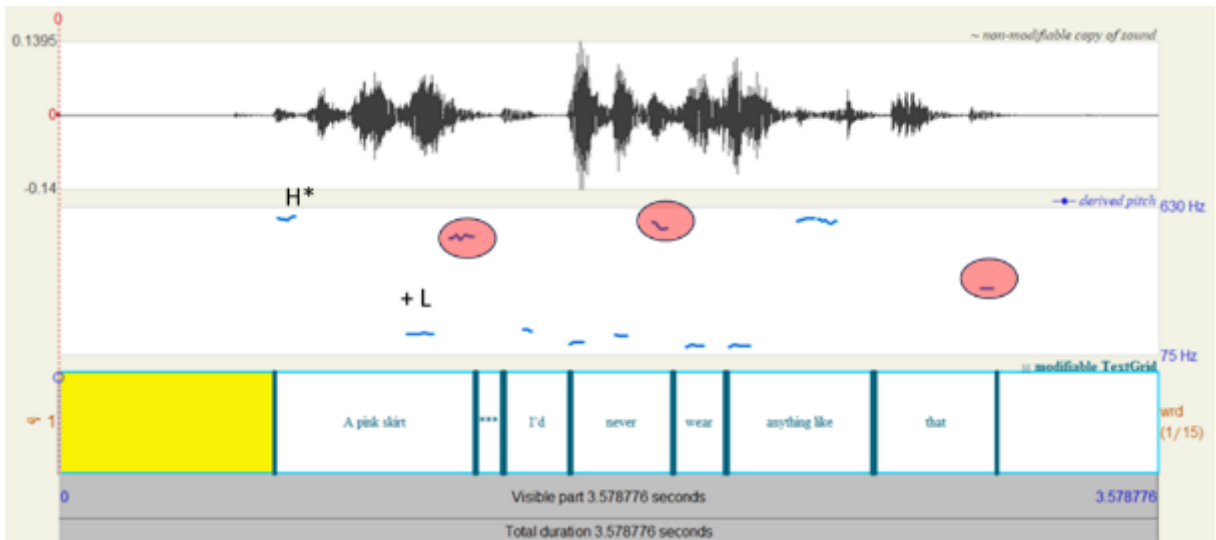
Figure 38, Participant 5

Intonation on the model of Aboutness Topic
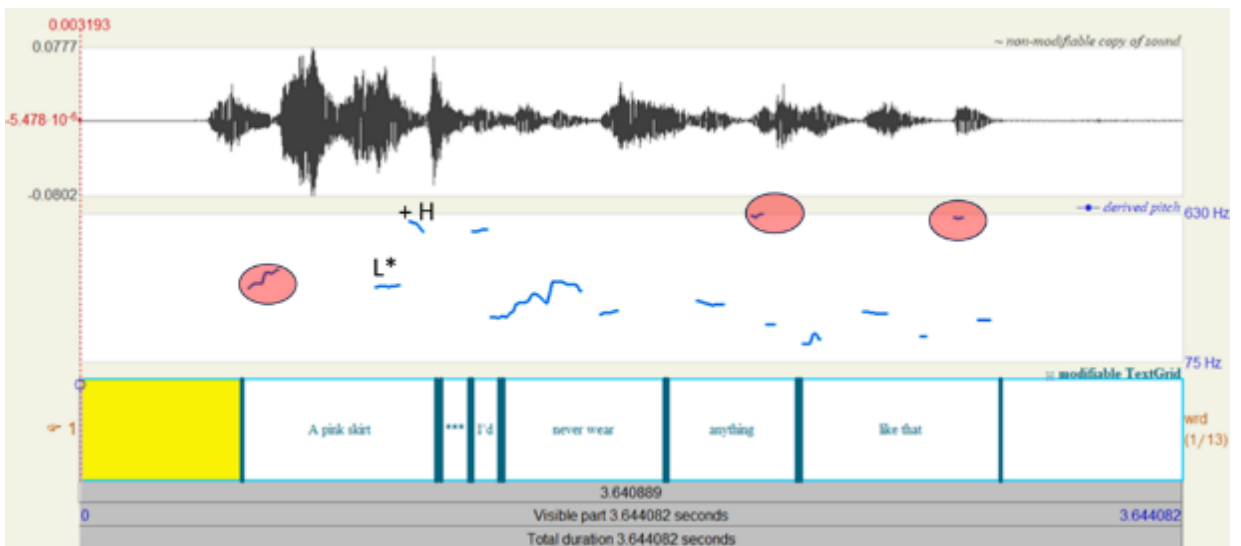
Figure 39, Participant 1
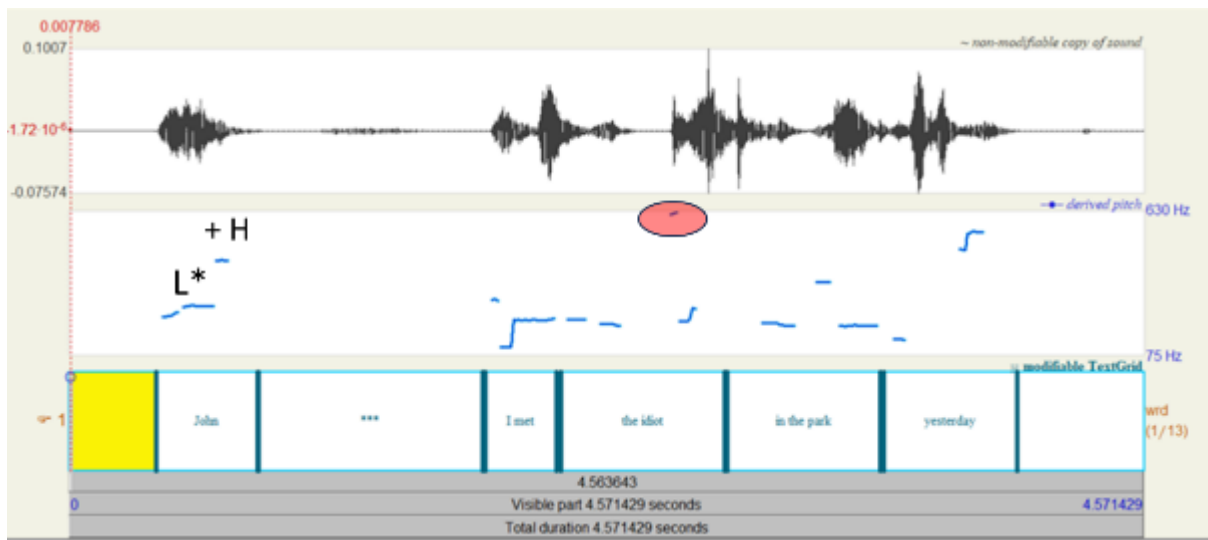
Figure 40, Participant 1
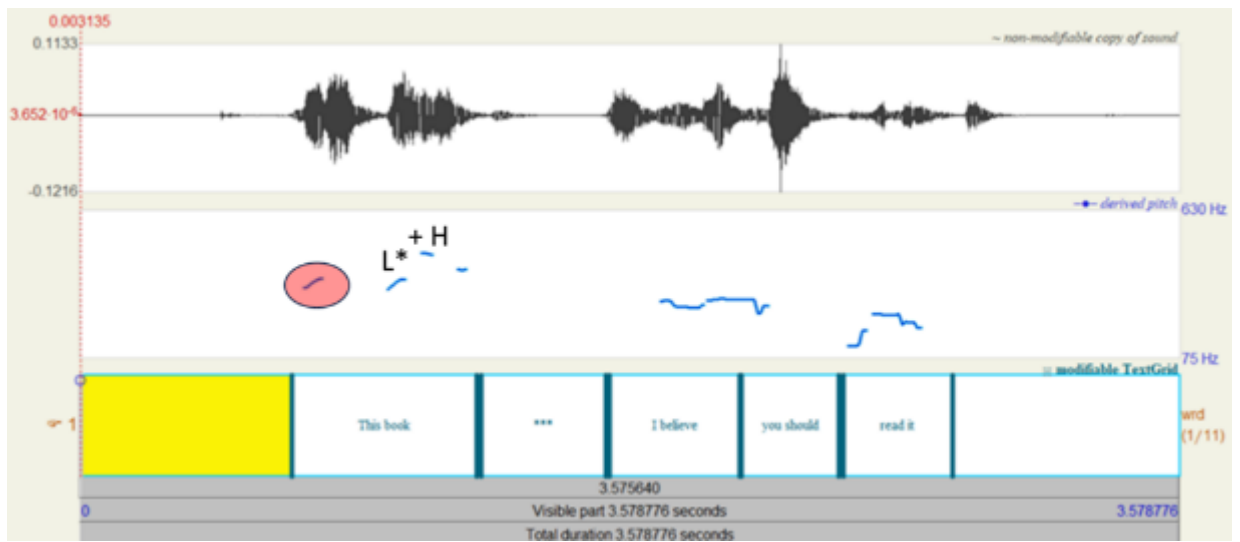
Figure 41, Participant 1
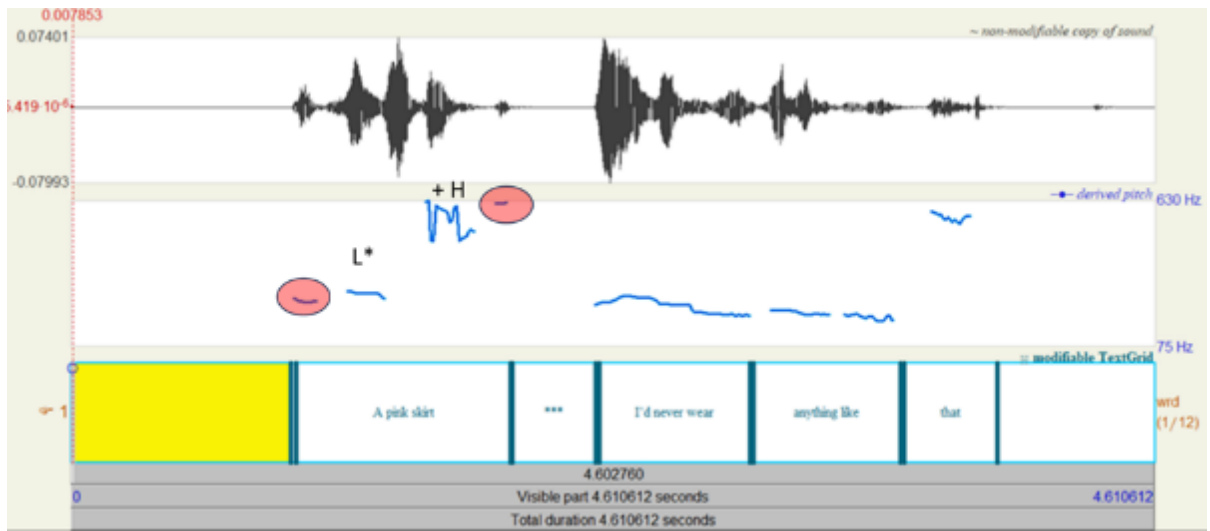
Figure 42, Participant 2
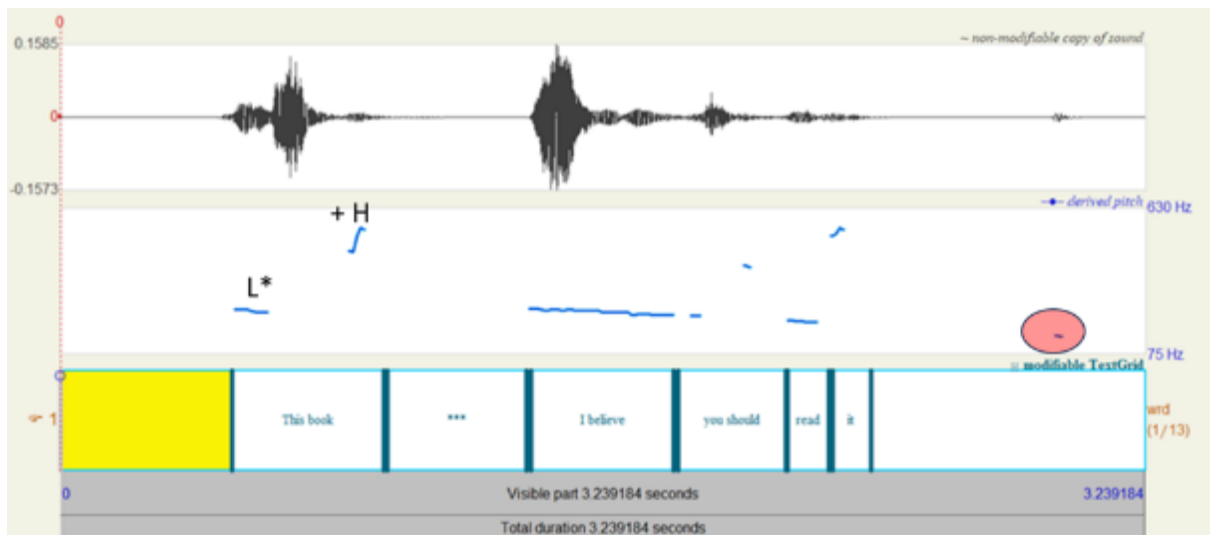
Figure 43, Participant 2
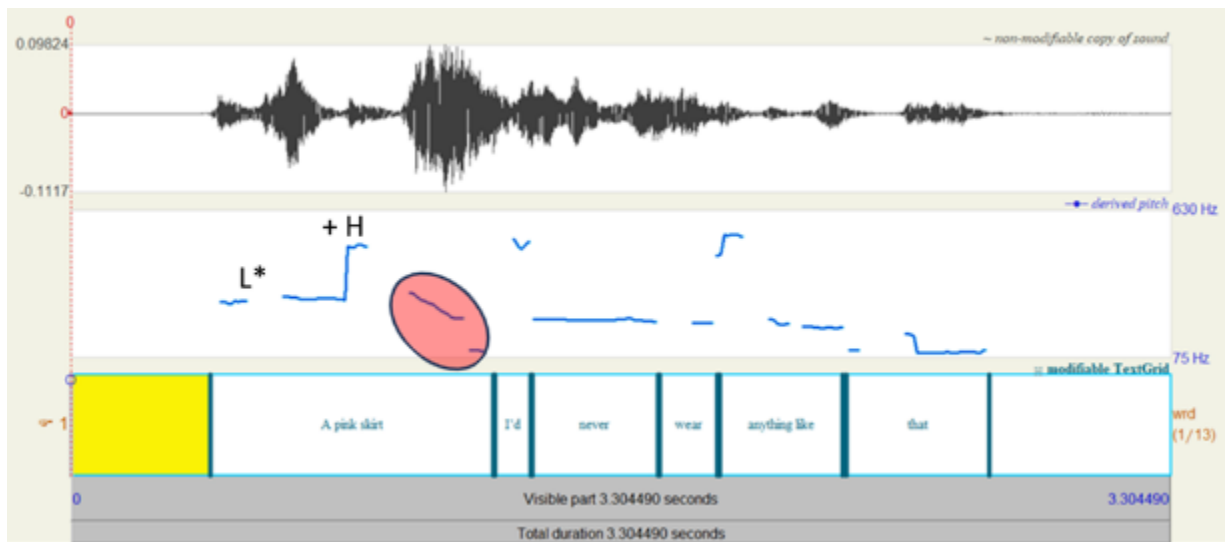
Figure 44, Participant 3
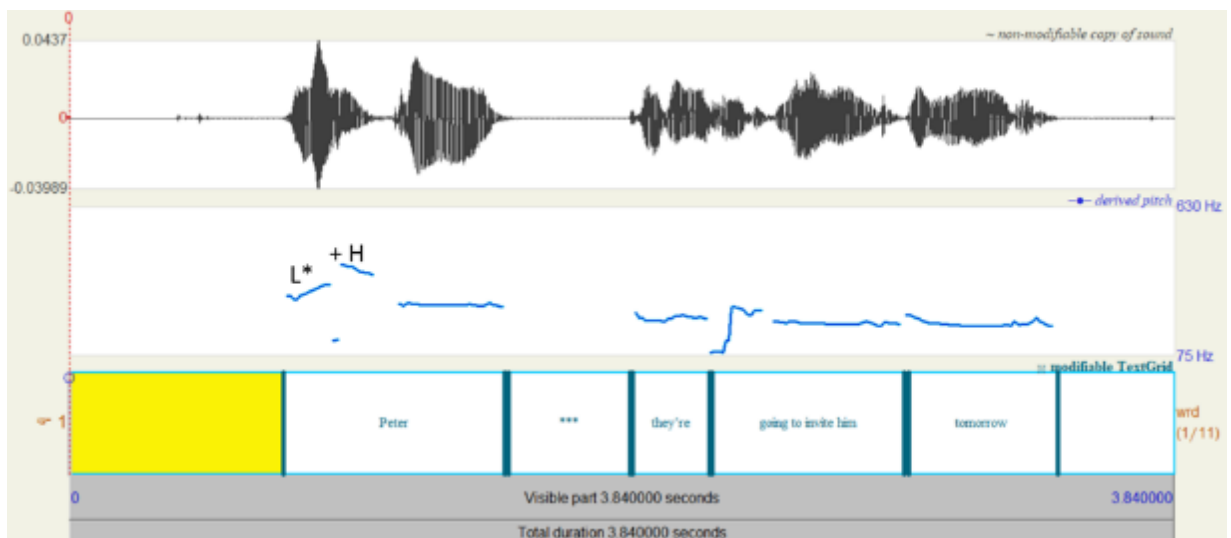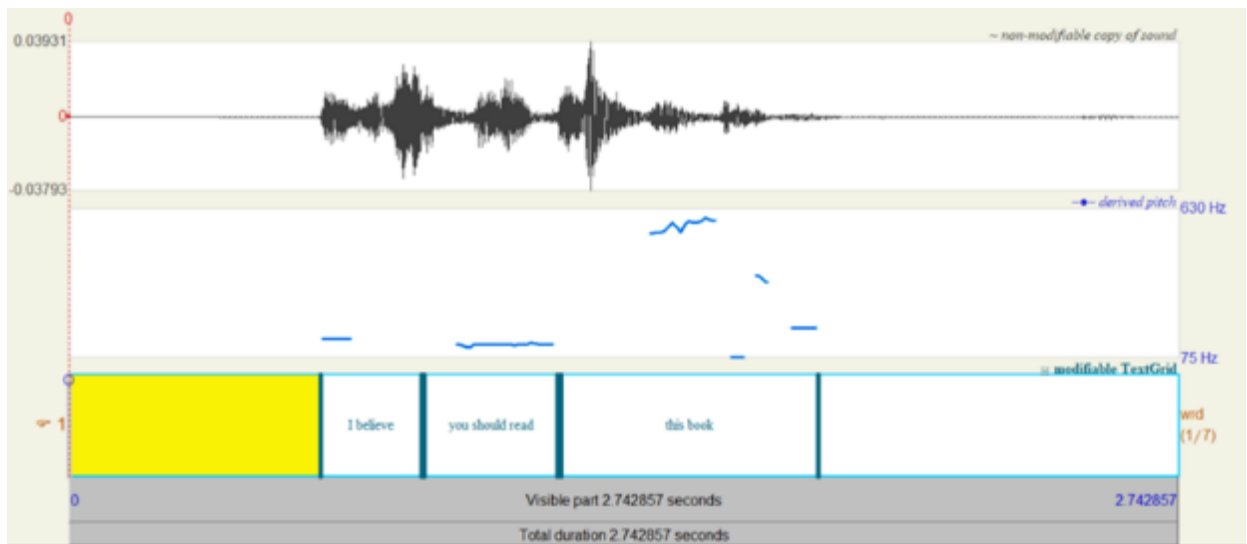

Figure 45, Participant 4
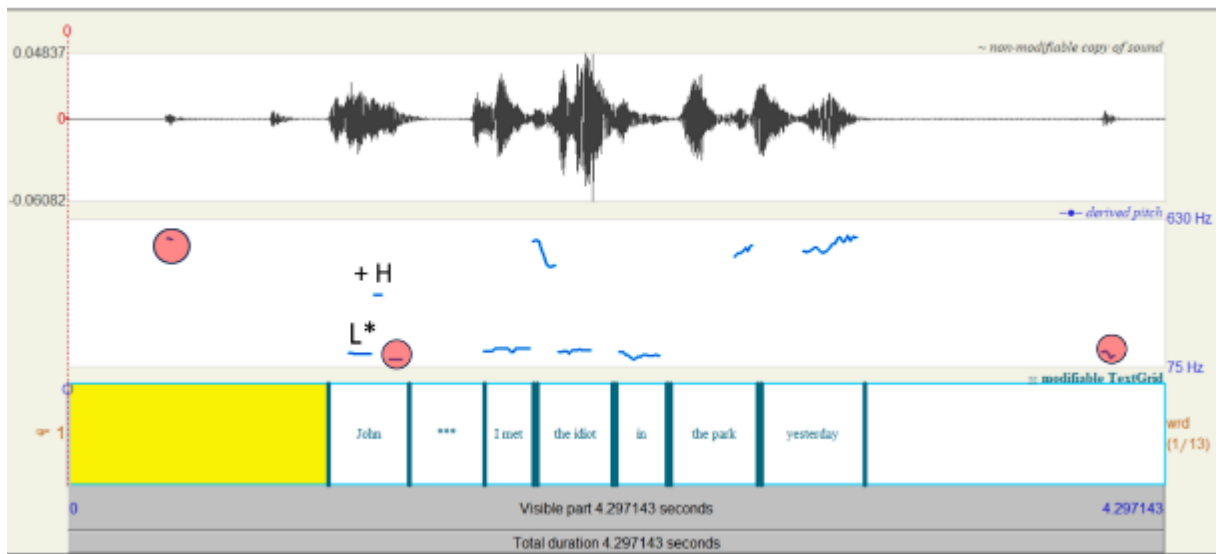
Figure 46, Participant 5
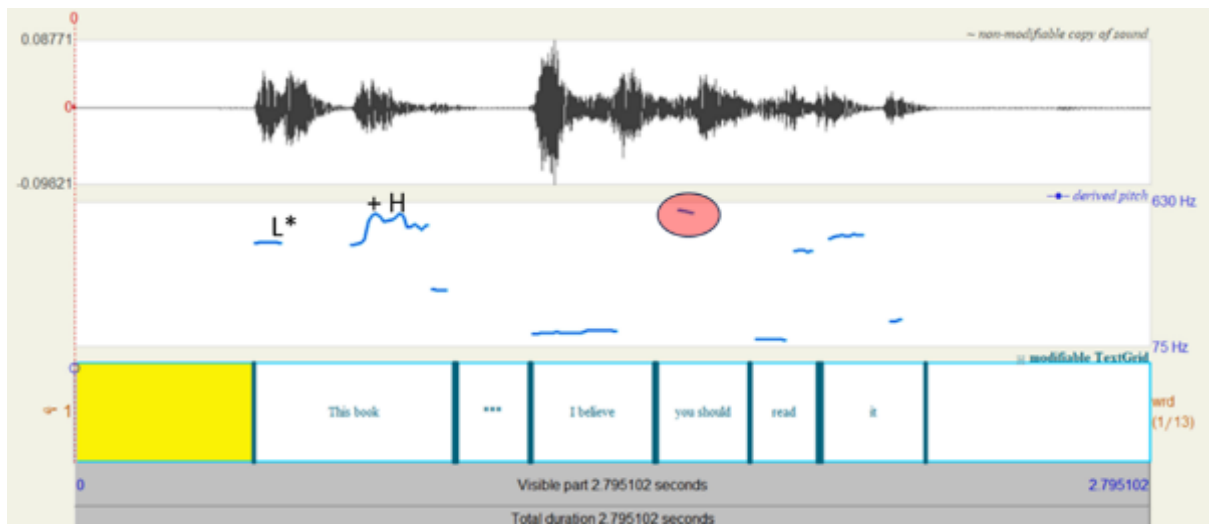
Figure 47, Participant 5

Intonation on the familiar model
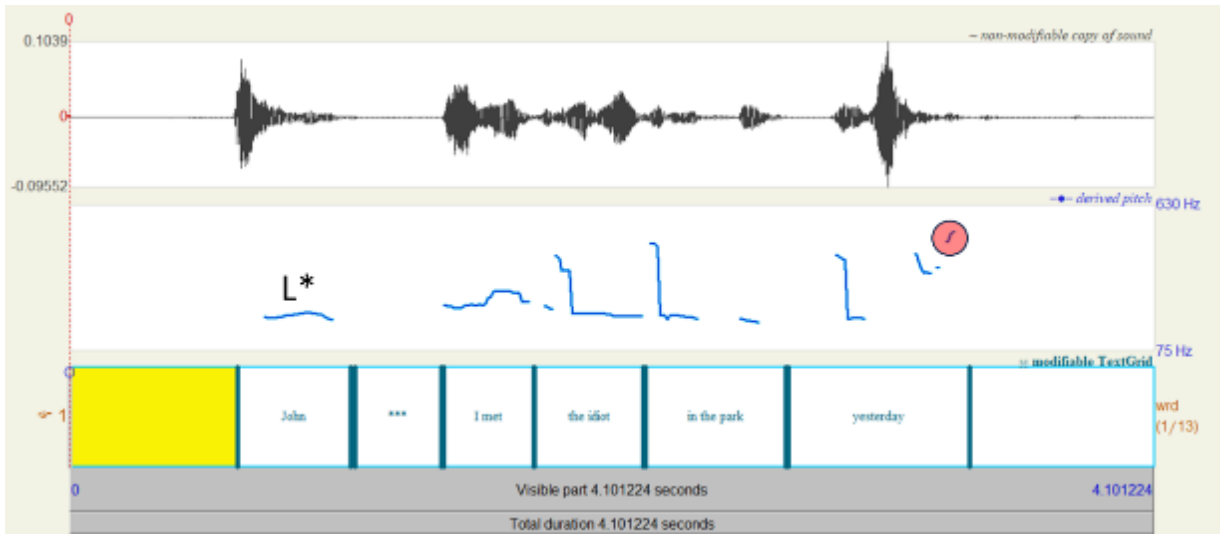
Figure 48, Participant 2

Intonation in Control Sentences
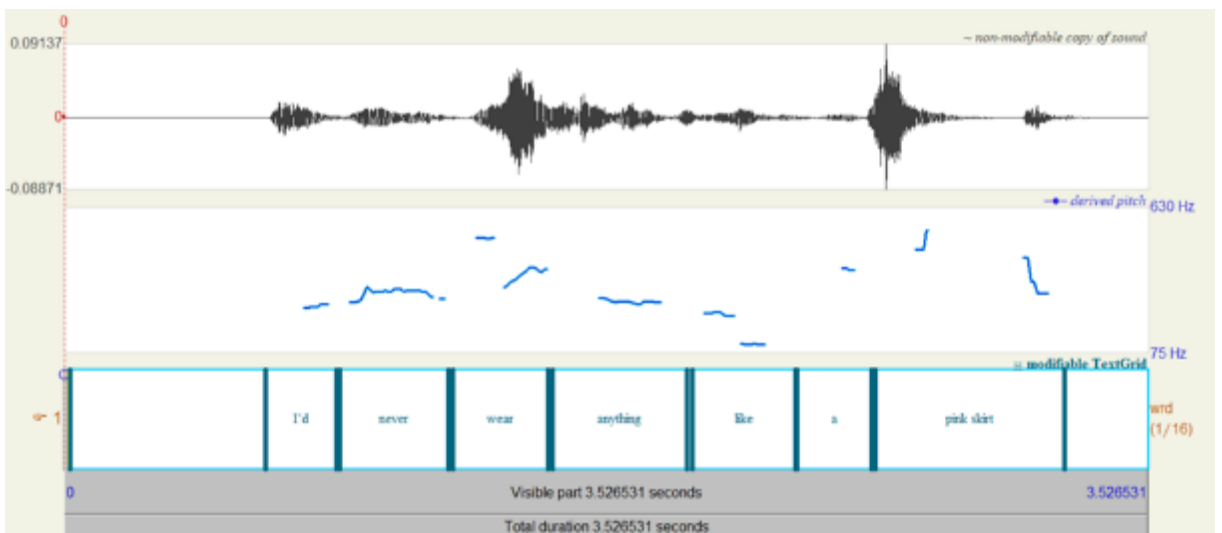
Figure 49, Participant 1
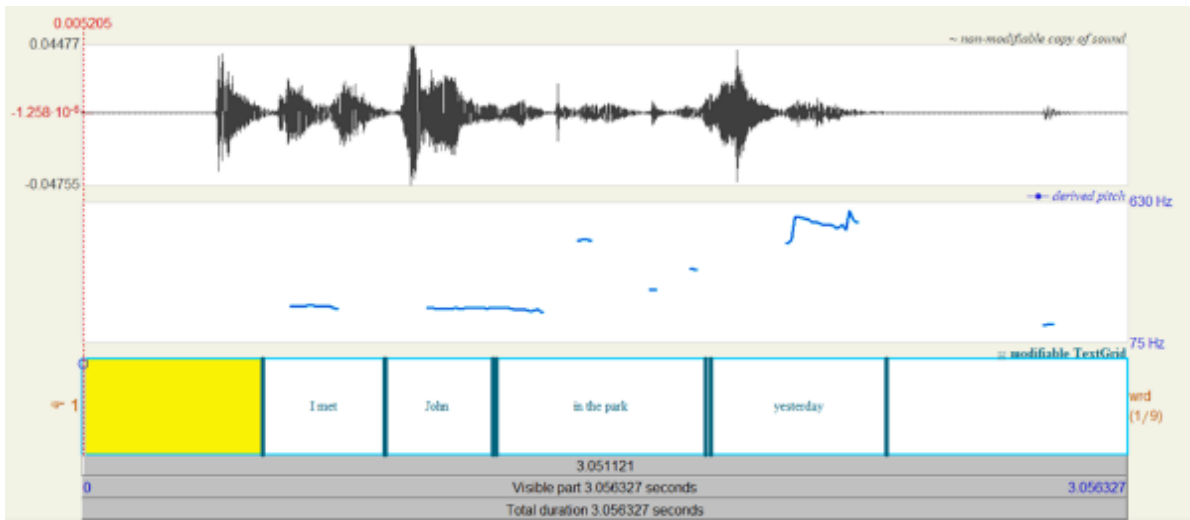
Figure 50, Participant 1
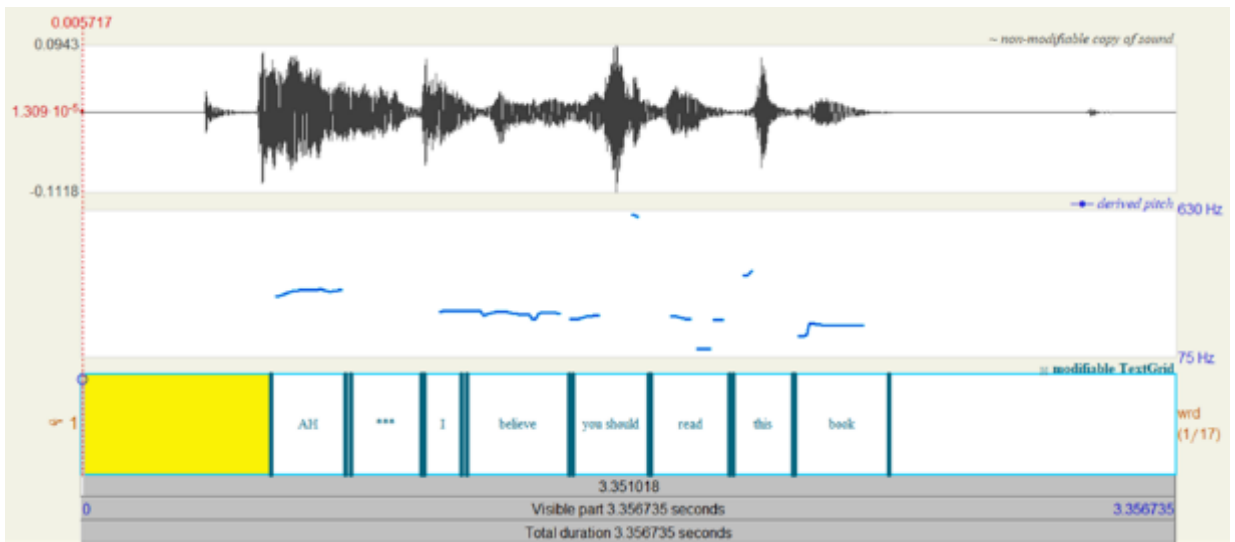
Figure 51, Participant 1
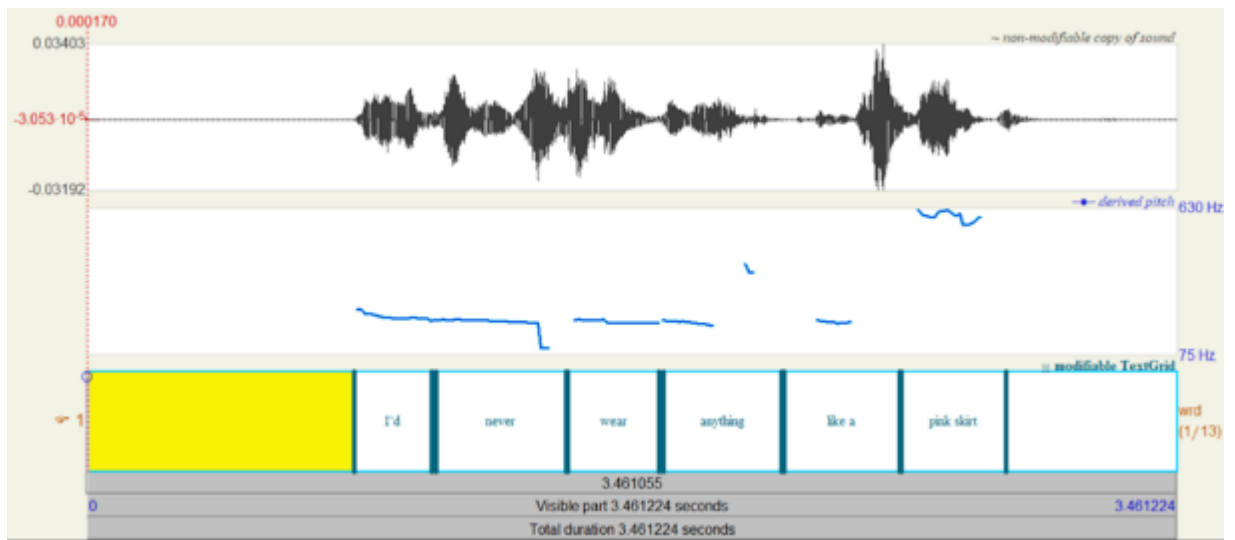
Figure 52, Participant 2
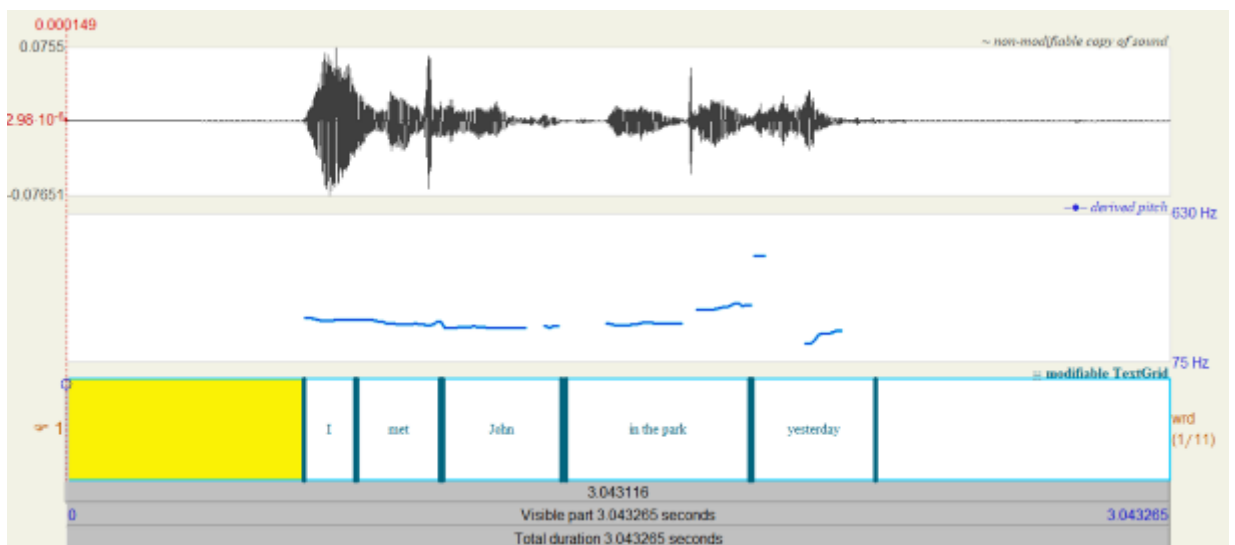
Figure 53, Participant 2
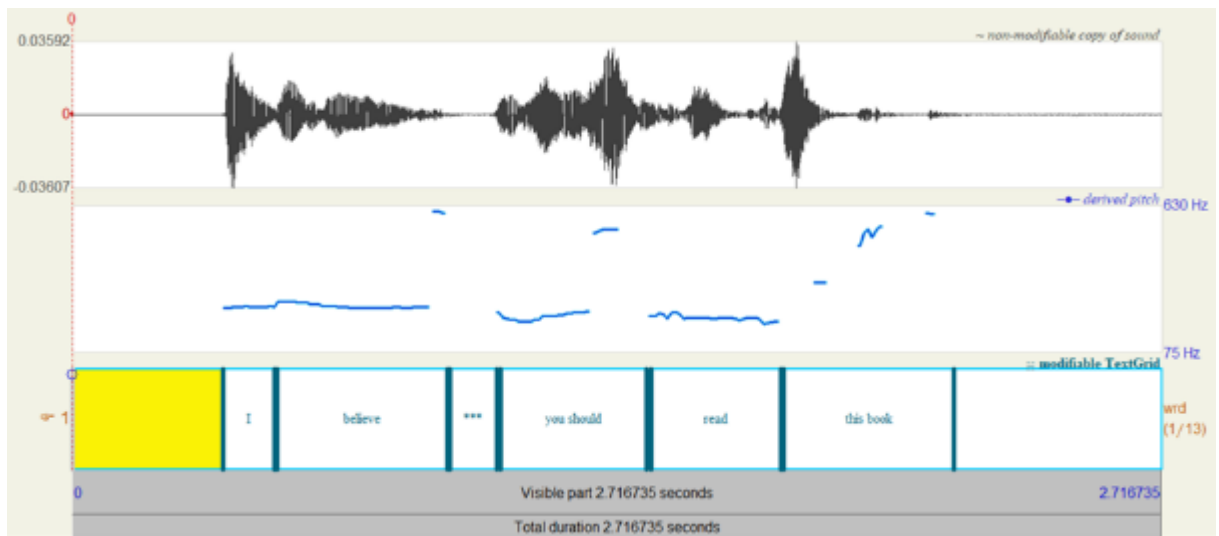
Figure 54, Participant 2

Figure 55, Participant 3

Figure 56, Participant 3

Figure 57, Participant 3

Figure 58, Participant 3

Figure 59, Participant 4

Figure 60, Participant 4

Figure 61, Participant 4

Figure 62, Participant 5
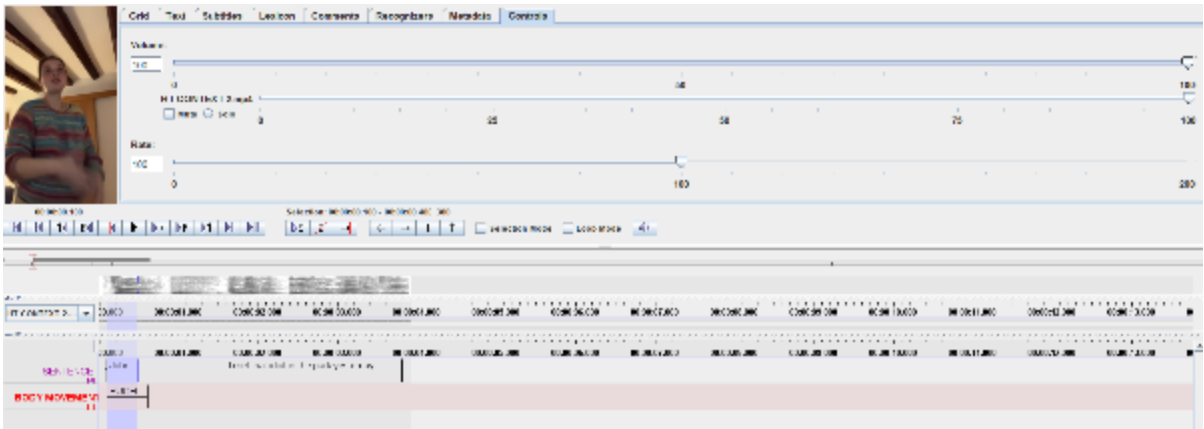

Figure 63, Participant 5
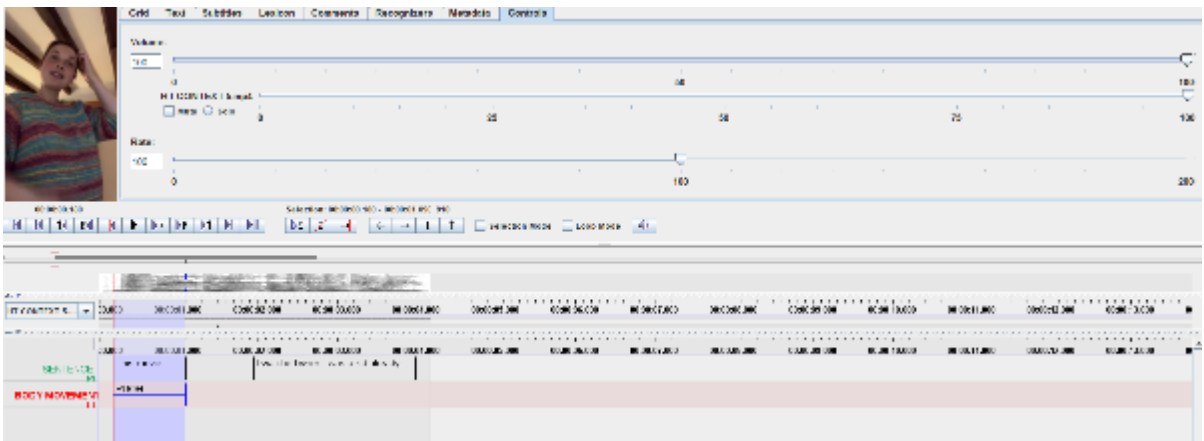
ELAN analyses

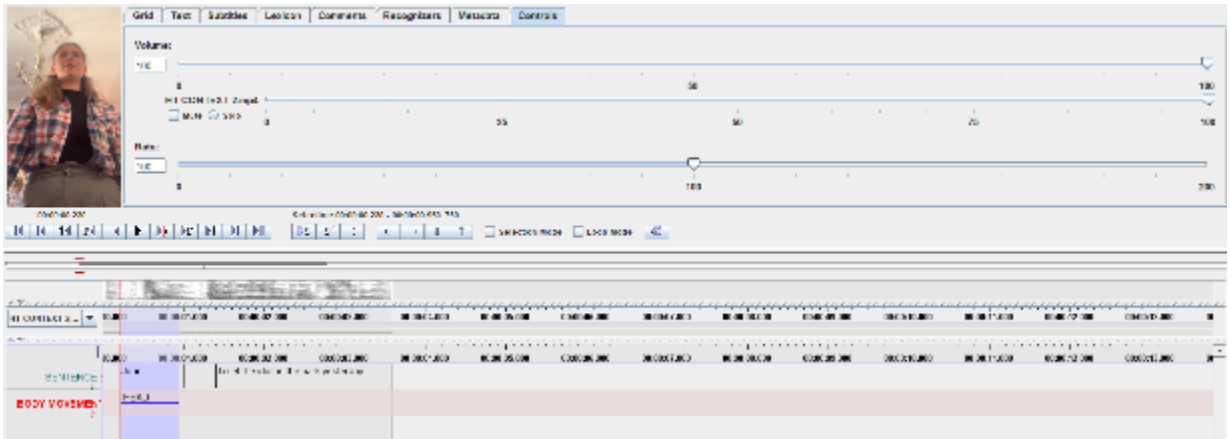*Figure 64, Participant 1*
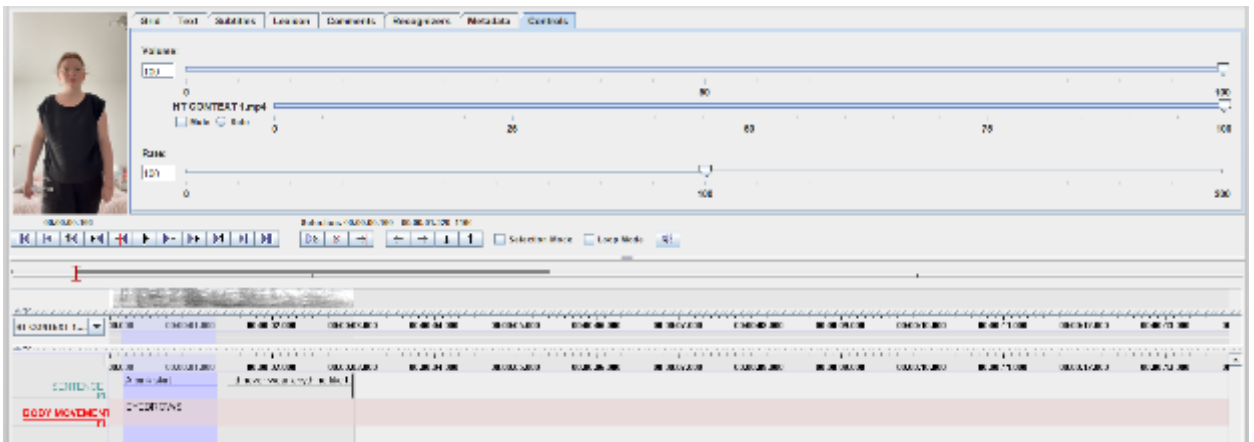

Figure 65, Participant 1

Figure 66, Participant 2
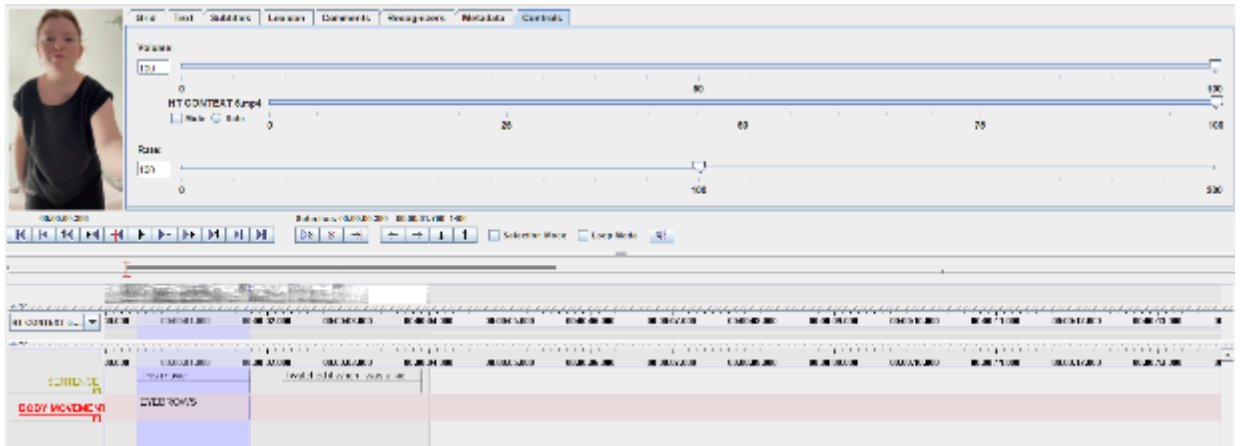

Figure 67, Participant 3
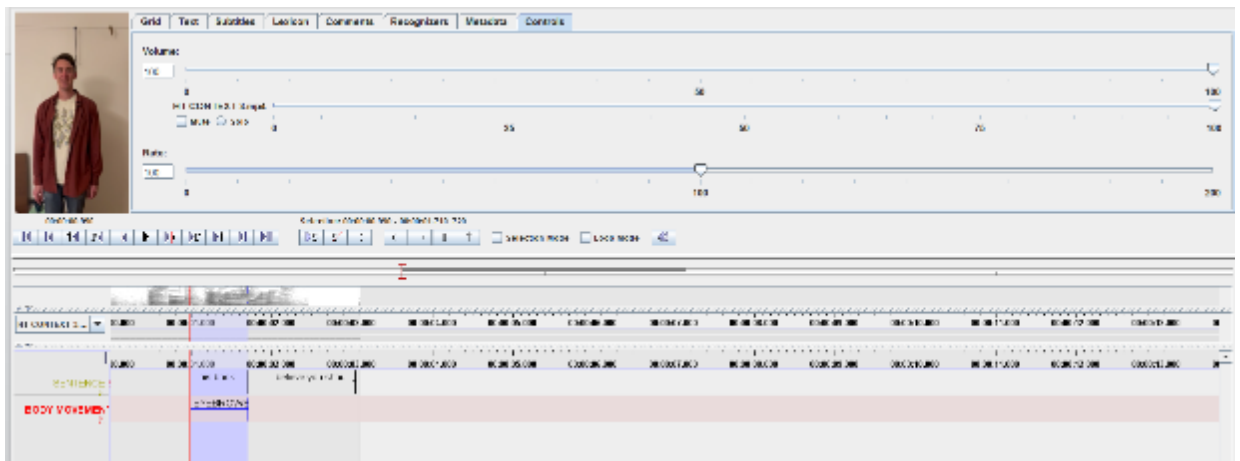
Figure 68, Participant 3
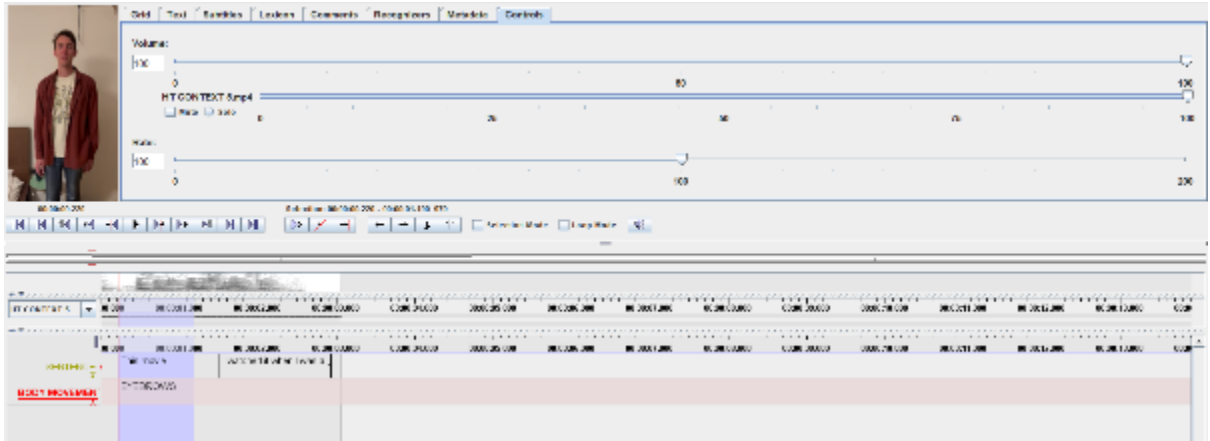

Figure 69, Participant 5

Figure 70, Participant 5

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