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What happens to gestures when Italians do not speak Italian?

A study of gestures on native speakers of Italian

Master Thesis

Language and Communication Coaching

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Abstract

Speech is often accompanied by gesticulation. In communication, people often employ not only the verbal channel, but also the gestural one. Gesture and language are strongly interconnected and co-expressive, thus it has been posited that they should be regarded as two aspects of a single process. By employing the method of storytelling, the current study investigated speech-gesture production of Italian native speakers their first and second language, English. It has been suggested that the use of co-speech gesture might be different in a bilingual's L1 and L2. Some have found an increase in gesture frequency in bilinguals' weaker language, while others have reported that gesture frequency is higher in bilinguals' L1. In the present study, gesture frequency was slightly higher in the L2, especially for lower proficiency speakers. Moreover, in the narrations similar iconic gestures were performed by the same speaker when narrating the same portion of the story in the two languages. However, iconic gestures produced by lower proficiency speakers in English displayed higher degrees of iconicity compared to the coupled Italian gesture. Theories and implications are discussed.

Introduction

Natural speech is often accompanied by gesture. People communicate not only through speech but also through manual gestures. Their role in communication has become so important that research on this phenomenon is abundant, also thanks to the pioneering work of McNeill (1985) and Kendon (1997). The researchers argue that gesture is a fundamental component of everyday communication and is significant as speech itself. Speech and gesture are tightly linked, and since they are produced together, they should be regarded as two aspects of a single process. Explanations with regards to the underlying cognitive processes that link speech and gesture differ in the literature. One line of thought sees speech as primary and gesture as auxiliary. Gestures are seen as facilitating lexical retrieval (the *Lexical Retrieval Hypothesis*, Krauss, Chen, & Gottesman, 2000), or as part of the conceptual planning of the message (the *Information Packaging Hypothesis*, Alibali, Kita, & Young, 2000). Another line of thought regards gesture and language as equals, where gesture is itself an integral part of an utterance (the *Growth Point Theory*, McNeill, 1992; the *Interface Hypothesis*, Kita & Özyürek, 2003).

Studies on gesture have investigated the phenomenon from different perspectives, and linguistic and cultural differences (or similarities) in gesture production has been an area of research widely examined. Cross-cultural and cross-linguistic research has focused on some aspects of gesture such as frequency variation, spatio-temporal characteristics of gestures, linkage to the language spoken, types of gesture performed. The seminal work conducted by Efron (1941) found cultural differences in gesture production of Italians and Eastern European Jewish native speakers, but also that cultural and social forces might have an effect on communicative norms and non-verbal behavior, including gesture. Apart from the conventional folklore about gesture frequency and prevalence when Italian people speak, several studies, including Efron's, found the use of gesture by Italians to be prominent. Research conducted by Graham and Argyle (1975), for example, appear to suggest that Italian speakers might rely more heavily on gestures when communicating and comprehending information compared to English speakers. Cross-linguistic variation has also led to substantial research on gestures of bilinguals. As some studies suggest (Marcos, 1979; Gullberg, 1998; Seto, 2000; Nicoladis, Pika, Yin & Marentette, 2007), the use of co-speech gesture might be different in a bilingual's L1 and L2. Results, however, are conflicting and there is still disagreement. Some have found an increase in gesture frequency in bilinguals' weaker language, suggesting that language proficiency

might be involved in gesture production. Others have reported that gesture frequency is higher in bilinguals' L1, hinting that frequency might indeed be associated with specific languages.

The present research will examine Italian native speakers performing a narrative task in their first and second language, English. Based on the findings that gesture frequency of Italians is prominent in communication, coupled with the idea that bilingual speakers' use of gesture might be different in their L1 and L2, it would be significant to understand gesture production frequency across the Italian and the English language while spoken by the same speaker. Gestures do not have standard forms and different speakers may convey the same meanings in idiosyncratic ways (Goldin-Meadow & McNeill, 2012). Thus, examining the same speakers speaking multiple languages allows to account for idiosyncratic variation during the repetition task. This approach may provide further insights into the gesture-language relationship and add to our understanding of how social and cultural forces might affect gesticulations. Since evidence from previous research shows that proficiency might affect gesture production, participants' level of proficiency will be taken into account. To investigate gesture frequency of Italian native speakers in their L1 and L2, a quantitative approach will be employed.

The second part of the research will focus on iconic gestures, employing a qualitative approach. Research on iconic gesture is abundant and several theories have been developed on their function. McNeill (1985), for example, proposes that speech and iconic gestures "cooperate to present a single cognitive representation" (McNeill, 1985, p. 353). Butterworth and Hadar (1989) posit that gestures have a functional role in word retrieval. Extensive research has been conducted testing both theories, however, the vast majority of research has focused on L1 gesture production. Cross-linguistic research has mainly been conducted on iconic gesture encoding meaning components of motion (e.g. Özyürek, 2002), while, research on L2 learners has mainly focused on frequency variation. This fails to provide an understanding about other potential cross-linguistic differences, which may not be related to frequency or motion encoding. Qualitatively looking at iconic gestures in bilinguals will add to our understanding of such gestures and their function. If, as posited by McNeill and Kendon, speech and gestures are two integrated systems, then gesture becomes important too in the study of languages and may be able to give us insights on L2 speakers and language development. Again, the proficiency level of speakers will be taken into account, as it might be that proficiency influences gesture production.

The following research questions will be investigated:

RQ1: Is there a difference in gesture production frequency between English and Italian narrations and does proficiency play a role in frequency distribution across languages?

RQ2: Is there a difference in iconic gesture production across English and Italian narrations and is this difference contingent on proficiency level?

RQ3: If a difference is found between iconic gestures used in Italian and English, where does this difference lay?

In the attempt to motivate naturalistic speech-gesture production, a narrative task will be designed, since gestures are known to be abundant in storytelling (Gullberg, de Bot & Volterra, 2008). Italian native speakers will watch an animated cartoon of Tweety and Sylvester and will narrate its story to a listener, who will pretend to be unaware of the plot of the cartoon. The experiment will take place in separate days, whereby one time the language of narration will be English and the other Italian. For the quantitative analysis, gesture will be counted, and the length of the narrations will be taken into account. The ratio of gesture per word will allow to make comparison between speakers' L1 and L2. To get insights on the potential role of proficiency, participants will be then subdivided into higher and lower proficiency and gestures produced in English by the two groups will be compared, to see if proficiency has a bearing on frequency. For the qualitative analysis, the concept of iconicity will be employed as a criterion to study each gesture, by considering the parameters that are iconic in a gesture and that resemble aspects of the referent, paying specific attention to temporal and rhythmic components of speech-gesture production, and to the phases of gestures that co-occur with speech.

Literature review

In recent years, much attention has been placed on the role of gesture in interaction. McNeill (1985) and Kendon (1997) argue that gesture is a fundamental component of everyday communication and is as significant as speech itself. Speech and gesture are tightly linked, to the point that some believe they should be regarded as two aspects of a single process (Kendon, 1997; McNeill, 1985). The pivotal point behind all theories on gesture is the semantic-pragmatic and temporal coordination between speech and gesture. The two modes convey closely related meanings, but they do so in their own ways. Gestures are co-expressive, they contribute to the overall propositional content of the utterance, but they are not semantically redundant. Imagine someone saying “I found a ball” and accompanying speech with a gesture depicting a round shape. Speech and gesture refer to the same semantic content, however, the gesture does not merely reproduce what is already conveyed through speech. The size of the ball illustrated by the hands may help discern, for example, a basketball from a tennis ball. Moreover, speech and gesture are synchronized, in the sense that gestures happen in rhythmic integration with the flow of speech production (McNeill, 2007; de Ruiter, 2007; Kendon, 2004).

The word gesture, however, is imprecise and comprises different phenomena. The interest here is in spontaneous gesticulation (from now on ‘gesture’) used in co-occurrence with speech, thus driven by current meaning and not constrained by conventions. These gestures are incomplete without speech accompaniment. Other types of gesture, such as emblems, pantomime, sign language, still part of communication, relate to speech in different ways (McNeill, 2002; McNeill et al., 2008). Therefore, such gestures will not be discussed in detail in the present research. Emblems are culturally specified, and their interpretation is consistent within a culture, but may differ between cultures (Cassel, McNeill & McCullough, 1999). Pantomime is gesture without speech (McNeill et al., 2008).

In the attempt to classify and categorize gestures, many systems and taxonomies have been created in the past years that vary in the categories gesture may fall into. The one adopted in this thesis is the description proposed by McNeill (2007). He defines four types of gestures and later illustrates how it is better to refer to them as dimensions. The reason for that is because dimensions can be multiple, whereas categories have to exist separately. Gesture is global and synthetic. Global refers to the fact that its meaning is determined by the meaning of the whole. Synthetic means that distinct meanings of a single gesture are concentrated into one symbolic form (McNeill et al., 2008). Therefore, since a gesture can entail multiple meanings, it is not

merely iconic, or metaphoric, or deictic. It can be all of the above at the same time. Using dimensions obviates the need for a gesture to fall under a single heading, rather, it can belong to two or more dimensions, without the need to define a hierarchy between them. A taxonomic classification of gesture would undermine the fluid and variable nature of the dimensions embedded in gesture. The distinction proposed by McNeill is the following:

1. iconic or iconicity: those gestures that represent concrete entities or actions. Form and manner of gestures present picturable aspects of the semantic content; for example, if someone raises the hand towards the mouth to imitate the act of eating;
2. metaphoric or metaphoricity: those gestures that represent images of the abstract, in which an abstract meaning is presented as form or space; an example would be a circling movement of the hand to indicate “time passing”;
3. deictic or deixis: those gestures used to point. Gesture can embody concrete deixis (locating entities and actions in space) and abstract deixis (space is used to present non-spatial meaning);
4. beat or temporal highlighting: movements of the hands that seem to ‘beat’ time along with the rhythm of speech. Such gestures may be used by the speaker to signal the temporal locus of something s/he feels is important in speech.

It is abundantly clear that gestures are naturally attended to during the communicative process (Cassel et al., 1999) and that they carry semantic information which is relevant and incorporated by interlocutors during interaction (Beattie & Shovelton, 1999a, b; Cassel et al., 1999). There is general agreement that gesture is temporally integrated with speech production (Kendon, 2004; McNeill, 2007), can assist in language production (Kita, 2000) and is semantically and pragmatically inseparable from speech output in face to face interaction (McNeill, 1985; Kendon, 2004). While ample evidence supports the above propositions, multiple questions remain regarding the cognitive integration and precise relationship between language and gesture. One significant domain of research has sought to elucidate the extent to which gestures are associated with specific languages (Efron, 1941; Graham & Argyle, 1975; Kita & Özyürek, 2003; Pika, Nicoladis & Marentette, 2006). Given the relationship of gesture and language during speech production, much of the work in this domain hopes to tease apart the precise relationship of language and speech cognitively. Central here is the extent to which gestures are or are not tied to or related to the specific language being spoken at any given time.

Kita and Özyürek’s (2003) gesture production model and their multilingual research on gesture encoding during speech production suggests that the types of gestures produced during

speech have a close relationship to the specific language being spoken insofar as particular semantic features from the affordances of the language affect the encoding of the gestures themselves. Their Interface Hypothesis was based on findings of a study where they examined the cognitive process of gesture production, and how the information coordination between co-speech gesture and speech is achieved. Three different theories were compared: The Free Imagery Hypothesis (de Ruiter, 2000; Krauss, Chen, & Chawla, 1996); the Lexical Semantic Hypothesis (Butterworth & Hadar, 1989), and the Interface Hypothesis. According to the first, gestures are generated pre-linguistically, from imagery in the working memory. Therefore, they are not influenced by the representational potential of the language. The second hypothesis maintains that gestures are generated from the semantics of the lexicon of the concurrent speech. Thus, information that is not verbalized will not be encoded in gestures. The third hypothesis argues that gestures originate from an interface representation between speaking and spatial thinking. Gestures both encode non-linguistic properties and structure the information in a way to make it relatively compatible with linguistic encoding possibilities.

The authors analyzed gestures produced in narratives by native speakers of English, Turkish, and Japanese. The participants watched an animated cartoon and were asked to subsequently narrate the story to a listener who did not know the plot. The foci of the research were two: the effect of limited linguistic resources on gestural representation and the effect of different clausal packaging of spatial information on gestural representation. First, it was found that Turkish and Japanese represented the event in question without the feature difficult to verbalize in their language, and this was reflected in the gestural representation. Second, since the information to be expressed is linguistically packaged more concisely in English than in the other two languages, as opposed to English, Japanese and Turkish spread the information into more processing units for speech production (approximately a clause). As a result, separate gestures were used to express the information. Moreover, in both instances, information that was not expressed linguistically was encoded in gestures. The results support the Interface Hypothesis which predicts that gestures are simultaneously shaped by the linguistic packaging of the relevant information and by the spatio-motoric features of the referent that are not verbalized.

While Kita and Özyürek's findings suggest that the language being spoken demonstrably influences gestural encoding, the nature of the stimuli, which were only two motion events, makes it difficult to generalize about the precise influences a language may have on gesture production in instances of natural discourse. The method also restricts our

understanding of cross-linguistic influences to a single gesture type - namely an iconic gesture encoding manner and path. Additionally, their focus on semantic encoding limits the ability to argue much of substance about the nature of the relationship between specific languages and gesture. While semantic feature distribution is clear, gestures do not only serve semantics. Gestures have deictic and pragmatic functions as well, which vary cross-culturally, and gestures are also produced at different rates across cultures. The study provides little insight into the potential of frequency variation. Given the independent sample design, which was necessary for their particular task design, the findings fail to account for idiosyncratic variation across cultural groups during the repetition task. This last shortcoming is especially problematic. All speakers of a particular language do not gesture in a specific way. As evidence in the results section of this thesis, it appears as though there may even be a gestural idiolect to some extent. In other words, speakers of multiple languages may indeed use similar gesture repertoires across languages, and this puts the idiosyncrasy of the gesture-specific language relationship into question. However, this gesture-specific language relationship and how gesture may be influenced by socialization and culture is a nuanced subject and contradictory findings suggest different relationships.

Historically, research has actually suggested that there is a large influence of social and cultural forces which may affect gesticulations (Efron, 1941). Thus, cross-cultural variation in gesture has led to substantial research in efforts to understand the gesture-speech relationships. One particular culture which has figured significantly are Italians. Apart from the conventional folklore about gesture frequency and prevalence when Italian people speak, there is historical credence to the significance of gestures in Italy given the repertoire of gestures used by Italians. In the nineteenth century the first collection of Italian gestures was created by the Canon de Jorio (1832). More recently, Munari (2000) wrote a book on Italian gesticulation and non-verbal communication. It is a real dictionary of gestures, written in four languages, in which the author illustrates the history of Italian gestures, many of which were Neapolitans and then became known nationally and some even worldwide. However, it is not just folklore, general interests, or taxonomies which attest to the interest in Italian gestures. Considerable empirical work has investigated gestures in relation to specific cultures.

Efron (1941) was one of the first who showed that there may be gesture variation across cultures. His research investigated the influence of race and environment upon behavior and found that, rather than race, it is the cultural environment in which people live that influences non-verbal behavior. The subjects of the study were both traditional and assimilated Southern

Italian and Eastern European Jewish immigrants in the United States. Efron compared gestures produced by traditional Italians and traditional Eastern European Jewish and found that there were indeed cultural differences in the use of gestures produced by the two groups. Particularly, such differences were visible in spatio-temporal aspects, such as the incidence and frequency of gesture production, and in the linguistic functions of those gestures. Gestures produced by traditional Italians were abundant and the author discovered an extensive vocabulary of gestures that was widely shared. Such representations were found to be consistent and elaborate. However, it was also found that the gestures of the Italians and Jewish assimilated to the American culture differed far less from each other and, interestingly, resembled those of the American group with which they had become associated. What the findings seem to suggest is that despite heritage, cultural and social forces may have a considerable effect on communicative norms, and thus may influence non-verbal behavior. As a consequence, it might be that the use of gesture by bilinguals might be different from that of monolinguals, depending on the cultural environment in which they live and the cultural group they are associated with.

Efron's study was not the only one that reported differences in the amount of gesture used by Italians in comparison to other cultures. When investigating motion events described by speakers of two typologically different languages, Danish and Italian, Wessel-Tolvig and Paggio (2016) found that, when describing a motion event, Italian speakers tended to produce gestures twice as often as Danish speakers. Moreover, high frequency of gestures performed by Italians compared to other cultures was also visible in children. Iverson, Capirci, Volterra and Goldin-Meadow (2008) conducted a study on American and Italian children and discovered differences in the gesture repertoire of the two groups. Italian children produced more representational gestures than the American children. Moreover, most of them were non-redundant and included object, action, and attribute gestures. Despite the small sample size, it is likely that the findings of the study may reflect differences in the nature of the gesture models to which children are exposed and the cultural environment in which they live, as was also predicted by Efron (1941).

Another study on gesticulation and Italians and on the cultural differences of Italian and English gestures was conducted by Graham and Argyle (1975). The authors investigated the role of gestures in completing the meaning of utterances with the aim to discover whether L1 English speakers and L1 Italian speakers differed in their use of gestures. The authors indicate how culture plays a role in gesture performance. Italian is defined a high gesture culture in terms of frequency, whereas the use of gesture is less frequent in English, termed a low gesture

culture. However, it is not clear whether Italians communicate additional information by doing so. With this in mind, Graham and Argyle hypothesized that the Italians would benefit more than the English from the use of gestures, which would translate into an increase in the amount of information conveyed when gestures are allowed for Italians.

British English and Italian students were asked to describe pictures containing shapes of high and low verbal codability to speakers of the same language. In one condition speakers were allowed to use gestures to describe the pictures, in the other condition gestures were not allowed. In both conditions, listeners were asked to draw the shape that was being described. These drawings were scored and analyzed for similarity to the original. The results showed that when gestures were allowed performance improved and both Italians and English were more accurate in communicating shapes. What is primarily significant is that for the Italians the percentage of improvement in performance when gestures were allowed was greater than for the English. This provides some evidence that frequency may additionally serve a communicative function, indeed, when gestures were allowed, Italians actually communicated more information than the English. Therefore, it would appear that L1 Italian speakers might rely more heavily on gestures when communicating and comprehending information than do L1 English speakers. The nature of the task, however, which required participants to describe shapes of high and low verbal codability, is not very informative about the behavior of the two cultural groups in instances of natural communication. Therefore, further research would be necessary to establish whether the findings can be generalized to natural discourse in interaction, when it is not material of high/low verbal codability that is being communicated.

As Efron (1941) results seem to suggest, cultural and social factors might influence non-verbal behavior and, therefore, gestures produced by bilinguals might differ from that of monolinguals. Abundant research has investigated bilinguals' use of gestures in their L1 and L2. An area of focus has been the quantitative differences in gesture production of bilinguals between L1 and L2 (Marcos, 1979; Gullberg, 1998; Seto, 2000; Nicoladis et al., 2007). However, the results of this work are conflicting. Such discrepancy among results might be due to differences across methodologies used or might be caused by other factors. Marcos (1979) and Gullberg (1998) have found an increase in gesture production when speakers used the L2 compared to their L1. Marcos (1979) found that English-Spanish and Spanish-English bilinguals performed more gestures when they were speaking their weaker language and Gullberg (1998), when investigating French and Swedish bilinguals, found that both groups produced more gestures when speaking their L2. This seem to suggest that matters of

proficiency are at play when considering gesture frequency across languages. More specifically, that gesture frequency increases during speech production in a weaker language. However, other studies show contrasting results. Seto (2000), for instance, examined Japanese speakers of English and Australian speakers of Japanese. The findings revealed that for both groups the frequency of gestures was higher when participants were speaking in English. In contrast, this seems to suggest that gesture production frequency is not a matter of proficiency and may indeed be linked to a specific language. In essence, whether gesture frequency is associated with specific languages or with proficiency in a language remains somewhat unknown. Furthermore, the theoretical nuances regarding why gesture frequency may be higher in either a language classically recognized as being gesture-rich or one's weaker language remain preliminary and unsubstantiated. Finally, it could be that, in many cases, conflicting findings may simply be attributable to incongruent methodologies employed across studies.

Research on bilinguals' use of gesture has also sought to link differences and similarities in gesture production between a speaker's L1 and L2 to the notion of transfer (Cavicchio & Kita, 2013; Pika et al., 2006). Language transfer, a phenomenon largely examined in studies on language, is the impact that existing languages has on the acquisition and production of a new one (Gullberg, 2014). The notion of gesture transfer, however, remains problematically under clarified. Implicitly, the notion of transfer suggests that frequency, type, and nature of gesticulations are intimately linked with a specific language and can be transfer from one language to another as one switches language. However, if such features are not linked to a particular language, then there is nothing to be transferred. This also implies that at certain proficiency levels, gesture, or at least gestural dispositions, remain unobstructed by second language acquisition. In extension, this results in a particular view of what exactly gesture is – that gesture is associated either with semantic memory, and attempts to lexicalize particular concepts will result in recurrent gestures due to mutual storage, or that gesture is associated with particular lexical affiliates in language production, resulting in lexemes of the same semantic scope being accompanied by gestures previously associated with one's first language. In support of this, some studies have shown how speakers of an L2 do not necessarily gesture like target-language speakers but show traces of their L1 in their gesture production (Gullberg, 2014). Thus, as mentioned above, there is the possibility that gesture, like language, can be transferred cross-linguistically. However, the evidence for gestural transfer in the literature is mixed. Research by Cavicchio and Kita (2013) investigated the relationship between gesture and language in English/Italian bilinguals. The focus of the research was gesture rate and

gesture space. Both aspects are known to vary cross-culturally, and before their study, gesture size in bilinguals had never been investigated. Gesture size was operationalized as how gestures are performed in space, dividing the gesture space in two sectors, center and periphery. 30 participants, of which 10 English monolinguals, 10 Italian monolinguals, and 10 English-Italian bilinguals, took part in the experiment. They watched a 10-scene cartoon and retold it to a listener. Monolinguals told the story twice in their L1, whereas bilinguals told the story once in Italian and once in English.

As previous research found, gesture rate was higher for Italians than for the English. Moreover, gestures produced by Italians were more salient compared to gestures produced by the English. However, when comparing gestures produced by English-Italian bilinguals, no evidence of transfer was found with regards to rate and salience. When bilinguals switched language, their gesture parameters switched accordingly. Bilinguals gestures, however, were overall more salient than those of monolinguals. This could be due to the fact that bilinguals could be weaker in one of the languages and make their gestures more salient in order to facilitate communication. To account for lack of transfer, the authors resorted to La Heij's (2005) concept selection hypothesis, whereby the selection of some parameters, such as language and gesture, occurs at a pre-linguistic level. Thus, the features specifying language and gesture parameters might be selected at a high-level processing stage, in which verbal and nonverbal aspects of communication are planned together (Cavicchio & Kita, 2013). What is problematic with the study, however, is that the authors considered the English-Italian bilingual group as a whole, despite mentioning that some were English and some Italians. This conflation of the linguistic demographics of the sample creates considerable issues in validity. In the research it was not specified which language bilinguals acquired first, whether they acquired both languages at the same time, or in which country the bilingual participants grew up and lived. As we know from Efron's research, the communicative culture may have a considerable effect on communicative norms of people. Failing to make such distinctions between the heterogeneous group of bilingual participants may lead to potential differences within the group not being detected. Moreover, no explanation was given as to why monolinguals performed the task twice, which of the two storytellings was chosen for the analysis, and what were the criteria for choosing one narration instead of the other. This might have had consequences for the results of the analysis conducted.

Another study on gesture transfer, which presented opposite results, was conducted by Pika et al. (2006), who investigated gesture frequency cross-linguistically and the possibility of

gestural transfer occurring from a high frequency gesture language to a low frequency gesture language. Since evidence of linguistic transfer has been found in the literature, adopting McNeill's (1985) notion that speech and gesture form a single integrated system, then it is possible that gestural transfer might occur as well. The authors compared French–English bilinguals, English–Spanish bilinguals, and English monolinguals. They participated in a storytelling task whereby, after watching a cartoon, speakers had to narrate the story to a listener. Bilinguals told the story twice, once in their L1 and once in their L2, whereas monolinguals told the story once. The analysis focused on gesture rate and frequency of production of gesture types.

The results demonstrated that gestural transfer occurred from a high- to a low-frequency gesture language, showing that the overall gesture rate of French–English bilinguals and English–Spanish bilinguals was higher than the English monolinguals. This was particularly prominent for iconic gestures. Moreover, the study showed that gestural transfer can also occur from an L2 to the L1. Bilinguals whose L1 was English gestured more frequently in English than English monolinguals. Therefore, the researchers maintain, for transfer to occur it does not matter whether the high frequency gesture language is the L1 or the L2. Higher gesture rate in both bilingual groups compared to the English monolinguals was the factor that allowed to determine the occurrence of transfer from a high to a low frequency gesture language. The authors maintained that “The only way that second language learners could know that a language was a high frequency gesture language was through exposure to multiple native speakers of that language” (Pika et al., 2006, p. 324). As a matter of fact, all bilingual participants who took part in the experiment spent at least one year in a country where their L2 was spoken. However, to state with certainty that exposure to the L2 culture contributed to gesture transfer, this factor should have been controlled for. Testing two more groups, English-Spanish and French-English bilinguals who never lived in a country where their L2 was spoken, is necessary to confirm their claim. What also raises some questions is that, when testing French-English bilinguals' gesture frequency in the two languages, it was found that participants produced significantly more gestures in English than in French. If gesture transfer did occur from a high frequency gesture language, French, to a low frequency gesture language, English, it actually occurred to a greater extent, even more gestures were produced in the low than in the high frequency gesture language. Transfer, therefore, might not be the only way to account for the results. Including a French and a Spanish monolingual group might have provided stronger evidence for the authors' assertions. Lastly, the study restricts our

understanding to transfer with regards to frequency and types of gestures. It remains to be seen whether other features of gestures can be transferred, and whether transfer can occur from a low to a high frequency gesture language, in the sense that low frequency of gesture is displayed even when a speaker is using a high frequency gesture language, due to influence of a low frequency gesture language.

In summation, studies suggest that Italians frequently accompany their speech with gesture, and gesture more compared to some other cultures. Cultural differences in gesture production is a concept widely agreed upon. Efron's (1941) seminal work provided some evidence that cultural and social forces may have a considerable effect on communicative norms, and thus may influence non-verbal behavior. In particular, the results of his research showed that Italian native speakers gestured more compared to Eastern European Jewish and had a widely shared vocabulary of gesture. Graham and Argyle's (1975) results showed that Italians produced more gestures than the English, which resulted in an increased improvement in performance for Italians. This provides some evidence that frequency may additionally serve a communicative function and suggest that Italians might rely more heavily on gestures when communicating and comprehending information than do the English. In Wessel-Tolvig and Paggio's (2016) study, Italian native speakers produced gestures twice as often as Danish speakers when describing motion events. Lastly, Cavicchio and Kita (2013) reported that gesture rate was higher for Italians than for the English, and gestures produced by Italians were more salient. Based on these findings, coupled with the idea that bilingual speakers' use of gesture might be different in their L1 and L2, it would be significant to understand gesture production frequency across the Italian and the English language while spoken by the same speaker. Gestures do not have standard forms and different speakers may convey the same meanings in idiosyncratic ways (Goldin-Meadow & McNeill, 2012). It is not that all speakers of a particular language gesture in a specific way and, in this sense, gesture is not inherent to a specific language, it might only be inherent to a speaker of that language. For this reason, to make inferences about the gesture-specific languages relationship, it would be necessary to take idiosyncratic variation across cultural groups into account and thus, investigate the same speakers speaking multiple languages, rather than different speakers speaking different languages.

Some studies have reported that bilinguals gesture more frequently in their L1 (Cavicchio & Kita, 2013; Gregersen, Olivares-Cuhat & Storm, 2009), which seems to suggest that gesture rate is associated with specific languages, while others that bilinguals produce more

gestures in their L2 (Marcos, 1979; Gullberg, 1998), which, on the contrary, seems to suggest that proficiency has an influence on gesture rate. However, whether gesture frequency is associated with specific languages or with proficiency in a language it is still unknown. Italian is said to be a high frequency gesture language and culture. English, on the contrary, is said a low frequency gesture language. What would be interesting to study is whether Italian bilinguals display a high rate of gesture even when they are not speaking their native language but their L2 (in the case of the present study English). It might be that Italians will display the same gesture rate across languages, which may allow to determine the occurrence of transfer from a high to a low frequency gesture language, but also that gesture rate is similar in the two languages since speakers of multiple languages may use similar gesture repertoires across languages, or it could be that proficiency might affect gesture production, which would result in a higher gesture rate in participants' L2. Lastly, if gesture rate is found to be higher in Italian, it might be that participants switch parameters and thus, gesticulate less as they speak a low frequency gesture language, or it might be that frequency is inherent to the Italian language and that when Italian native speakers switch language their gesture attitude is lost. Therefore, the first point of the research will focus on gesture production frequency in Italian and English while spoken by Italian native speakers. Since evidence show that proficiency might affect gesture production, participants' level of proficiency will be measured systematically. To motivate naturalistic speech-gesture production a storytelling task will be employed. Participants will watch a short cartoon and narrate the story to a listener in English and in Italian. The aim is to discover whether Italian-English bilinguals switch gesture parameters when they speak their L2, and thus gesticulate more or less, or whether gesture production frequency is kept constant regardless of whether Italians are speaking their L1 or L2. The current study proposes the following research question:

RQ1: Is there a difference in gesture production frequency between English and Italian narrations and does proficiency play a role in frequency distribution across languages?

Research has shown that gestures produced by bilinguals in their L1 and L2 not only differ in terms of frequency of use but might also differ in terms of types (or dimensions) of gestures used. Nicoladis et al. (2007), for example, found that more iconic gestures were used in participants' L2. Moreover, there is evidence suggesting that the production of certain types of gestures might be influenced by proficiency in a language. Research by Gregersen et al. (2009) found that advanced learners of Spanish tended to produce more iconic gestures compared to intermediate and beginning learners. So, Kita and Goldin-Meadow (2013) found

that proficient speakers tended to produce iconic gestures to further specify referents already specified in speech, and concrete deictic gestures for referents that were not specified in speech, whereas less proficient speakers tended to produce both iconic and concrete deictic gestures regardless of referents being lexically specified in speech. Extensive research has been conducted on the role and function of iconic gestures. However, the vast majority of research has focused on iconic gestures produced by native speakers. Studies comparing iconic gestures in different languages has mainly been conducted on iconic gesture encoding meaning components of motion, like path and manner produced by speakers of typologically different languages (e.g. Özyürek, 2002). Moreover, research on second language learners has mainly focused on frequency variation across the L1 and the L2. This fails to provide an understanding about other potential cross-linguistic differences, which may not be related to frequency or motion encoding processes. Qualitatively looking at iconic gestures in a speaker's L1 and L2 might help us to add to our understanding of such gestures and their function. Moreover, if we consider speech and gestures to be two integrated systems, as posited by McNeill (1985) and Kendon (1997), then gestures become important too in the study of languages and may be able to give us insights on L2 speakers and language development. As Gullberg et al. (2008) argue, analyzing gestures and speech together may provide a fuller picture of learners' strategies of problem-solving. In addition, taking proficiency into account might help identify and discern potential communicative strategies employed by L2 speakers that have different proficiency levels. The research will employ a qualitative approach to investigate the following questions:

RQ2: Is there a difference in iconic gesture production across English and Italian narrations and is this difference contingent on proficiency level?

RQ3: If a difference is found between iconic gestures used in Italian and English, where does this difference lay?

Two major contrasting theories have been developed on the function of iconic gestures, one proposed by McNeill (1985) and the other by Butterworth and Hadar (1989). According to the first, speech and iconic gestures “cooperate to present a single cognitive representation” (McNeill, 1985, p. 353). McNeill presents a number of examples of speech-gesture co-occurrence, the following displaying how this speech-gesture cooperation occurs:

‘she chases him out again’

[hand, gripping an
object, swings
from left to right]

Here meaning is conveyed through both channels. However, the iconic gesture in question “conveys the idea of the instrument of the act, [an umbrella,] whereas the act itself is described in the concurrent sentence. [. . .] To get the full cognitive representation that the speaker had in mind, both the sentence and the gesture must be taken in account” (McNeill, 1985, p. 353). McNeill’s central argument, thus, is that iconic gestures act in cooperation with speech to convey ideas. Butterworth and Hadar (1989), however, have a quite different view on iconic gestures. They suggest that such gestures have a functional role in word retrieval. Their theory follows Butterworth and Beattie’s (1978) work whereby it was found that iconic gestures “tended to have their onsets in pauses in relatively fluent sections of speech, and hence preceded the onset of related speech material and offer an account in terms of the relative difficulty in accessing the intended lexical items” (Butterworth & Hadar, 1989, p. 170). Failure to retrieve the phonological form of a lexical item would delay speech output while unaffected iconic gesture onset, the latter revealing this lexical access difficulty. The following example comes from Beattie and Aboudan’s (1994) study where respondents narrated a cartoon story:

‘(pause) starting it at the front with the (pause) winder thing’
[hand moves in a winding movement]

In this example, the iconic gesture starts and ends in between two pauses, before the lexical affiliate is even uttered. The speaker, unable to access the lexical item “starter-handle” employed “the winder thing”. This example seems to fit better into Butterworth and Hadar’s theory whereby iconic gesture might have a functional role in word retrieval.

Extensive research has been conducted testing both theories. Beattie and Goughlan (1999) tested Butterworth and Hadar’s (1989) theory experimentally inducing the tip-of-the-tongue (TOT) state in participants. This is a particular type of lexical accessing problem that occurs when “We are sure that the information is in memory but are temporarily unable to access it” (Brown, 1991, p. 204). Participants in the experiment were presented with a list of 25 definitions of words from which they were asked to recall the target words. Half of the participants were instructed to fold their arms in order to prevent gesturing. From Butterworth and Hadar’s theory it was predicted that more correct words should be recalled by participants who were free to gesture, and in a TOT state, they should resolve more TOTs than those who had their arms folded. Moreover, they predicted that the TOTs should be associated with the production of iconic gestures, and that the latter should be involved more in resolved TOT states than unresolved ones.

Results, however, did not completely support Butterworth and Hadar's theory that iconic gestures have a functional role in word retrieval. Contrary to prediction, more words were recalled by participants who had their arms folded, although when TOTs occurred, those who were free to gesture resolved more TOT states. Despite gestures being present in TOT states, iconic gestures were the least employed in word retrieval. A further analysis examined whether gestures were associated with TOTs being resolved. Surprisingly, results revealed that significantly more TOT states were resolved when gestures were absent than when they were present. Overall, despite showing that gestures in general are associated with lexical search, the results of Beattie and Goughlan's (1999) study failed to find real evidence for Butterworth and Hadar's theory.

Beattie and Shovelton (1999a, b) and Holler and Beattie (2003) have conducted a series of studies to test McNeill's theory that iconic gestures accompanying speech convey critical information in interpersonal communication. The early studies (Beattie & Shovelton, 1999a, b) examined information conveyed by gestures that were presented to participants on video. A later study, however, also examined the phenomenon in conversational interaction (Holler & Beattie, 2003). In Beattie and Shovelton (1999b) 14 participants were asked to narrate cartoon stories that were videotaped. Iconic gestures were selected from the narrations. 10 other participants responded to a structured interview about information contained in the video narrations in three conditions: video, audio-only, and vision-only. The questionnaire asked questions about semantic categories (identity, number, description of action, shape, size, movement, direction, speed, relative position) to ascertain what information the respondents picked up from the clips. The interviews were then analyzed and compared to the original cartoons.

From the results, it appears that iconic gestures convey additional meaning. With the video presentation, respondents were significantly better at answering questions about the semantic properties of the original cartoons than in the audio-only presentation. Specifically, this was particularly relevant for two semantic categories: size and relative position. These seem to be the semantic properties more accurately encoded in iconic gesture across the sample. Moreover, it was found that "iconic gestures in the absence of speech also communicate significant amounts of information about the world, in the sense of transmitting significant amounts of information about it" (Beattie & Shovelton, 1999b, p. 453). In fact, the overall accuracy in the vision-only condition was 20.4%. Thus, the study showed not only that iconic gestures communicated additional information, and that they did so even in absence of the

accompanying speech, but also what semantic categories were conveyed through gestures with regards to narration of cartoon stories.

One of the shortcomings of Bettie and Shovelton's (1999b) study is that information conveyed by speech and gestures was presented to participants on video rather than in a face-to-face context. This limits the generalizability of their results, since the behavior of individuals may differ in the two situations. Thus, a different context might produce different results. Holler and Beattie (2003) tried to overcome this shortcoming by testing McNeill's theory of iconic gestures in conversational interaction. The authors investigated the communicational role of iconic gestures and how the representation of semantic information is partitioned between iconic gesture and speech. To capture the range of semantic information conveyed by the two channels, they empirically derived 20 semantic categories (entity, action, relative position, size, shape, shape of a part, and their subcategories). Participants narrated cartoon stories to one of the experimenters. Narrations were filmed and gestural and verbal material was coded through a mathematical scheme, binary for gesture (semantic feature represented or not by the gesture) and tripartite for speech (explicitly represented semantic information, implicitly represented information, no information).

The analysis of the study was structured in such a way that six different speech-gesture combinations of informational values were possible, and it described directly how often gesture and speech interact in a particular kind of pattern. None of the semantic features showed an identical pattern of representation. The distribution of frequencies across the six possible combinations of informational values of each semantic category was homogenous for some of them and heterogeneous for others. The semantic categories were then classified in groups according to how similar their pattern of representation was. The findings suggest that the pattern of how speech and gesture work together to represent semantic information varies considerably from feature to feature. Some were primarily represented by gesture, others by speech. The authors concluded that "the interaction of the gestural and the linguistic systems is more multifaceted than as described by McNeill and that iconic gesture and speech do not necessarily represent different aspects of the same scene. Rather, they only do so with respect to certain semantic features" (Holler & Beattie, 2003, p. 111). They provided two hypotheses as to why some semantic features are represented differently from others. It could be that the semantic features that are similarly represented by speech and gesture bear some kind of common characteristic. This would suggest that gesture and speech are two systems, each designated to represent particular semantic features, and thus, they "operate together in a rather

static and fixed manner. [...] An alternative hypothesis might be that the gestural and the linguistic systems interact in a much more flexible manner, which is linked to the communicational intent of the speaker” (p. 111). The latter theoretical model would make it not possible to determine which semantic features will be represented by which channel. Gestures may serve different kinds of communicational functions, and the communicational demands of a certain situation may lead to variation in the semantic features represented by iconic gestures. If this latter hypothesis is true, then it would be interesting to study the behavior of a L2 learner while performing the same task in their native language and their second language, in order to understand how certain communicational demands may lead to variation in iconic gestures and add to our understanding of such gestures in relation to second language.

Poggi’s view regarding the semantic features represented by iconic gestures is similar to that of Holler and Beattie. In her paper, she outlines a process through which iconic gestures may be generated. “Creating an iconic gestural noun implies sorting out and miming [...] one or a few aspects of the referent that allow the Addressee to restrict his guess about what we are referring to” (Poggi, 2008, p. 52). The features of a referent will be chosen according to the speaker’s goals and communicative resources: the speaker will represent beliefs most distinctive of the referent, possible and easy to be represented by hands. Poggi posits the idea that iconicity in gestures may vary, in terms of the features of gestures resembling the features of the meaning they represent. “The iconicity of a gesture is not an all-or-none matter: there are different levels of iconicity” (Poggi, 2008, p. 55). A criterion to measure iconicity would be to consider the parameters that are iconic in a gesture and resemble aspects of the meaning: the more iconic parameters there are, the more iconic the gesture is. Despite Poggi was referring to codified gestures, those “steadily represented in the mind as lexical items of a gestural lexicon” (p. 48), the criterion to measure iconicity can also apply to iconic gestures in the sense proposed by McNeill.

The concept of iconicity was also later proposed by Perniss and Vigliocco (2014, p. 2) who regard it as “any resemblance between certain properties of linguistic/communicative form (this includes sign or spoken language phonology, sign or spoken language prosody and co-speech gestures) and certain sensori-motor and/or affective properties of corresponding referents”. Traditionally, in sign languages, signs have been classified as transparent signs, translucent signs, obscure signs, and opaque signs depending on how clear, or iconic, their meaning is. Indeed, the iconic form can differ in the extent or degree to which it resembles its referent, and thus can exhibit varying degrees of abstraction. In spoken languages, the authors

maintain, co-speech gestures “offer similar opportunities for iconic representation of action affordances and visual features of referents, and therefore, like signs, gestures can exhibit varying degrees of perceptual/motoric iconicity” (Perniss & Vigliocco, 2014, p. 3). The concept of iconicity may become useful when qualitatively analyzing iconic gesture. Considering the parameters that are iconic in a gesture and that resemble aspects of the meaning could be a criterion to study each gesture. If, as posited by Poggi, the features of a referent will be chosen according to the speaker’s goals and communicative resources, the results might provide insights about the speaker’s communicative strategies and in particular what strategies are employed in the speaker’s first and second language to pinpoint potential differences.

The above-mentioned literature shows disagreement on the function of iconic gestures. They might play a role in lexical access, or they might add further information to that expressed through speech and aid communication. The study conducted by Beattie and Goughlan (1999) tested experimentally the first theory inducing a TOT state in participants, providing, however, little evidence that iconic gestures have a functional role in word retrieval. A research conducted by Bettie and Shovelton (1999b) found some evidence in support of McNeill’s theory that iconic gestures convey additional meaning to that expressed through speech. Holler and Beattie (2003) further tested McNeill’s theory and found that the way speech and gesture interact is rather flexible and is linked to the communicational intent of the speaker. The research will employ a qualitative approach to look at iconic gesture and second language, and more specifically to investigate iconic gestures produced by the same speaker while speaking their L1 and L2. This might help us to add to our understanding of such gestures and what we know about their function in L1. The focus of the second research question will be about the functions of iconic gestures and whether variation occurs in the realization of such gestures across participants’ L1 and L2, since, as it has been hypothesized, the communicational demands of a certain situation might lead to variation in the semantic features represented by iconic gestures. Because their form and manner present picturable aspects of the semantic content, it is likely that many iconic gestures will be produced in a storytelling task, and similar repertoires of iconic gestures might be produced across English and Italian narrations. This will allow to compare the behavior of bilingual speakers while performing the same task in their L1 and L2, which might provide some insight on the effect that the communicational demands and linguistic abilities across a speaker’s L1 and L2 might have on gesture production. The concept of iconicity will be employed to qualitatively analyze iconic gesture. Moreover, since previous research has shown that proficiency might affect gesture production, the level of participants in

English will be taken into account. Iconic gestures performed when narrating the story in Italian and English will be examined. If such gestures will be found to differ in the two narrations, a third point of the study will seek to examine the nature of such differences, where they may emerge, and to identify any salient features of gestures. If they do differ, it might be that the speaker makes different use of iconic gesture in the two narrations.

Methodology

Design of study

In the attempt to motivate naturalistic speech-gesture production, a semi-controlled study was designed. It presents a within-subject, mixed method design, whereby quantitative and qualitative analyses were conducted. A narrative task was chosen, as it is known that gestures are abundant in storytelling (Gullberg et al., 2008). The procedure is the one reminiscent of McNeill (1992). To elicit speech-gesture production in two different languages, Italian and English, participants were exposed to a stimulus video twice. Subsequently, they were asked to narrate the story to a listener, once in English and the other, about a week later, in Italian. To take part in the experiment, participants needed to have a working knowledge of English. Since knowledge is a broad term which is not easily assessable, for the present study knowledge of English equaled the ability to narrate the story of a cartoon to another English-speaking person. To make sure participants met the requirement, they were selected among students at English-speaking universities.

Materials

The stimulus was a short animated cartoon, Sylvester the Cat, on the adventures of Sylvester and Tweety. The episode was “Home, Tweet Home”, approximately 7 minutes long. The plot of the cartoon is about the endless attempts and failures of the cat, Sylvester, that tries to catch the bird, Tweety. The cartoon was shown to participants on a laptop. Moreover, to have an accurate record of the storytelling, a camera was used to audio-video record the narrations.

Participants

13 native speakers of Italian, 8 male and 5 female, whose age ranged 19-32 ($M=25.8$, $SD=3.87$), participated in the experiment. Since participants had to retell the story both in their L1 and in English, a fundamental prerequisite to take part in the study was knowledge of the English language. To make sure the requirement was met, participants were selected among university students at Radboud University and at the Donders Institute in Nijmegen, in which English is the language of instruction. Participants had different levels of English that ranged from low intermediate to upper intermediate. None of the speakers were simultaneous bilinguals. All participants learnt English in primary school or later.

Procedure

Participants were shown an animated cartoon and were asked to narrate the story to a listener who did not see the cartoon. The experiment was divided in two parts, which took place in two different days, about a week from each other. The first time the participants narrated the story in English, whereas the second in Italian. Different listeners were chosen for the two parts of the experiment. Participants were allowed to watch the cartoon as many times as they liked, until they felt confident in retelling the story. At that point, they were asked to narrate the story in a clear and detailed way to the listener. They could also take notes, which they could review prior to the narration, however, during the narration they were not allowed to look at their notes. Participants were told that they were taking part in a research that investigated the relationship between language proficiency, narrative comprehension, and memory. They were not aware that gestures were of interest in the study, and gestures were not mentioned in the instructions. The participants' narrations of the stimulus video were videotaped with a camera.

The experiments took place in study rooms at the university or student dorms rather than in a laboratory. The purpose was to try to recreate a communicative situation that would be as naturalistic as possible. Students are quite familiar with such rooms, and therefore it was believed that they would feel at ease in carrying out the experiment there. On the contrary, inviting them into a lab would have negatively affected the naturalness of the gesture-speech production. The rooms had several chairs, all swivel chairs or armchairs, and participants were free to sit wherever they wanted. No instructions were given regarding the sitting position and the positions of the arms and hands, in order to naturalize the production. Moreover, participants watched the cartoon on a laptop rather than on a big screen. These factors contributed to the naturalness of the communicative situation, since, especially university students are well known to watch videos on laptops and sit on swivel chairs.

Establishment of proficiency

In order to establish the English proficiency level of participants an Assistant Professor of English language in the Netherlands provided an assessment of perceived proficiency based on speech production criteria, involving rhythm and pace of production, lexico-semantic accuracy, vocabulary range, and grammatical accuracy.

Data sample

The final corpus comprised 26 narrations produced by 13 Italian native speakers. Of these narrations, 13 were in English and 13 in Italian. Proficiency in English varied across participants. Therefore, two categories have been identified to which narrations were attributed to: higher proficiency and lower proficiency. Of the 13 English narrations, 5 were classified as lower proficiency speaker productions and 8 as higher proficiency speaker productions on the basis of their performance when retelling the story to the listener. Overall, more than two thousand gestures were produced in the English and Italian narrations. Therefore, to answer the second research question, a subsidiary corpus was derived from the initial corpus in order to qualitatively analyze iconic gestures. The subsidiary corpus consisted of iconic gestures produced by six participants, of which three were higher proficiency speakers and three were lower proficiency speakers. For each participant, three pairs of iconic gestures were selected, three performed in the English narration and three performed in the Italian narration. For the gestures to be selected, it was important that they were performed while describing the same point of the narrative sequence in both the speaker's L1 and L2 and that they referred to the same semantic content, in order to allow for a comparison.

Speech transcription

The Italian and English narrations were transcribed by an Italian native speaker, who is also a higher proficiency speaker in English, and checked for accuracy. From each of the Italian narrations, two versions of an English translation were subsequently created. One was a literal, or word by word, translation, where each (or almost) Italian word corresponded to its English counterpart. The other was an idiomatic translation, where the purpose was to transmit the message rather than the literal Italian verbiage. The reason why two types of English translation were made is because they would become useful when interpreting the speech-gesture transcript. The literal translation allows us to accurately associate each Italian word to the corresponding English word, making clear which words were produced during each gesture phase. The idiomatic translation would be helpful in comprehending the meaning of the utterance in cases where the literal English translation would deviate too much from the linear English sentence formation and would make it not possible to understand the meaning of the original Italian utterance. Italian is a null-subject language, whereas English requires an explicit subject in the sentence. Therefore, whenever a null-subject occurred in Italian, a bracketed subject was inserted in the English literal translations. In the idiomatic translations, however,

all subjects were normally expressed. All the repetitions, hesitations, restarts, and audible pauses were included in the transcripts. This was done as well for the literal English translations of the Italian narrations, but not for the idiomatic translation.

Gesture transcription

As previously stated, the interest of the present study is in spontaneous gesticulation used in co-occurrence with speech and which is incomplete without speech accompaniment. What was categorized as gestures, therefore, were movements of the hands and arms that co-occurred and were synchronized with speech production. To detect a gesture and to categorize it as such, the focus was on identifying the stroke, which is the meaning bearing phase of a gesture (McNeill, 2007). It is very likely that the stroke co-occurs with a portion that is linguistically articulated and is co-expressive with the gesture. Therefore, gestures produced in the narratives that corresponded to the aforementioned description, where the stroke was identifiable, were counted and later coded adapting the annotative practice employed in the McNeill Lab at the University of Chicago (Duncan, 2005). Gesture phases were identified (preparation, prestroke hold, stroke, stroke hold, poststroke hold, retraction, McNeill, 2007) in order to allow for a comparison of the single segments of the paired gestures in the two languages. In the transcription, the portion of the text that corresponded to the starting and ending points of a gesture was identified with square brackets. To indicate the segment that corresponded to the stroke (the obligatory part in a gesture, McNeill, 2007) the text was bolded. “*” corresponds to audible pauses, whereas “/” to silent pauses. To classify gestures, the distinction made by McNeill (2007) was applied. The categories (or dimensions) gestures can fall under are four: iconic or *iconicity*; metaphoric or *metaphoricity*; deictic or *deixis*; beat or *temporal highlighting*.

Speech and gesture transcriptions

In the qualitative analysis a subsample from the corpus of iconic gestures produced by 6 participants (three higher and three lower proficiency speakers) in English and in Italian was selected. This resulted in a representative corpus of 36 instances. Gestures produced by the same speaker were coupled, one coming from the English and one from the Italian narration. Such gestures were representing the same part of the narrations in similar or almost equivalent manner. These particular gestures were selected because interesting and contrasting features were visible in the iconicity of gestures performed by higher and lower proficiency speakers.

Therefore, inductive qualitative analysis was conducted looking at the dimensions of such representations produced in coordination with the semantics of the utterances. The concept of iconicity was employed as a criterion to study each gesture, by considering the parameters that are iconic in a gesture and that resemble aspects of the referent. Specific attention was paid to temporal and rhythmic components of speech-gesture production, and to the phases of gestures that co-occurred with speech production.

Visual transcripts were constructed by taking screenshots of the videotaped narrations, during the various phases of the gesture production. The transcripts can be found in the appendix. One transcript contained all the instances in the representative sample produced by the lower proficiency speakers in English and Italian. The other transcript was dedicated to higher proficiency speakers and the gestures produced by the latter in English and Italian. The speakers were numbered, and the transcripts were organized by speaker. In the coupled gestures, the English representation always precedes the Italian one. The transcript included the co-occurring speech, but also the utterances preceding and following it, in order for the reader to clearly understand what the speaker was narrating. Square brackets were used in the transcript of the concurrent speech to indicate where the gesture began and ended. The word(s) that corresponded to the gesture stroke were bolded. The duration of the gesture was added as well, which corresponded to the exact timing the gesture occurred in the videotaped narrations. The screenshots were organized chronologically and were accompanied by the verbiage of speech production. The gesture phases were identified and the various segments composing a single phase were grouped together and separated from the other phases. For the Italian narrations, screenshots were also accompanied by the literal and by the idiomatic English translation.

In the qualitative analysis explicated in the following section, the examples of iconic gestures are presented slightly differently. In order to facilitate the reader in comparing the performance of higher and lower proficiency speakers, first an example from a lower and then one from a higher proficiency speaker were presented. The English-Italian pairs of higher and lower proficiency speakers, as well as the iconic gestures were randomly selected from the subsample. As before, the first example was taken from the English narration and the second from the Italian one. The description included the bracketed co-occurring speech, along with the utterances preceding and following it. The utterance was followed by the timing in the narration when the gesture was performed. The screenshots, organized chronologically, were divided in phases and segments composing each phase, the latter accompanied by the verbiage

of speech production. The word(s) that corresponded to the gesture stroke were bolded. After presenting two examples of a lower proficiency speaker, it follows a detailed description of such gestures. Then, two examples of a higher proficiency speaker are presented, followed by their description. At that point, the performance of the lower and the higher proficiency speakers is compared. This was done for all speakers included in the subsample of the corpus, and for each speaker one English-Italian pair of gesture was selected.

Analysis and results

Quantitative analysis

The quantitative analysis was conducted in order to understand gesture production frequency across the Italian and the English language while spoken by the same speaker. The use of gesture might be different in a bilingual's two languages. However, previous research has failed to provide unanimous findings on the nature of this difference. One expectation could be that that bilinguals will gesture more frequently in their L2, in line with Marcos (1979) and Gullberg (1998). Or, it could be that bilinguals will produce more gestures in their L1, as was shown by Cavicchio and Kita (2013) and Gregersen et al. (2009). If higher gesture rate is found in participants' L2 it could be that proficiency might affect gesture production. However, if gesture rate is found to be higher in Italian, it might be that participants switch parameters and gesticulate less as they speak a low frequency gesture language. Lastly, if Italians will display the same gesture rate across languages, this may allow to determine the occurrence of transfer from a high to a low frequency gesture language, and also that gesture rate is similar in the two languages, since speakers of multiple languages may use similar gesture repertoires across languages. However, if similar gesture rate is found across languages, this could also be a result of the fact that Italian is a high gesture frequency language coupled with an increase in gesture in the L2.

The first research question focused on the frequency of gestures produced by the same speaker cross-linguistically. To answer it, gestures produced by the participants when narrating the story in the two languages were counted and analyzed. In Table 1 the average number of gestures performed in English and Italian can be seen. The number of gestures per se, however, does not tell us whether the representations produced in the Italian and English narrations differ in their frequency. The length of the stories needs to be taken into consideration as well, since it could be that more gestures were produced in longer narrations, as well as the other way around. Thus, this could affect the outcome. The narrations told by the participants in the two languages differed slightly in length. The average of word tokens used in Italian and English can be seen in Table 1. Repetitions were included in the counting, since it occurred that gestures were performed during such repetitions, whereas audible pauses were not included. No significant difference was found between the length of the narrations in the two languages, $t(12) = -0,917, p < .05$. Subsequently, the rate of gestures per word was calculated. These numbers allow for a comparison of gestures produced in the two languages in relation to the

length of the storytelling they belong to. The rate of gestures per word was calculated by dividing the number of gestures by the number of word tokens. The rate of gesture in the two languages can be seen in Table 1. To test whether the narrations in English and Italian show difference in the frequency of gestures performed, a paired sample t-test was run. No significant difference was found between the retellings of the story in the two languages, $t(12) = 0,65, p < .05$.

Table 1		
<i>Comparison between Italian and English narrations</i>		
	<u>Italian</u>	<u>English</u>
Mean number of gesture (SD)	91,54 (42,91)	90,30 (49,91)
Mean number of word tokens (SD)	715,62 (324,30)	658,77 (282, 95)
Rate of gesture	0,127	0,132

Given that there was no difference in frequency within the group, participants were then subdivided into higher and lower proficiency to see if proficiency had a bearing on frequency. Table 2 shows the average gesture rate of higher and lower proficiency speakers in English. An independent sample t test was run on gesture rate produced during English narrations by the two subgroups. There was a subtle difference in the mean gesture rate of higher and lower proficiency speakers. On average, lower proficiency speakers produced more gestures when narrating the story in English ($M = 0.14, SE = 0.02$) than did higher proficiency speakers ($M = 0.13, SE = 0.01$). However, this difference did not reach statistical significance, $t(11) = 0,42, p < .05$.

Table 2	
<i>Gesture Rate of Speakers Divided by Proficiency Levels in English</i>	
<u>Gesture rate</u>	<u>English</u>
Lower proficiency speakers (SD)	0,139 (0,05)
Higher proficiency speakers (SD)	0,128 (0,03)

Qualitative analysis

A study was designed to test whether there was frequency variation in gesture production during narrations in a speaker's L1 and L2, Italian and English respectively. However, the results showed that no frequency variation is found across speakers of L1 Italian and L2 English. Because of the lack of statistical difference, participants were subsequently subdivided into higher and lower proficiency to see if proficiency had a bearing on frequency. Again, no frequency variation contingent on proficiency was found across participants. Given that there was no gesture frequency variation found, a third step involved conducting an inductive qualitative analysis on the narrations to investigate whether or not there was any variation in the realization or salience of co-speech gestures across languages.

As for the quantitative analysis, also for the qualitative analysis the corpus was analyzed with a particular focus on the same speaker across languages, to account for idiosyncratic variation during the repetition task. First, gestures were classified according to McNeill's dimensions. After the classification, only iconic gestures were further investigated. Qualitative analysis revealed a high significance of iconic gestures cross-linguistically and across proficiency levels, given their high frequency within the corpus and due to similarities in the spatio-temporal and structural qualities of the gesture strokes. Gestures are known to be abundant in storytelling (Gullberg et al., 2008) and a possible explanation as to why they were found to be prominent is because, as proposed by McNeill (1985), iconic gestures accompanying speech may convey critical information in interpersonal communication. Moreover, the iconic gestures in the narrations figured as salient cross-linguistically in the sense that, when comparing the narrations produced by the same speaker, there were many similarities in the functional properties of the representations produced across languages which related to similar semantic content. This would seem to suggest that speakers of multiple languages may indeed use similar gesture repertoires across languages, as though there might even be a gestural idiolect to some extent. As previously said, extensive research has been conducted on the role and function of iconic gestures. However, the vast majority of research has focused on iconic gestures produced by native speakers. Studies comparing iconic gestures in different languages has mainly been conducted on iconic gesture encoding meaning components of motion, like path and manner produced by speakers of typologically different languages (e.g. Özyürek, 2002). Moreover, research on L2 learners has mainly focused on frequency variation. This fails to provide an understanding about other potential cross-linguistic differences, which may not be related to frequency or motion encoding. Qualitatively looking at iconic gestures in a

speaker's L1 and L2 might help us to add to our understanding of such gestures and their function. Moreover, if we consider speech and gestures to be two integrated systems, as posited by McNeill (1985) and Kendon (1997), then gestures become important too in the study of languages and may be able to give us insights on L2 speakers and language development. As Gullberg et al. (2008) argue, analyzing gestures and speech together may provide a fuller picture of learners' strategies of problem-solving. Therefore, the focus of the qualitative analysis is on iconic gestures performed in L1 and L2, with the hope to get insights on possible learners' communicative strategies in real time.

The qualitative analysis was conducted on a representative sample composed of 36 iconic gestures performed by six randomly selected participants whom had varying levels of proficiency. Three participants were considered lower proficiency speakers and three higher proficiency speakers. The initial gesture inventory of the corpus involving classification of gestures completed across narrations revealed a peculiar pattern in relation to iconic gestures specifically. Looking across languages of narration, it appeared that there were many similarities in the functional properties of the iconic gestures produced across languages. For example, a higher proficiency speaker, when describing the scene of Sylvester hiding and spying Tweety from behind a newspaper, simultaneously moved both hands close to the face, in a fist/grasping position, at the height of the eyes and then stopped for a brief moment. The representation may refer to the act of holding/reading a newspaper. What is noteworthy is that this gesture was performed both in the Italian and English narration in a quite similar fashion. This pattern of performing 'similar' iconic gestures at the same point of the narrative sequence in both the speaker's L1 and L2 was common throughout the data set, regardless of proficiency. Therefore, similar gestures produced across languages became the focus of the analysis.

The gestures selected for the analysis were paired for each participant, one performed in the English and one in the Italian narration. The coupled gestures were produced by the speaker when narrating the same action or portion of the story (e.g. Tweety drying himself off with Sylvester's tongue) and depicted the action or the object in question in a relatively similar fashion. The gestures produced in the speaker's L1 and L2, however, did not appear to be completely identical. The analysis revealed a subtle variation in the structural configuration of repeated iconic gestures, which seems to align roughly with the linguistic proficiency level of the participants performing the narration. While higher and lower proficiency speakers both performed similar iconic gestures for similar narrative sequences in both English and Italian, there is a subtle though important difference in the structural unfolding of those gestures,

specifically for the lower proficiency participant population. It would appear that the gestures produced by the latter in their L2 were more iconic than those produced in the L1. As discussed in the literature review, some have posited the idea that the degree of iconicity in gestures may vary, depending on the features of gestures resembling the semantic features of the meaning they represent. Thus, there may be different levels of iconicity (Perniss and Vigliocco, 2014; Poggi, 2008). In the above-mentioned gestures, higher degrees of iconicity were visible in wider movements of the arms and hands, larger gesture space used, longer gesture timing, speed of gesture, semantic relation of the action performed by the character in the cartoon to the gesture. However, as opposed to lower proficiency speakers, gestures of higher proficiency speakers in the L1 and L2 did not differ to such extent. Overall, they were similar in terms of the semantic features of the referent, gesture timing, and space.

Figure 1 and Figure 2 show an example of two iconic gestures performed by a lower proficiency speaker. In Figure 1 the language of narration was English, whereas in Figure 2 it was Italian. The participant was describing Tweety having a bath in a bird pool. Once the bird is done, he looks for something to dry himself off with. Sylvester was nearby, trying to eat him, so he opens his mouth, but Tweety, with his eyes closed, takes Sylvester's tongue and uses it as a towel.

“He offers his tongue to the bird for mhh drying up itself, and the bird was like not at all looking because she was washing and take, took the tongue [and **tried to * dry herself**]” (00:46 – 00:49)^{1 2}

[and tried to *



dry herself]

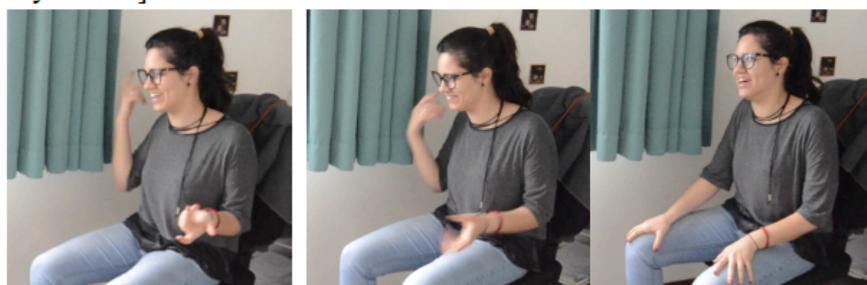


Figure 1. Iconic gesture of Tweety drying himself off with Sylvester’s tongue performed in English

“Silvestro gli offre la lingua per pulirsi, [l’altra **si asciuga**]” (00:35)

“Sylvester her offers the tongue to clean himself, [the other **herself dries off**]”

“Sylvester offers her the tongue to clean himself, the other dries herself off”

[l’altra

[the other

[the other

si asciuga]

herself dries off]

dries herself off]

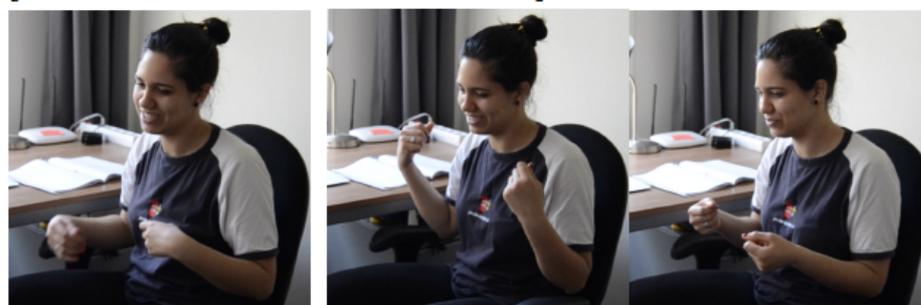


Figure 2. Iconic gesture of Tweety drying himself off with Sylvester’s tongue performed in Italian

¹ In Italy many people believe that Tweety is female, since it is difficult to attribute the dubbed voice of the character to a male or a female.

² [] indicates the portion of the text that corresponds to the starting and ending points of the gesture

bold text indicates the stroke phase

* corresponds to audible pauses

/ corresponds to silent pauses

In Figure 1, at 00:46 Jane is recalling the cartoon scene involving Tweety drying off with Sylvester's tongue. The language of narration is English. In Frame 1 at 00:46, Jane's left and right hands are both located just below the height of her chin to the respective left and right sides of her body with elbows bent. Prior to the initiation of the gesture, her right hand is located slightly higher in the gesture space, probably as a result of the previous iconic gesture which has just been performed during the utterance "took the tongue" where she uses an iconic gesture whereby she grabs and holds something in her hand, probably to reference the tongue of Sylvester. In Frame 2, still at 00:46, Jane's hands are both closed in a fist/grasping position appearing to be holding an object on both ends – in this case she is probably still referencing the tongue of the cat which was accidentally used as a towel. At the onset of the utterance "dry herself", Jane begins a coordinated back and forth motion with both hands simultaneously. While doing so, her hands and arms are extended out from her torso. During the back and forth motion, which occurs two times, Jane's left hand moves from just beside her shoulder to nearly full extension away from her body, though her arms and hands do not travel at equivalent distance. Given the dual hand gripping, back and forth repetitive strokes with both hands moving side to side and being extended from her torso, it appears that this movement, which co-occurs with the utterance "and tried to", is attempting to depict a form of drying off with a towel. In the cartoon, Tweety is performing almost the same actions, but with the arms inverted.

In Figure 2, Jane is recalling the same cartoon scene involving Tweety drying off with Sylvester's tongue, this time in Italian. In Frame 1 at 00:35, Jane's left and right hands are located below her torso to the respective left and right sides of her body with elbows bent, left hand slightly higher. Jane's hands are both closed in a fist/grasping position. In Frame 2, at the onset of the utterance "*si asciuga*", hands and forearms have moved up at the height of her chin, and quickly go back to the starting position in Frame 3. Like the gesture in Figure 1, the hands appear to be holding an object on both ends – probably referencing Sylvester's tongue. The movement is fast and is performed only with the hands and forearms, while the elbows are on the sides of the body, bended at all times. The dual hand gripping, with both hands moving up to the height of Jane's chin and quickly back to the starting position – resembling someone putting a towel around their neck – and the co-occurring speech "*si asciuga*", dries herself off, suggest that the participant is attempting to depict a form of drying off with a towel.

As it is visible from Figure 1 and Figure 2, the two iconic gestures represent similar semantic content, they both seem to be describing Tweety that dries off with Sylvester's tongue. However, differences can be seen in the two representations. First, the gesture performed in

English lasts much longer compared to the one of the Italian narration, which is quite fast (3 seconds in English, compared to 1 second in Italian). More gesture space is used in the gesture in Figure 1, where both arms extend almost completely away from the body, with the right hand moving above Jane's shoulder and the left down at the height of her hip. In Figure 2, conversely, only the hands and forearms move, while the elbows are bended on the sides of the body. More semantic features of the referent (Tweety drying off with Sylvester's tongue) are depicted by the iconic gesture performed in the English narration compared to that of the Italian one, which seems more abstract, in Perniss and Vigliocco (2014) terms. From the iconic representation in English, we infer the manner in which the little bird is drying off, rubbing something against its back, from up right to down left (although in the cartoon was the other way around). We also infer that it is a continuous movement that occurred more than once. Moreover, we infer that Tweety is not drying its face, for example, but its back. Such semantic information of the referent seems to be missing in the iconic gesture performed in Italian, which is lacking some features and, thus, in this sense, more abstract. In Figure 1 it almost looks like Jane is rubbing her back with a towel, or with Sylvester's tongue, which is almost the same movement that the character was performing in the cartoon. In Figure 2 instead, it looks like she is barely putting something around her neck. Therefore, from the analysis, it would appear that the gesture in the L2 is more iconic and displays higher degrees of iconicity compared to that in the L1.

As previously mentioned, higher proficiency speakers too performed analogous iconic gestures for similar narrative sequences in both English and Italian. However, the iconic gestures performed by higher proficiency speakers in English and in Italian were very much alike. Figure 3 and Figure 4 show an example of two iconic gestures performed by a higher proficiency speaker. In Figure 3 the language of narration was English, whereas in Figure 4 it was Italian. The participant was describing a scene in the park that involved a nanny, Tweety, and Sylvester disguised as a baby. Baby Sylvester is shouting and crying because he wants the bird, that is on backrest of the bench where the nanny is sitting. The woman, not noticing that it is Sylvester and not a baby, to make him stay quiet, grabs Tweety and gives him to Sylvester.

“[and the lady takes the **the bird** and], without thinking about it, gives it to the to the cat” (01:55 – 01:57)

[and the lady



takes the



the bird



and]



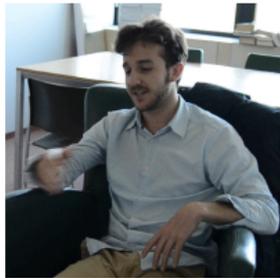
Figure 3. Iconic gesture of the nanny grabbing Tweety from the backrest of the bench performed when speaking English

“Allora la signora [acchiappa * Titti che sta qui sulla spalla] e glielo dà, senza pensarci” (02:08 – 02:09)

“So the woman [grabs * Tweety that is here on the shoulder] and him he gives, without thinking”

“So the woman grabs * Tweety that is here on the shoulder and gives it to him, without thinking”

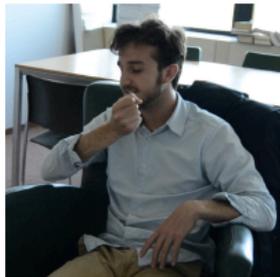
[acchiappa
[grabs



*
*



Titti
Tweety



che sta qui sulla spalla]
that is here on the shoulder



Figure 4. Iconic gesture of the nanny grabbing Tweety from the backrest of the bench performed when speaking Italian

In Figure 3, Joseph is recalling the cartoon scene involving the nanny that grabs Tweety from the backrest of the bench where she is sitting. The language of narration is English. In Frame 1 at 01:55, prior to the initiation of the gesture, Joseph’s elbows are on the armrests of the chair, left and right hands are not touching the armrests and are moving in two different directions: left hand and forearm move down while the right arm and hand move towards the left shoulder. Subsequently, only the right hand and arm will be used to perform the iconic gesture. In Frame 2, the left arm is in a resting position on the armchair. Right elbow bent, the fingers of the right hand are now extended, the hand is at the height of Joseph’s face and keeps moving towards the left shoulder. These movements are co-occurring with the utterance “and the lady”. In Frame 3, at 01:56, Joseph’s right hand is now close to the left shoulder, fingers are closing in a fist/grasping position, appearing to be grabbing something – “takes the” is the co-

occurring utterance, therefore, here he is likely to be referencing the grabbing movement. At 01:57, Frame 4, the right hand is now closed in a fist and is still close to the shoulder, while in Frame 5, the hand, still in the fist/grasping position, stops for a very brief moment and then starts to move away from the shoulder. In these two frames the stroke occurs and the utterance accompanying it is “the bird”. These movements may represent the nanny holding the bird in her hand and removing him from the backrest of the bench to then put him in another place, as it would appear in Frame 6, where this moving away movement continues until a new gesture starts. Given the movement of the hand towards the shoulder and the backrest of the chair, and the hand gripping, it appears this movement is attempting to depict somebody grabbing and holding something in their hand, very similar to the movement performed by the nanny in the cartoon when grabbing the little bird.

In Figure 4, Joseph is still recalling the cartoon scene involving the nanny that grabs Tweety from the backrest of the bench where she is sitting, this time in Italian. Prior to the initiation of the gesture, Joseph’s arms are in a resting position on the armrest of the chair. As before, only the right hand and arm will be used to perform the iconic gesture. In Frame 1 at 02:08, the right hand, with the fingers stretched, moves away from armrest. This movement co-occurs with the utterance “*acchiappa*”, she grabs. In Frame 2, still at 02:08, the left hand and arm keep moving towards the left shoulder, fingers still stretched, and the hand is just below Joseph’s chin. In Frame 3, the hand is now above his left shoulder and the fingers are closing in a fist/grasping position. Frame 4 displays Joseph’s hand, now in a closed fist/grasping position, that is moving away from the shoulder, the arm following the same trajectory as when approaching the shoulder, only, this time, moving from left to right. Frame 2, 3, and 4 represent the stroke phase of the gesture and the co-occurring speech is an audible pause “*”. The movements in the three frames probably represent the nanny grabbing something from above her shoulder. At 02:09, in Frame 5, the hand stops in the air for a brief moment, at the height of Joseph’s chin. The co-occurring speech is “Tweety”, thus, the stopping movement may be a form of presenting the object of the action, the little bird. In Frame 6 the hand, still in the fist/grasping position, moves away from the shoulder, to go back to the resting position in Frame 7. These last two frames co-occur with the utterance “*che sta qui sulla spalla*”, that is here on the shoulder. It could be that the speaker might have confused the position of the bird. In the cartoon, indeed, Tweety was on the backrest of the bench, and not on the nanny’s shoulder. Given the movement of the hand towards the shoulder and the hand gripping, it appears this movement is attempting to depict somebody grabbing and holding something in

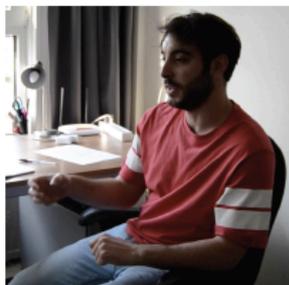
their hand, again, very similar to the movement performed by the nanny in the cartoon when grabbing the little bird.

The semantic content of the iconic gestures in Figure 3 and Figure 4 is quite similar. The participant is describing the nanny that grabs Tweety from the backrest of the bench where she is sitting. Contrary to Figure 1 and Figure 2, in this case it is visible from the analysis how the two representations resemble each other. The length of the gestures is almost the same (there is 1 second difference between the two), as well as the speed at which gestures are performed. Both the gestures in English and Italian are performed with the right hand. The gesture space used is similar in both representations. The arm extends from the armrest to the left shoulder in both cases (the participant is sitting on the same chair in both conditions). The semantic features of the referent (the nanny that grabs Tweety from the backrest of the bench) included in the iconic gestures appear to be the same. Like the character in the cartoon, the speaker moves his right arm and hand towards his left shoulder, appearing to be grabbing something and removing it from its position. Both gestures are performed from a CVPT (character viewpoint), thus the subject of the action is the speaker himself. From the gestures, we infer the action is performed with one hand, with a movement that goes from the right side of the body to the left shoulder of the character and back to the side. A semantic feature of the object, the little bird, seems to be included in the gestures when Joseph closes his fist to grab something, thus the object of the action can be seen as an entity that can be held in a fist. The location of the object is included as well in both gestures (above the shoulder of the subject). Moreover, when Joseph closes his hand in a fist, he stops for a very brief moment before finishing the movement, probably to highlight the object. Indeed, in that time the co-occurring speech is “the bird” and “*Titti*” in English and Italian respectively. Therefore, from the analysis, it would appear that both the iconic gesture in the L1 and that in the L2 display a similar degree of iconicity.

Figure 5 and Figure 6 represent other gestures performed by a lower proficiency speaker. The scene Leo is describing takes place in the park, and involves Tweety, Sylvester disguised as a baby, and a nanny. Sylvester, pretending to be the child the nanny was looking after, starts crying and shouting because he wants the little bird, that is on backrest of the bench where the nanny is sitting. When the woman finally gives Tweety to baby Sylvester, the cat puts the bird into his mouth and tries to eat him.

“...trying to convince the the lady * to give him the the bird, and when the lady do, do it, * of course Sylvester [try to eat it], but the lady * take this bird from from his mouth” (03:02 – 03:04)

[try



to eat it]

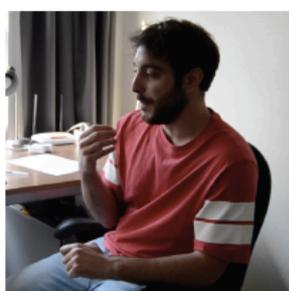
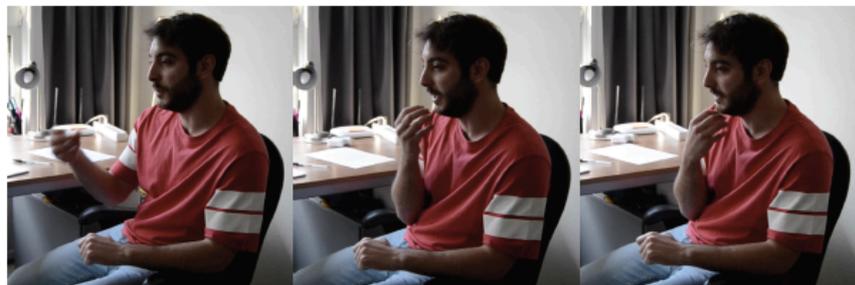


Figure 5. Iconic gesture of Sylvester that put Tweety into his mouth performed when speaking English

“Silvestro prende diciamo Titti in mano con una risata malefica e e tenta di [* **mangiarlo**], ma una volta messo in bocca, la mamma lo prende e inizia a sculacciarlo e e a rimproverarlo.” (03:17)

“Sylvester takes let’s say Tweety in the hand with an evil laugh and and tries to [* **eat it**], but once (he) put him in mouth, the mom him takes and starts spanking him and and scolding him.”

“Sylvester takes Tweety and with an evil laugh tries to eat it, but once he put him in his mouth, the mom takes him and starts spanking him and scolding him.”

[*

mangiarlo]

[*

eat it]

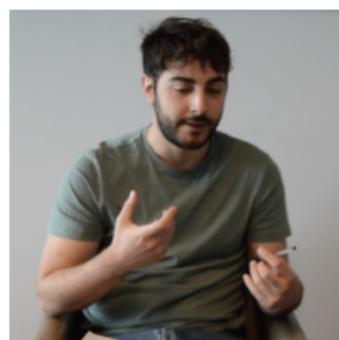
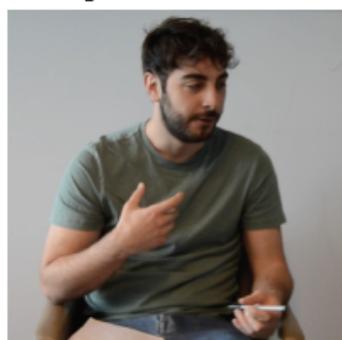
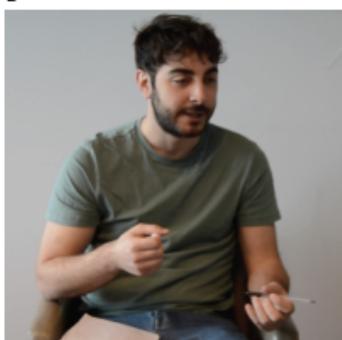


Figure 6. Iconic gesture of Sylvester that put Tweety into his mouth performed when speaking Italian

In Figure 5, Leo is recalling the cartoon scene involving Sylvester putting Tweety into his mouth trying to eat the bird. The language of narration is English. The duration of the representation, from the onset to its ending, is approximately 2 seconds. In Frame 1, at the onset of the gesture, Leo's left arm is resting on the arm of the chair, whereas the right arm will be used to perform the gesture. Still in Frame 1, Leo is lifting the right arm and hand from the armrest, the fingers positioned as if they are about to grab something. In Frame 2 the right hand keeps moving towards the mouth, tips of the fingers almost touching each other, in a rounded shape. In Frame 3 the hand is now at the height of the mouth, close to the lips and this movement continues in Frame 4, where the hand has moved under the chin, as if it would indicate that the bird went inside the mouth of the cat and is now in his throat. The movements in Frame 2, 3 and 4 correspond to the stroke phase of the gesture. The co-occurring speech Leo uttered is "to eat it", and, looking at the shape of the hand and the movement towards the mouth, it is likely the gesture symbolizes the movement of someone putting something into their mouth. Frame 5 represents the ending part of the gesture and the start of another one. The hand is now moving away from the mouth and is about to perform another gesture related to the subsequent part in the narration.

In Figure 6, still recalling the cartoon scene involving Sylvester that puts Tweety into his mouth in the attempt to eat it, Leo is now narrating the story in Italian. This iconic gesture is performed by the speaker in about 1 second. Frame 1 represents the onset of the gesture. Prior to the initiation of the gesture, Leo is in a resting position. In Frame 1 his right hand moves from this resting position to perform the gesture, while the left hand and arm are resting on the arm of the chair. The right hand is almost closed in a fist and starts moving up, towards the face of the speaker. In Frame 2 the hand is now at the height of Leo's chest in front of him, and the thumb and index fingers are extended, index finger slightly bent. The hand stops in this position for a very brief moment, while the speaker is saying "*mangiarlo*", "eat it". The frame just described represents the stroke of the gesture. In Frame 3, the ending phase of the gesture, the hand has somewhat moved away from the body and Leo has slightly rotated the hand outward. At this point, another gesture begins. We can suppose that the speaker is likely to be referencing the act of eating, by moving something close to the mouth, in a similar fashion as Sylvester is moving Tweety close to his mouth.

The gestures presented in Figure 5 and Figure 6, performed in the English and Italian narrations respectively, refer to a similar semantic content. As previously said, Leo was narrating a scene in which Sylvester, in the attempt to eat Tweety, put it into his mouth. The

co-occurring speech in both narrations was rather similar. While in English the gesture was performed while uttering “try to eat it”, in Italian the verb *tenta*, “(he) tries”, was articulated prior to the onset of the gesture, which co-occurred with *mangiarlo*, “eat it”. The unfolding of the two gestures, however, presents a few noticeable differences. While both gestures are performed with the same hand, in Figure 5 the movement goes from the height of the armrest up to the mouth of the speaker, to then go below his chin and stops. In Figure 6, however, the gesture space is limited to the area just in front of Leo, from the armrest of the chair to the height of the speaker’s chest. While the speaker appears to be holding something in both cases, in the Italian narration the object held does not reach the mouth. Instead, in the English narration it would almost appear that the speaker is showing the exact trajectory followed by the bird, up to the throat of the cat, this last portion represented in Frame 4, when the speaker’s hand went below the chin, close to the speaker’s throat. The semantic features of the referent, thus, appear to be differently encoded. From the gesture in Figure 6 we only know that the character moved something in the space and that this something can possibly be held in one hand. From the gesture in Figure 5 we do not actually know the size of the object of the action, but we know that this something has been moved from its position to the mouth of the character, and presumably, till the character’s throat. Another difference in the two examples is the duration of the iconic representation, longer in the L2 narration. From the analysis, therefore, it would appear that the gesture performed in the English narration is more iconic and displays higher degrees of iconicity compared to that in the Italian one.

Figure 7 and Figure 8 show another example of two iconic gestures performed by a higher proficiency speaker. In Figure 7 the language of narration was English, whereas in Figure 8 it was Italian. The participant was describing a scene in the park whereby Tweety is taking a bath in a bird pool. Once the bird is done, he needs something to dry himself off with, but because he is all wet and his eyes are close, he blindly tries to reach for something to get dry.

“...he’s there almost getting Tweety into his mouth, but Tweety [is just **blindly**] reaching for something to dry himself so he starts using the tongue as a towel.” (00:26 – 00:27)

[is just



blindly]



Figure 7. Iconic gesture of Tweety looking for something with closed eyes performed when speaking English

“...si avvicina a Titti e sta per metterlo in bocca, ma Titti si deve asciugare [quindi **non vede**] e prende la lingua di Silvestro per iniziare ad asciugarsi.” (00:27 – 00:28)

“...(he) gets close to Tweety and (he) is about to put him in his mouth, but Tweety himself needs to dry off, [so (he) **doesn't see**] and takes the tongue of Sylvester to start drying himself.”

“...he gets close to Tweety to put him in his mouth, but Tweety needs to dry himself off, so he can't see and takes Sylvester's tongue to start drying himself off.”

[quindi

[so

[so



non vede]

(he) doesn't see]

he can't see]

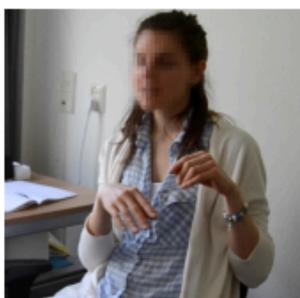
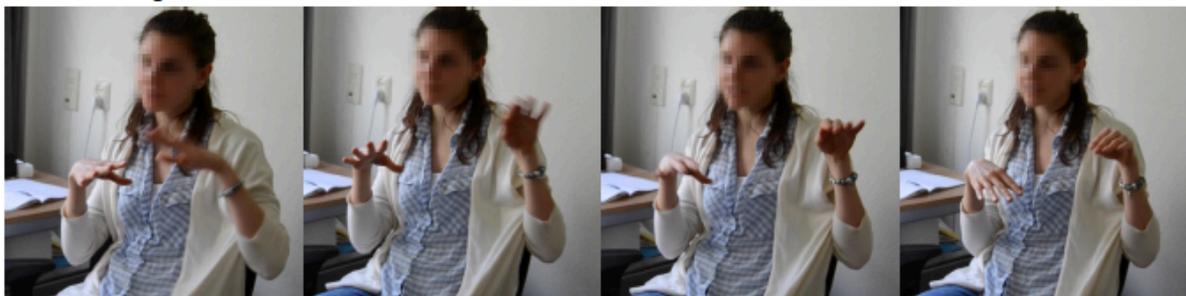


Figure 8. Iconic gesture of Tweety looking for something with closed eyes performed when speaking Italian

In Figure 7, Julie is recalling the cartoon scene involving Tweety that, with closed eyes, is looking for something to get dry. The language of narration is English. Prior to the initiation of the gesture, Julie is in a resting position, with the right arm on the armrest of the chair, while the left hand is scratching her ankle. In Frame 1 at 00:26, the hands leave the initial position to perform the gesture. In Frame 2, still at 00:26, Julie's elbows are at the sides of her body. Forearms and hands are about to perform the gesture. The hands are open, fingers stretched, the right hand is just above the armrest, while the left hand is at the height of her knee and is moving upward. These two frames co-occur with the utterance "is just". In Frame 3, at 00:28, the hands are in front of the speaker next to each other, not touching, palms down. In the following part, Frame 4, the hands start moving to the left and perform a circular counterclockwise movement, which is unfortunately not quite visible in the screenshots. This circular counterclockwise movement continues in Frame 5, where the distance between the hands gets bigger. "Blindly" is the co-occurring utterance the speaker says while performing the movements in Frame 3, Frame 4, and Frame 5. These frames represent the stroke phase of the gesture. The last portion of the gesture, Frame 6, displays the retraction phase of the gesture, in which the hands go back to the starting position. It is possible that the representation just described, coupled with the co-occurring utterance "is just blindly" may refer to someone trying to reach for something, possibly with closed eyes. More specifically, the gesture may refer to Tweety that, without seeing, tries to reach for something to get dry, like a towel.

In Figure 8, Julie is still describing the portion of the story whereby Tweety, with closed eyes, is looking for something to get dry. This time the language of narration is Italian. In Frame 1 at 00:27, Julie's left and right hands are both located at the height of her shoulders to the respective left and right sides of her body with elbows bent. The hands are hanging in midair, probably as a result of the previous gesture which has just been performed during the utterance "*Titti si deve asciugare*", "Tweety needs to dry himself off", whereby her right and left hands were suspended above the right and left shoulders respectively. Still in Frame 1, the hands are almost in front of each other, palms inwards, and the wrists are slightly bended. "*quindi*", "so" is the co-occurring utterance, followed by "*non vede*", "(he) can't see" which is uttered with the co-occurring movements in Frame 2, Frame 3, Frame 4, and Frame 5, the stroke of the gesture. In Frame 2, still at 00:27, the right hand is in a horizontal position, palm down, and the fingers are stretched, while the left hand is in a more oblique line, higher in the space compared to the right one. The movement continues in Frame 4 where the hands, still the left higher than the right, perform a circular movement, as if they were making a circle, left moving

counterclockwise and right moving clockwise. This circle movement continues in Frame 4 and ends in Frame 5, whereby the left hand is located at the height of the shoulders and the right slightly lower, both palms down. The gesture ends at 00:28, in Frame 6, in which the hands stop in a post stroke hold phase, right hand, with fingers extended, at the height of Julie's chest, and left hand slightly higher, with fingers almost close. At this point another gesture starts related to the following part of the narration. As the previous example, it is possible that the iconic gesture just described, which co-occurs with the utterance "*quindi non vede*" "so (he) can't see" may refer to someone trying to reach for something, possibly with closed eyes. More specifically, the gesture may refer to Tweety that tries to reach for something go get dry, but he can't see because his eyes are close.

The semantic content of the iconic gestures in Figure 7 and Figure 8 is quite similar. As previously said, Julie is describing Tweety that, with closed eyes, looks for something to get dry. From the analysis it is visible how the two representations resemble each other. The length of the gestures is almost the same (probably there is a tenth of seconds difference), as well as the speed at which gestures are performed. The semantic features of the referent included in the iconic gestures appear to be the same: the little bird that blindly moves his paws in search for something like a towel to dry himself off. From the gestures, we infer the action is performed with both paws, and that this search occurs in proximity of the bird's body. Both the gestures in English and Italian are performed with both hands, although the direction of the movement is slightly different. In the gesture in Figure 7 both hands follow a counterclockwise direction, while in that in Figure 8 the left hand moves in a counterclockwise direction while the right one in a clockwise direction. The gesture space used is similar in both representations, but here again there is a fine difference: while in the English narration Julie performs the gesture in the space right in front of her, in the Italian one, her hands are located slightly to her left while performing the gesture. Although visible, these subtle differences may probably not be attributable to the differences in degrees of iconicity in the gestures just described, which, from the analysis, would appear to display similar a degree of iconicity.

Figure 9 and Figure 10 show further examples of iconic gestures performed by a lower proficiency speaker. In Figure 9 the language of narration was English, whereas in Figure 10 it was Italian. The participant was describing a scene whereby Tweety flies on the sill of a window of a high building. To reach the bird, Sylvester starts chewing a bubblegum and inflates a balloon with the bubblegum. Once he reaches Tweety, the bird takes a needle, pierces the balloon and bursts it.

*“...but for three – he try for three times and every time she she find out a solution to keep the cats away from her. And finally – [the first time she **beat** the balloon]” (03:05 – 03:08)*

[the first time



she



beat



the balloon]

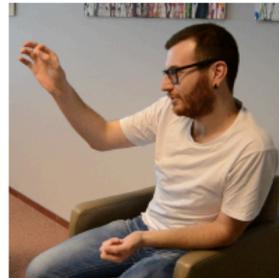


Figure 9. *Iconic gesture of Tweety piercing the bubblegum balloon with a needle performed when speaking English*

“La prima volta [Titti **con un ago***] riesce a sgonfiare, a scoppiare il palloncino e quindi Gatto Silvestro cade giù dal palazzo.” (01:55 – 01:56)*

“The first time [Tweety* **with a needle***] manages to deflate, to burst the balloon and so Sylvester Cat falls down from the building.”

[Titti*
[Tweety*]



con un ago*]
with a needle*]



Figure 10. *Iconic gesture of Tweety piercing the bubblegum balloon with a needle performed when speaking Italian*

In Figure 9 Lucas is recalling the cartoon scene involving Tweety piercing and bursting the balloon Sylvester made with a bubblegum. The language of narration is English. Prior to the initiation of the gesture, Lucas is in a resting position. The left arm is on the armrest of the chair and the right hand is at the end of the armrest, while the forearm and elbow are not touching the chair. In Frame 1, at 03:05, Lucas starts lifting his right hand to perform the gesture. The tips of the thumb and index finger are touching, while the other fingers are slightly bent. In Frame 2 Lucas keeps raising his right hand, which is now at the height of the mouth. The fingers are in the same position as Frame 1. The utterance co-occurring with these two frames is “The first time”. In Frame 3, the right hand, close to the face and still at the height of Lucas’ mouth, stops in that position for a brief moment, with thumb and index fingertips still touching. This frame represents the prestroke hold phase, whereby a temporary cessation of the movement occurs before the stroke, and it co-occurs with the utterance “she”. Frame 4 and

Frame 5 depict the stroke phase of the gesture at 03:06. At the onset of the utterance “beat”, Lucas’ right hand and forearm first move backwards (Frame 4) and then frontwards (Frame 5) in the space. The thumb and index fingertips are touching, as if they are gently holding a small object, like a needle, while the rest of the fingers are slightly bent. It would appear that the object the speaker is holding is being used to touch or hit something, or, as in the cartoon, to pierce a balloon. In Frame 6, at 03:07, the hand stops in midair, while maintaining the final position of the stroke and Lucas utters the co-expressive speech “the balloon”. Frame 7 is the retraction phase, whereby the gesture ends and the speaker goes back to the resting position.

In Figure 10, Lucas is still recalling the cartoon scene involving Tweety piercing and bursting the balloon Sylvester made with a bubblegum, this time in Italian. The gesture begins at 01:55, which corresponds to Frame 1. Lucas’s right hand is at the height of his mouth, elbow up, almost at the same level of the hand. This position is a result of the speaker’s previous movement, whereby he was scratching his chin. The left arm is on the backrest of the couch and will not be used to perform the gesture. In Frame 2, the right hand goes up almost above Lucas’ head, and it is closed in a fist, but the index finger is not aligned with the other fingers and it is slightly elevated. From this angle, however, it is not visible the position of the thumb. The co-occurring speech is “*Titti*” followed by an audible pause. In Frame 3, at 01:56, the right hand, still closed in a fist, returns at the height of the mouth, and goes up again in Frame 4, with the index finger still slightly elevated and not aligned with the rest of the fingers. Finally, the movement ends in Frame 5, where the hand returns in front of Lucas’ head and stops for a very brief moment, the shape of the hand still the same, closed in a fist, index finger slightly elevated, before performing another gesture. Frame 3, Frame 4, and Frame 5 display the stroke phase of the gesture, where the co-occurring utterance is “*con un ago*”, “with a needle” followed by an audible pause. It would appear that the movements just described and the co-occurring speech, may symbolize someone holding an object, presumably a tiny object. However, it is not completely clear what this person may be doing with this tiny object. Possibly, the person may be hitting something, or, as in the cartoon, may be piercing a balloon like Tweety did.

As previously said, the two iconic gestures depicted in Figure 9 and Figure 10 represent similar semantic content, they both would appear to be describing Tweety piercing or hitting the balloon Sylvester made with the bubblegum. However, as the previous examples, there are some subtle but noticeable differences between the two representations. The duration of the two iconic gestures differ, the one performed in English being quite longer than the one of the Italian narration (3 seconds in English, compared to 1 second in Italian). Consequently, the speed at

which the gestures are performed is different as well. The movements represented in Figure 10 are performed very quickly, while speed at which the movements in Figure 9 unfold is moderate. Moreover, from the analysis, it would appear that there is also a subtle difference in the semantic relation of the action performed by the character in the cartoon to the gestures performed during the narrations in L1 and L2. More specifically, it seems that the similarity between the iconic gesture and the action Tweety performed is greater for the iconic representation in the English narration than for that in the Italian narration. The gesture in Figure 9 is very much alike the movement Tweety did with the needle to burst the balloon. From the movements in Figure 10, instead, it is not very clear what the character in the cartoon was doing and how he burst the balloon. Because of the differences just explicated, it would appear that the gesture in the L2 is more iconic and displays higher degrees of iconicity compared to that in the L1.

Figure 11 and Figure 12 show two examples of iconic gestures performed by a high proficiency speaker. In Figure 11 the language of narration was English, whereas in Figure 12 it was Italian. Alice was describing Sylvester that gets close to the bird pool where Tweety was having a bath and opens his mouth in the attempt to eat the little bird.

“Eventually he gets to the fountain and [opens his mouth to eat her basically]” (00:27 – 00:30)



Figure 11. *Iconic gesture of Sylvester opening his mouth to eat Tweety performed when speaking English*

“finché arriva nella fontana [per mangiarla con la bocca aperta]” (00:16 – 00:18)

“until (he) arrives in the fountain [to eat her with the mouth open]”

“until he arrives to the fountain [to eat her with his mouth open]”



Figure 12. *Iconic gesture of Sylvester opening his mouth to eat Tweety performed when speaking Italian*

In Figure 11, Alice is describing the scene whereby Sylvester opens his mouth in the attempt to eat the bird. The language of narration is English. At the onset of the gesture, in Frame 1 at 00:27, Alice is in a resting position, her elbows are on her knees, the hands are touching each other and are located in front of the speaker, at the height of her throat. In Frame 2, still at 00:27, the hands detach to perform the gesture. The right hand starts going down while the left one goes up, elbows still resting on the knees. This movement is completed in Frame 3, where the right forearm and hand are extended horizontally, palm up, and the left forearm and hand are extended vertically, at the left of Alice’s face. Frame 2 and Frame 3 represent the stroke phase of the gesture and co-occur with the utterance “opens his mouth to”. In Frame 4, at 00:29, Alice has slightly rotated her left hand inward but stands still in this position for a brief moment. The co-occurring speech is “eat her”. In Frame 5, at 00:30, the left hand moves down slightly, while the right hand does not move. Here, Alice was uttering “basically”. Frame 6 depicts the end of the gesture and the start of a new one. The movement of the hands that drift apart, coupled with the co-occurring speech “opens his mouth to eat her basically” would seem to suggest that the gesture performed by the Alice refers to the action of opening the mouth, performed by Sylvester who, in the cartoon, opened his big mouth to eat the little bird.

In Figure 12, Alice is recalling the same cartoon scene involving Sylvester who opens his mouth in the attempt to eat Tweety, this time in Italian. In the starting position, at 00:16, Alice’s hands are in front of her at the height of her chest, the right hand is on top of the left

one, palms down. This position, visible in Frame 1, is a result of the previous gesture, performed in that same gesture space. In Frame 2 the hands detach to perform the gesture. The right hand starts going up and the elbow moves away from the body, while the left hand goes down, with the left elbow at the side of the body. This movement is completed in Frame 3, where the left forearm and hand are almost completely extended horizontally, palm up, and the right forearm and hand are extended vertically, at the right of Alice's face. Frame 2 and Frame 3 represent the stroke phase of the gesture and co-occur with the utterance "*per mangiarla*", "to eat her". In Frame 4, at 00:17-18, the hands move towards each other again, however, they do not join together completely. Here, the co-occurring speech is "*con la bocca aperta*", "with the mouth open". The gesture ends in Frame 5, where the hands change position to perform another gesture. As before, The movement of the hands that drift apart, coupled with the co-occurring speech "*per mangiarla con la bocca aperta*" "to eat her with the mouth open", would seem to suggest that the gesture performed by the Alice may refer to the action of opening the mouth, like the one performed by Sylvester in the cartoon, when he opened his mouth in the attempt to eat Tweety.

The semantic content of the iconic gestures in Figure 11 and Figure 12 is quite similar. Alice is describing Sylvester that opens his mouth in the attempt to eat Tweety. From the above analysis, it is visible how the two representations resemble each other. The speed at which gestures are performed, as well as length of the gestures are almost the same (there is about 1 second difference between the two). The placement of the hands is inverted in Figure 11 and Figure 12 (first left up right down, then right up left down). However, this might be due to the positioning of the listener, which was on Alice's left during the English narration and on her right during the Italian one. Moreover, while during the Italian narration Alice's back is touching the backrest of the chair, in the English one the back and the upper body are leaning towards the listener. The gesture space used is very similar in both representations. The arm that moves upwards extends till Alice's head, while the one that moves downwards gets to the level of the speaker's waist. The semantic features of the referent (Sylvester that opens his mouth) included in the iconic gestures appear to be the same. It would seem that the hands and forearms imitate the movement of Sylvester's mouth, that opens and become wider to eat the bird. Moreover, both gestures are performed from an OVPT (observer viewpoint), thus the hands represent an entity in the narration. It would appear, therefore, that both the iconic gesture in the L1 and that in the L2 display similar degrees of iconicity.

The gestures presented above are some examples of how iconicity can exist in degrees. As posited by Perniss and Vigliocco (2014) and Poggi (2008), iconicity is not an all or nothing matter, but can exist in degrees, based on the features included in the iconic gesture. The more semantic features of the referent are represented in the gesture, the more iconic the gesture is. Figure 1 and Figure 2, for example, appear to refer to the same referent, however, the iconic representation in English would appear to include more features compared to that in Italian, which seems more abstract. The iconic representations in Figure 3 and 4, on the contrary, still both referring to the same referent, appear to display the same, or similar, degree of iconicity. The same argument can be made for the gestures in Figure 5 and Figure 6 and in Figure 9 and Figure 10, which, although referring to the same referent, appear to differ in the degrees of iconicity they represent its referent. On the contrary, as for Figure 3 and Figure 4, the gestures in Figure 7 and Figure 8, and in Figure 11 and Figure 12, appear to display similarities in the degree of iconicity they represent its referent.

Discussion

Research on co-speech gesture has suggested that social and cultural forces might have an influence on and affect gesticulations (Efron, 1941). Cross-cultural variation in gesture has led to substantial research in efforts to understand the gesture-speech relationships and the extent to which gestures are associated with specific languages (Efron, 1941; Graham & Argyle, 1975; Kita & Özyürek, 2003; Pika et al., 2006). In bilingual research on frequency variation, as some studies discovered an increase in gesture production when speakers used the L2 compared to their L1 (Marcos, 1979; Gullberg, 1998), it has been hypothesized that matters of proficiency are at play when considering gesture frequency across languages, and in particular that gesture frequency increases during speech production in a weaker language. However, other studies on bilinguals have found an increase in gesture production associated with one particular language (Seto, 2000), which, on the contrary, seems to suggest that gesture production frequency is not a matter of proficiency and may indeed be linked to a specific language. To date, however, whether gesture frequency is associated with specific languages or with proficiency in a language remains somewhat unknown. Examining the same speakers speaking multiple languages, allows to account for idiosyncratic variation during the repetition task, as it is believed that all speakers of a particular language do not gesture in a specific way and different speakers may convey the same meanings in idiosyncratic ways (Goldin-Meadow & McNeill, 2012). This approach may provide further insights into the gesture-language relationship and add to our understanding of how social and cultural forces might affect gesticulations. Thus, the present research investigated the use of gesture by Italian native speakers associated with the speakers' first and second language (in this case English).

To motivate naturalistic speech-gesture production, a storytelling task was designed. Italian native speakers were selected among students at English-speaking universities to make sure they had a working knowledge of English and were able to perform the task in the L2. Participants watched an animated cartoon twice and retold the story to a listener, once in English and once in Italian and the narrations were videotaped. The design of the study is mixed and both quantitative and qualitative analyses were conducted. The first research question asked whether there was a difference in gesture production frequency between English and Italian narrations and whether proficiency plays a role in frequency distribution across languages. To answer it, gestures produced by the participants in the two languages were counted and analyzed. After calculating the mean rate of gesture used during the English and Italian

narrations, a t-test was run to test whether the gesture frequency differed in the two languages. The results show that, despite the rate of gesture was higher in the English narrations compared to the Italian ones, the difference did not reach statistical significance.

When Italian native speakers narrated the cartoon story in their L1 and in their L2, no significant difference was found in the rate of gesture produced in the two languages. In both narrations, the speakers used a considerable amount of gestures (see Table 1 in the Analysis). This is in line with previous studies that suggest that Italians frequently accompany their speech with gesture, and are in this sense a high gesture frequency culture (Kendon, 1992; Efron, 1941; Graham & Argyle, 1975; Cavicchio & Kita, 2013; Wessel-Tolvig & Paggio, 2016; Iverson et al., 2008). Consistent with other findings, the results show that slightly more gestures were produced when the speakers narrated the story in their second language. Gullberg (1998), for example, discovered a significant increase in gesture production when participants (French and Swedish native speakers) performed the task in their L2 (Swedish and French respectively). Moreover, Pika et al. (2006) found that the gesture rate of French–English bilinguals was significantly higher in their L2 (English) compared to their L1 (French). Contrary to the above-mentioned literature, however, in the present research the difference in gesture rate was not significant. The fact that the current data show some disagreement with earlier findings could be due to a number of factors. The task performed in the research conducted by Gullberg required participants to look at and memorize a printed cartoon containing pictures, and then to retell the story in their L1 and L2 to a native speaker of the respective languages. Moreover, the quantitative analysis was conducted on the ratios of gestures per clause. The difference with Pika et al. study could be attributed to differences in the sample size. In the latter research, 30 participants took part in the experiment. Moreover, the disparity in proficiency within the group was rather limited and the speakers were found to be all at near-native proficiency.

Opposite results were presented by studies which found an increase in gesture rate when speakers employ their L1 compared to their L2. The research conducted by Cavicchio and Kita (2013) displays an increase in the use of gesture in participants' first language. In addition, the authors found that when Italian-English bilinguals switched languages, their gesture parameters switched as well and bilinguals gesticulated less in English. Again, differences in the results can be attributed to differences in the methodology. Despite mentioning that some speakers were English and some Italians, the authors considered the English-Italian bilingual group as a whole, without specifying which language bilinguals acquired first, whether they acquired both languages at the same time, or in which country the bilingual participants grew up and lived.

Gregersen et al. (2009) conducted a study on English-Spanish bilinguals that had varying levels of proficiency and found that learners used significantly more gestures in their L1 than in their L2, and this was consistent across proficiency levels. The main factor which might have led to such discrepancy in the finding is attributable to the nature of the task. In the research conducted by Gregersen et al., the participants acted out a role play in their two languages, and thus interacted with each other in a conversation. Moreover, the quantitative analysis was conducted on the average number of gestures per minute.

Given that, although slightly more gestures were produced in English, the frequency variation across English and Italian narrations was not significant, to answer the second part of the research question, participants were subdivided into higher and lower proficiency to see if proficiency had a bearing on frequency. A t-test was run on gesture rate of the English narrations of higher and lower proficiency speakers. A subtle difference was found in the mean gesture rate of the two subgroups, specifically lower proficiency speakers produced more gestures when narrating the story in English compared to higher proficiency speakers. However, again, this difference was not statistically significant. The findings are consistent with Gullberg's (1998) research, which found that French and Swedish lower proficiency speakers produced more gestures overall compared to higher proficiency speakers. Results presented by Gregersen et al. (2009), on the contrary, display disagreement with the current study. The rate of gestures of advanced learners of Spanish was higher than both intermediate and beginning learners.

The fact that slightly more gestures were produced in the L2, appears to suggest that the language spoken, whether the L1 or the L2, might affect gesticulation. A review of previous literature reveals that speakers of multiple languages do not use gestures in the same way across languages. With regards to frequency variation, the participants in this study used more gestures when they performed the task in English, than when they did it in Italian. Despite the fact that Italian is considered a high gesture language and English a low gesture language, more gestures were used by Italian native speakers when performing the task in the L2. This is in line with the idea that gesture frequency is higher in a second language. A further analysis revealed that lower proficiency speakers produced more gestures in English than higher proficiency speakers, hinting that proficiency might be involved in gesture production. However, the reason why gesture rate is commonly higher in the L2 is far from clear. One explanation could be the use of manual gestures by L2 learners to enhance speech. Jungheim (1995) has provided a theoretical framework for 'nonverbal' ability. One of the components of this framework is

nonverbal strategic ability, which involves the compensatory and supportive role of nonverbal behavior, and in particular gestures, in L2. This includes the learner's use of co-speech gestures to compensate for insufficient linguistic knowledge to support or enhance speech. Participants in the study might have increased gesture production in the L2 to support speech for the purpose of communication.

The predominance of gestures in English, however, could also be a subtle reflection of gestural transfer. It has been said already that the difference in rate across L1 and L2 was not significant and in both languages the speakers used a considerable amount of gestures. Similar gesture rate across Italian and English may allow to determine the occurrence of transfer from a high to a low gesture frequency language. Indeed, it could be that the high gesture rate which is frequently associated with Italians influenced gesture production in English and was transferred from the L1 to the L2 as speakers switched language. Previous literature has reported that gestural transfer occurred from a high- to a low-frequency gesture language. Pika et al. (2006) found that the overall gesture rate of French–English bilinguals and English–Spanish bilinguals was higher than the English monolinguals and attributed the results to gestural transfer. In the present study, however, further evidence from a second group of English-Italian bilinguals, and possibly two monolingual groups, is needed to support the claim of gestural transfer.

The results of the research could be further attributed to individual differences in communicative styles. Speakers of multiple languages may indeed use similar gesture repertoires across languages, and this could explain the fact that gesture rate was rather similar in the speakers' L1 and L2 and the difference in the results was not significant. In line with the idea proposed by Efron (1941), cultural and social forces may influence non-verbal behavior and specifically gesticulation. The environment in which people live and the cultural group with which they are associated may have an effect on gesture production. As a consequence, it could be that for bilinguals, cultural factors affect gesture production even when a second language is spoken. As noted in the review of previous literature, there is historical credence to the significance of gestures in Italy given the wide repertoire of gestures used by Italians. Indeed, in the study of gesture and cultures, Italian has been termed a high frequency gesture language. The fact that the participants in the study grew up in Italy and learnt English at school might have had an influence on their non-verbal behavior and their use of gestures in the L2. The cultural environment surrounding the speakers in the experiment and the nature of the gesture models to which they are exposed might influence gestural behavior even when the

speakers are not using their first language. It is possible that high frequency of gesture associated with the Italian culture might translate to high gesture production in a second language and might have resulted in similar gesture rate produced by the speakers across languages. Although somewhat similar to gestural transfer theory, this view is less contingent on the intimate link between a specific language and some characteristic of gesture like frequency, type, and nature of gesticulation, which, to date, has yet to be established.

In essence, multiple theories might explain the result and the fact that, although higher in L2, similar gesture rate is found across languages. The results can be attributed to proficiency in the L2 and the fact that more gestures are usually produced in a speaker's L2, which could be a communicative strategy that the learner employs to enhance and support speech. Or, since the difference was not significant, it could be that gesture rate transferred from the L1, a high gesture frequency language, to the L2, a low gesture frequency language. In addition, individual communicative strategies and cultural influence may further explain the results, as it could be that speakers of multiple languages may use similar gesture repertoires across languages, because the cultural environment in which speakers are immersed might have an effect on their non-verbal behavior. High gesture rate typically associated with Italians might have translated to high gesture rate produced when speaking in English, due to the nature of gestural models they are exposed to and to cultural influence.

Proficiency in a language is in some ways related to gesture production and affects gesticulation somehow. As the quantitative analysis did not provide significant results across speakers' first and second language, participants were subdivided into higher and lower proficiency to see if proficiency influenced frequency across English narrations. Lower proficiency speakers indeed displayed higher gesture rate in their L2 compared to higher proficiency speakers, which gives some support to the theory of proficiency influence. The results, however, were not statistically significant, which raises some questions about the exact influence that proficiency might have on the formulation of gesture. To further investigate the role of proficiency and, more in general, of language in gesture production, an inductive qualitative analysis was conducted on the narrations to investigate whether or not there was any variation in the realization or salience of co-speech gestures across languages. The second research question focused on iconic gesture and asked whether there was a difference in iconic gesture production across languages and whether this difference is contingent on proficiency level. Moreover, if a difference is found between iconic gestures used in Italian and English, the third research question focused on finding where this difference lays.

Various taxonomies and classifications have been ideated to categorize gestures. The present research employed McNeill's (2007), which distinguishes four categories/dimensions of gesture: iconic, metaphoric, deictic, and beat. To answer the second research question, gestures were classified, and only iconic gestures were further investigated. The purpose was to determine whether the gestures produced when narrating the story in the L1 differed from those produced in the L2. A subsidiary corpus was derived from the initial corpus which consisted of 36 iconic gestures produced by six participants, three higher and three lower proficiency speakers. For each participant, three English-Italian pairs of iconic gestures were selected. For the gestures to be selected, it was important that they were performed while describing the same point of the narrative sequence in both Italian and English and that they referred to the same semantic content, in order to allow for a comparison. Interesting and contrasting features were visible in the iconicity of gestures performed by the two subgroups. An inductive qualitative analysis was conducted looking at the dimensions of such representations produced in coordination with the semantics of the utterances. Iconicity was employed as a criterion to study each gesture, by considering the parameters that are iconic in a gesture and that resemble aspects of the referent. Specific attention was paid to temporal and rhythmic components of speech-gesture production, to the gesture space employed, to the semantic features of the referents, and to the phases of gestures that co-occurred with speech production. Two transcripts were constructed, which included screenshots of the gestures during various phases of the production and the verbiage of speech production. One transcript was dedicated to lower proficiency speakers and contained all the instances in the representative sample produced in English and Italian, and the other to higher proficiency speakers. For the Italian narrations, screenshots included a literal and an idiomatic English translation.

The results of the analysis show that when gestures of English and Italian narrations compared, the similarities of gestures across languages are noteworthy. It was common throughout the data set for participants to perform 'similar' iconic gestures at the same point of the narrative sequence in both English and Italian. This would seem to suggest that speakers of multiple languages may indeed use similar gesture repertoires across languages. The most striking observation in the subsidiary corpus, however, is visible when comparing representations produced by higher and lower proficiency speakers. While both subgroups performed similar iconic gestures for similar narrative sequences in both English and Italian, there is a subtle though important difference in the structural unfolding of those gestures, specifically for the lower proficiency participant population. It would appear that the gestures

produced by the latter in their L2 were more iconic than those produced in the L1. As previously discussed, the degree of iconicity in gestures may vary, depending on the features of gestures resembling the semantic features of the meaning they represent. Thus, iconic gestures may display different levels of iconicity. The more features representing the referent, the more iconic the gesture is (Perniss & Vigliocco, 2014; Poggi, 2008).

In the gestures previously analyzed, higher degrees of iconicity were visible in wider movements of the arms and hands, bigger gesture space used, longer gesture duration, speed of gesture, semantic relation of the subject/object/action performed by the character in the cartoon to the gesture. When comparing the co-speech gesture pairs produced by lower proficiency speakers, it appears that nearly all gestures of the English narrations had a longer duration from gesture onset to its conclusion than those of the Italian ones (2-3 seconds, sometimes more). The pairs also differed with regards to the degree they represent their referent and the semantic features of the referent expressed in the gestures. The iconic representations produced in the L2 narrations seem to include more features as opposed to gestures of the Italian narrations, most of which appear to represent fewer features. For example, the gestures in Figure 1 and Figure 2 in the Analysis both seem to be referring to the cartoon scene whereby Tweety was drying off with Sylvester's tongue. The iconic representation produced in the English narration included many semantic features of the referent, for example the manner in which Tweety was drying himself off, the direction of the movement, the part of the body Tweety was drying, the fact that the bird was using both paws to perform the action. Despite the speaker was narrating the same event in Italian, such information was not included in the paired Italian gesture. The space used for the representations differed as well in most of the gestures, with larger space used for gestures produced in the L2, in which the hands and arms perform wider movements, and the elbows are sometimes more detached from the body. However, as opposed to lower proficiency speakers, gestures of higher proficiency speakers in L1 and L2 narrations did not differ to such extent. Overall, they were similar in terms of the semantic features of the referent, gesture timing, and space.

What the analysis reveals is that variation in gesture production appears to align loosely with proficiency levels. A possible explanation for the difference in the degree of iconicity of lower proficiency speakers' gestures could be that they might allocate more communicative salience to the gesture, as a means to accommodate for disfluencies in speech production, despite there might not be evident disfluencies in a particular sentence. The speaker might be attempting to ensure that the information conveyed is as complete as possible, because of their

apprehension in their L2 production, and this might result in high degrees of iconicity. Iconic gestures usually include features like size, shape, manner, perspective. However, the preference for the features to be included in the representation is idiosyncratic and changes from speaker to speaker. As Holler and Bettie (2003) have posited, it is not possible to predict which features will be included, as iconic gestures may serve different kinds of communicative functions, and the communicational demands of a certain situation may lead to variation in the semantic features represented by iconic gestures. It is widely agreed that storytelling is a demanding task and it might be that for less proficient speakers narrating a cartoon story in their L2 is more challenging than performing the task in their L1. The communicational demands of the situation might have led lower proficiency speakers to increase the semantic features represented by iconic gestures, and thus the iconicity of the gesture, as a means to assure the completeness of the propositional content and to facilitate communication. As seen above, one of the components of the theoretical framework for nonverbal ability proposed by Jungheim (1995) is strategic ability. This involves the role of co-speech gestures in compensating for insufficient linguistic knowledge and in supporting and enhancing speech. As proficiency increases, the gestures would appear to carry less communicative load, resorting in lower degrees of iconicity, and the communicative load might be more holistically resting with the spoken language. On a somewhat similar line, Taranger and Coupier (1984) studied the acquisition of French by Moroccan immigrants and found that beginner learners combined oral and gestural elements in their utterances. With time, as proficiency increased, mixed utterances became less frequent and fewer iconic gestures were used to express content. Other studies have reported how iconic gestures might be used by the speaker for communicative intentions. Pika et al. (2006) suggest that a high rate of iconic gesture might increase the recipient's understanding, thus lead to a more sufficient communicative exchange. Cavicchio and Kita (2013) propose that bilinguals might often be in a communicative situation in which some people are weak in one of the two languages, and thus make their gesture more salient to facilitate communication. In addition, Bettie and Shovelton (2000) maintain that iconic gestures accompany important elements of the narrative for the purpose of communication.

Iconic gestures, however, not only serve communication, but might also fulfill cognitive functions. It is well known that speakers gesture even when the listener is not physically present, for example during a phone conversation. Therefore, the function of such gestures might not only be related to communication. One line of thought has suggested that gestures help lightening cognitive load by reducing demands on the speaker's cognitive resources and freeing

cognitive capacity to perform other tasks (Goldin-Meadow, Nusbaum, Kelly & Wagner, 2001). Goldin-Meadow and her colleagues tested this hypothesis experimentally and asked participants to remember a list of letters or words while providing an explanation of how they solved a math problem. More items were remembered when participants gestured during their math explanations than when they did not. The researchers have posited that gesture appeared to save cognitive resources on the explanation task while allowing the allocation of more resources to the memory task. Gesture uses a visuospatial format to convey ideas, which, the authors maintain, enriches the way information is encoded and might allow gesture to facilitate information processing and reduce effort. Similarly, the Information Packaging Hypothesis proposed by Kita (2000) holds that gesture is involved in the conceptual planning of information for speaking and, more specifically, that iconic gestures often occur when the message being described in speech is particularly difficult to chunk into discrete units. “Gestures may help speakers parse a global image into individual parts that can be efficiently organised in the linear structure of speech, and in so doing, reduce cognitive load. Rather than trying to describe an image as a whole, speakers may use representational gestures as a way to break the image down into parts more manageable for speaking, as a way to conceptualise a complicated spatial image in a way conducive to speaking” (Hostetter, Alibali, & Kita, 2007, p. 316). While both hypotheses were made on the basis of quantitative observation, it is possible that the finding that gestures reduce the cognitive load involved during speaking also applies to aspects of iconic gestures different than frequency, and in second language production.

In the present study it was found that iconic gestures produced in English by lower proficiency speakers appear to have higher degrees of iconicity compared to the paired gesture produced in Italian. As proficiency increases, this discrepancy between English-Italian pairs seems to disappear and iconic gestures of higher proficiency speakers appear to display the same degree of iconicity. It could be that the narrative task in the L2 is more cognitively demanding for lower proficiency speakers and that higher degrees of iconicity might help lightening the cognitive load and reducing the burden. The demands of the situation might have led speakers to perform numerous iconic gestures. Since in such gestures the relationship between referent and gesture is clearly evident, speakers, and in particular the lower proficiency subgroup, might have exploited iconic gestures by focusing on the semantic features of a referent or an action in the cartoon, which can be easily depicted and also identified by the listener. As proposed by Hostetter et al. (2007) gestures may help speakers parse a global image into parts more manageable for speaking and in so doing, reduce cognitive load. The visual

information provided by gestures might be of help in focusing speaker's attention on particular spatial or motoric features that need to be described and in organizing it into speech. While this is a plausible explanation, the design of the study does not allow to affirm with certainty that increased degree of iconicity is a result of cognitive demands in the L2 for lower proficiency speakers as this factor has not been controlled for in the experiment. Further research that controls for cognitive demands of the task in the L1 and L2 and across proficiency levels is needed to make this claim.

The present study added to our understanding of how proficiency, and more in general language, might affect gesture. However, it is not free from limitations and improvement can be made to broaden and further support its findings. Increasing the number of participants who took part in the experiment would strengthen the generalizability of the findings and obviate the possible operation of selective factors. Moreover, having a group that presents more varied and diversified linguistic abilities in the L2 would provide additional information about gestures and proficiency in a narrative task. The current research defined two levels of proficiency: higher and lower. It could be that having a bigger number of participants and a more varied sample in terms of L2 proficiency would result in additional information and provide further insights on the behavior of bilinguals performing narrative tasks. Future studies may start from the findings of the present research to explore in more depth this degree of iconicity-level of proficiency duality and what might be the potential pedagogical and diagnostic applications.

A second field of research might investigate the topic cognitively, in addition to the area of cognitive load. It has been noted how the same or similar gestures were found in narrations across languages spoken by the same participant when retelling the same portion of the story. From this it could be inferred that the conceptualization process of a proposition, that is generated by the Conceptualizer in Levelt's (1989) terms, seems to be minutely influenced by the ongoing speech production process. Regardless of the language spoken, there may be a portion that is preprocessing and appears to be unaffected by language. Further research on this topic might provide more insights into first and second language storage cognitively. It would appear that the idiosyncratic manner in which people are gesturing (i.e. the fact that similar gestures occurs in both Italian and English narrations, despite the fact that they are accessing, or attempting to access different lexicons) seems to suggest that those lexicons might be stored in the same place, because we are dealing with a singular proposition which is encoded across language and gesture. Otherwise we would, or we should see different gestures with co-occurring with the proposition. However, more in-depth analysis is needed to arrive to such

conclusions and a more careful planning of the methodology is required to make sure the necessary behavior of participants is elicited from which inferences can be drawn.

A third potential area of research might involve investigating English native speakers whose second language is Italian. This would allow for a comparison of the behavior of this group to the one investigated in the present research. It would then be possible to get insights into the behavior of a low gesture frequency language with regards to gesture production in the speakers' L1 and L2. However, it is also important to investigate Italian and English monolingual groups, in order to determine how gesture frequency varies across the two languages and cultures. In the present research, gesture frequency of Italian native speakers did not decrease when speakers were speaking a low frequency gesture language. It would be interesting to see whether English native speakers would behave in the same way, thus not increasing the frequency of their gestures when speaking Italian. This would provide further evidence of gestural transfer. However, if the opposite behavior is elicited, it would give support to the idea that L2 influence gesture production, regardless of the gestural disposition of a particular culture.

To conclude, the findings seem to suggest that the language spoken, whether a speaker's L1 or L2, appears to influence gesture production somehow. Although not significant, there was a subtle difference in gesture frequency across speakers' first and second languages and more gestures were produced in participants L2. Thus, it has been hypothesized that matters of proficiency are at play when considering gesture frequency across languages. A comparison between English narrations of higher and lower proficiency speakers revealed that lower proficiency speakers produced more gesture compared to higher proficiency speakers, presumably to support and enhance speech. This difference, however, was not statistically significant and therefore, to further investigate the role of proficiency in gesture production, a qualitative analysis was conducted on a subsample of iconic gestures. Very frequently participants performed 'similar' iconic gestures at the same point of the narrative sequence in both English and Italian, which would seem to suggest that speakers of multiple languages may use similar gesture repertoires across languages. However, when comparing representations produced by higher and lower proficiency speakers there is a subtle though important difference in the structural unfolding of those representations. Gestures produced by lower proficiency speakers in their L2 appeared to be more iconic than those produced in the L1 and an increase in the semantic features of the referent included in the gesture, longer gesture duration, speed of gesture, bigger gesture space used seems to translate into higher degrees of iconicity.

Whether cognitively or communicatively, iconic gestures appear to facilitate speech production. High degrees of iconicity might reduce cognitive load for lower proficiency speakers, as the task in a weaker language might be more cognitively demanding. The visual information provided by gestures might be of help in focusing speaker's attention on particular spatial or motoric features that need to be described and in organizing it into speech, as proposed by Hostetter et al. (2007). Or it could be that the communicational demands of the situation might have led lower proficiency speakers to increase the semantic features represented by iconic gestures, and thus the iconicity of the gesture, as a means to assure the completeness of the propositional content and to facilitate communication. Given the exploratory nature of the study, it is somewhat premature to attempt to propose a model to account for the influence of language proficiency in gesture formation. However, further research can depart from the current findings to discover additional circumstances under which the degree of iconicity increases and what are the factors involved in the process.

Conclusion

This research investigated gestures of Italian native speakers performed during narratives in Italian and in English. The foci of the research were three: examining gesture frequency across bilinguals' L1 and L2 while considering proficiency in the L2; qualitatively comparing iconic gestures produced in the two languages, again taking proficiency into account; and, if potential differences were found between iconic gestures used in Italian and English, identifying the nature of these differences. For the first research question, it was found that slightly more gestures were produced in speakers' L2, however, this difference did not reach statistical significance. When Italian native speakers performed the task in English, gesture rate was slightly higher compared to gesture rate in the L1. To investigate the potential role of proficiency in frequency variation, participants were subdivided in higher and lower proficiency and the rate of gesture in English by the two subgroups was analyzed. The lower proficiency population displayed higher gesture rate compared to the higher proficiency subgroup, but again, the difference was not statistically significant.

Higher gesture rate in English, and especially by lower proficiency speakers, seem to suggest that there might be an influence of proficiency in gesture production. However, it is not known why gesture rate might be higher in L2. One explanation could be the use of manual gestures by L2 learners to enhance speech. It has been suggested that gesture might have a compensatory role for insufficient linguistic knowledge and might serve to support or enhance speech. Participants in the study might have increased gesture production in the L2 to support speech for the purpose of communication. However, because the difference was not significant, the results could be also attributed to gestural transfer from the L1, a so-called high gesture frequency language, to the L2, a low gesture frequency language. Lastly, individual communicative strategies and cultural influence may further explain the results. The cultural environment in which speakers are immersed might have an effect on their non-verbal behavior. High gesture rate typically associated with Italians might have translated to high gesture rate produced when speaking in English, due to the nature of gestural models speakers are exposed to and to cultural influence.

Iconic gestures were the focus of the second and third research questions, which asked whether there was a difference in iconic gesture production across English and Italian narrations, and whether this could be attributed to proficiency level. The results of the analysis revealed that it was common throughout the data set for participants to perform 'similar' iconic

gestures at the same point of the narrative sequence in both English and Italian. However, what is striking in the subsidiary corpus is that, when comparing representations produced by higher and lower proficiency speakers, there is an important difference in the structural unfolding of those gestures, specifically for the lower proficiency participant population. It seems that the gestures produced by lower proficiency speakers in English displayed higher degrees of iconicity compared to those produced in Italian. Higher degrees of iconicity were visible in wider movements and bigger gesture space, longer gesture duration, speed of gesture, semantic relation of the referent in the cartoon to the gesture. Gestures of higher proficiency speakers in L1 and L2, however, did not differ to such extent and they were overall similar in terms of the semantic features of the referent, gesture timing, and space.

Whether cognitively or communicatively, iconic gestures would appear to facilitate speech production. As the task in a weaker language might be more cognitively demanding, high degrees of iconicity might have helped in reducing cognitive load for lower proficiency speakers. The visual information provided by gestures might be of help in focusing speaker's attention on particular spatial or motoric features that need to be described and in organizing it into speech (Hostetter et al., 2007). Alternatively, it could be that the communicational demands of the situation might have led lower proficiency speakers to increase the semantic features represented by iconic gestures, and thus the iconicity of the gesture, as a means to assure the completeness of the propositional content and to facilitate communication.

The research added to our understanding of the use of manual gesture by Italian-English bilinguals during a narrative task. It has shown how, when investigating gestures of second language learners, it is important to take into account the level of proficiency within the group, as the use of gesture by advanced and beginning learners might be different, and proficiency might play a role in gesture production. A qualitative analysis of iconic gestures revealed a possible communicative strategy of lower proficiency speakers in L2 narration in real time: higher degrees of iconicity to support and enhance speech. This strategy, however, might have also had a function in lightening the cognitive load of the supposedly cognitive demanding situation. This would appear to suggest that language learners might use gesture strategically in communication, and it would be significant to investigate other potential uses of gestures by L2 learners in interaction, especially across proficiency levels, as this might give further insights into L2 acquisition and development.

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Appendices

English transcription (higher proficiency speakers)

1. I just watched a short episode of a cartoon with Tweety and Sylvester a cat and a bird and it starts in a park where Tweety is having a bath in a fountain and Sylvester is spying on her through newspaper sitting on a bench. Eventually he gets to the fountain and opens his mouth to eat her basically but Tweety use his tongue as a towel and finally discovers is a cat that wants to eat her. So she starts, he or she I don't know because in Italian it's a she but maybe it's a he, I don't know. Starts running and find mhh protection in a lady sitting on a bench supposedly a nanny who's taking care of a baby, I don't know, and she protects the bird and hits Sylvester with an umbrella. So the new attempt is again Sylvester dressing up as the baby, that the nanny is taking care of, and asking the nanny to play with the bird, the nanny gives the bird to Sylvester that tries to eat it of course again and the nanny discovers it and beats him on his butt and mhh even Tweety beats him on his butt in the end. So mhh after this, new scene still at the park there is this bulldog, dog walking with his mhh man human I don't know, and Tweety is mhh following him to be protected from the dog, and so eventually they start – Sylvester is following it again and again and again until he bumps into the dog and take his collar and pretends to be the dog but Tweety eventually discovers it and starts running even faster and flies on – to get protection flies on a building and to catch her in that moment Sylvester use a bubble gum to fly on the window and Tweety breaks the first bubble gum with mhh I don't know this small thing you use to sew, so he falls down, but he you know puts air in another bubble gum so comes up again and Tweety gives him this huge piece of iron that is very heavy, I don't know its name in English, and so he falls down again. But then he threw this piece of iron away and so flies on and in the end Tweety just like you know use this tool I don't know to do it does like this to make him fall and prepares mhh a pillow for his falling you know but in the end in the pillow there was this piece of iron so Sylvester hits it and he get hurt, gets hurts. And yeah another scene there – Sylvester is hiding behind a wall with a tool, to kick Tweety but instead is the bulldog so he has to run away because it's the bulldog and he's pretty angry. And I think fi- final scene I would say, I don't remember it anymore, there is Sylvester dressing up as a tree to catch Tweety, so he prepares a fake nest and whistles as a tweets, as a bird to catch the bird, and Tweety arrives but in the end even the bulldog arrives, because he mhh probably he would like to pee on the tree, we don't know, but eventually discovers that there is a cat inside and starts following him, chasing him and that's basically how it ends. And there is, in the end there is this phone call Tweety is calling someone, but I didn't understand what she said.
2. We are in a park, and Tweet is is having a bath in a fountain, in a little fountain. Then the cat is hiding on a bench, hiding behind the newspaper, and gets closer and closer, finally approaches tries to to eat the the bird. And then the bird starts to use the tongue of the cat as a as a towel to to dry itself, and it finally notices that it's the cat's tongue, and then runs away, flies away. Mhh and then they're they're chasing each other in the park and finally the the bird gets shelter behind the on the neck of a of a lady and screams to the lady that the cat is running after after him. And mhh and then the lady beats the cat and shames the cat because he is trying to eat this poor little bird. Mhh yeah then then the cat comes back and the lady has has a baby with her and the baby is on in in a trolley. And while the lady is reading the book, the cat steals the trolley and dre- I don't know what does with the baby but dresses in the in the clothes of the baby, and then pretend to be the baby like screams that he wants a toy to play with, and the lady takes the the bird, and without thinking about it gives it to the to the cat, and the cats eats, cat finally eats it, but the lady, without noticing that it's a cat just takes it and beats it on on his mhh butt, saying that it should not eat toys and and , and yeah, and then the bird is free again. And then they mhh and then the the bird is is is hiding on top of the head of the cat and it's saying like "ah he's never gonna find me here" and the cat is is building like a trap for the bird, a trap with some corn, some corn as as to attract the bird, and but then the bird is looking at all of this and say "ah you stupid cat you you don't – what are you

doing over there you don't notice". And then the the cat looks up and notice and of course he beats himself with a stick on the - his head and the bird flies away. Mhh and it flies away mhh looking for shelter like on on a big yes somehow they're out of the park now and the bird find shelter on a window of of a building, like high, and the cat to reach that height the cat takes like a bubble out of his pocket, and chews the bubble – the the chewing gum sorry, makes a bubble and somehow flies up with this pink bubble. And when he reaches the bird the bird breaks the bubble with with with a stick or something. The cat gets down again. He makes another bubble and flies back and this time the the the bird gives him like a heavy thing and the cat falls down again and yeah then the cat l- drops this heavy thing at the very last moment and he he's able to to fly back. Mhh but this time the bird breaks his bubble and he is flying up, too up and the bird breaks his bubble with with with yeah with this object to to throw little stones. Mhh and he's saying like "oh I'm gonna save you with the pillow" but actually in the pillow there's another piece of iron, and then the cat smashes itself on this iron. And and the cat yeah is totally destroyed and flat and yeah. Mhh yes so then we're f- back in the park and the the bird is is mhh safe because there is a big dog, the big hunt dog, that is walking mhh on a leash and then the bird walks side by side to this dog, because he knows that the cat is not gonna come close. Mhh yeah the cat somehow manages to to to to get the place of the of the dog gets in the leash, cra- they crash and at the end the cat is on the leash, and and then they they're chasing each other again and the cat is super scared of this dog, and mhh and at some point he he he's waiting behind a corner with with this with a digger mhh and waiting for the bird, yeah in this corner, and at some point he notices something and he smashes this digger, but he noticed that he he he crashed onto the dog, and he's running away from the dog. Mhh yeah so these sequences are like in the park, in the city, and at the end we're back in the park and the the bird is still with the lady that is reading a book, and mhh and somehow the baby's back, and the dog the cat is this time he's dressed like a like a tree so it has like a tree all around his body and some leaves on his head and it is holding a nest to attract the bird. And he succeed, the bird goes there, but again this big hunt dog appears and he mhh he wants to do something with the with the with with the mhh with the tree that is the cat, and then he notices that it's the cat and then they're chasing and the bird is safe. And the dog is chasing the cat at the end. And the bird goes on some phone to I think I don't understand what the bird says but I think he's saying something like "hey police there is a cat that is in danger – take this dog" I guess, something like that.

3. So the cartoon begins with Tweety taking a bath in a fountain in the park and then there is a row of benches with men reading a newspaper and the end of these benches is Sylvester hiding behind a newspaper so he starts approaching to Tweety again hiding behind the newspaper and he's there almost getting Tweety into his mouth, but Tweety is just blindly reaching for something to dry himself so he starts using the tongue as a towel mhh then they start chasing one another around the park, especially there is a point where they're chasing each other around the fountain and at some point they just exchange the order so they are actually running onto each other but they don't realize that. Then Tweety flies on the shoulders of a baby sitter who is there sitting on a bench with a baby and he tells her about Sylvester so once Sylvester gets there she hits him with a with an umbrella telling him to go away so Sylvester takes the baby away from her sort of bicycle and dresses himself up as the baby and starts crying saying that he wants the birdy. so the babysitter gives him the bird Tweety and Sylvester puts him into his mouth. The babysitter sees that and starts sort of slapping Sylvester by staying that the baby shouldn't put stuff in his mouth then there's a change of scenery, Sylvester is placing a trap for Tweety and Tweety actually flies on his head and talks to him while he's setting the trap and Sylvester doesn't realize it and once he does he hits is own head with a baseball bat. Then there's again a change of scenery mhh they're still in the park but there's a dog on a leash and Tweety is walking away next to the dog and Sylvester starts running towards Tweety but actually bumps into the dog and ends up with the leash himself. Tweety then flies on top of a building and Sylvester is at the feet of the building and starts chewing bubble gum and blows a bubble to fly up to the last storey of the building and Tweety pierces the bubble so

Sylvester is going down but takes another bubble gum and again goes up, Tweety puts a weight so that he's going down but at the last second he drops the weight and flies up again and Tweety just throws a rock making the bubble explode. Then Sylvester hides behind a corner thinking that Tweety is coming and tries to hit it with a shovel but instead there's a dog so he actually hits the dog. And then they're back into the park, Sylvester dresses up as a tree trying to approach Tweety also offers him a nest and uses a mhh a bird catcher like the sound of the bird and Tweety is actually believing it he's already in the nest but the dog arrives and sniffs Sylvester so the cartoon ends with the dog chasing Sylvester away and Tweety on the phone.

English transcription (lower proficiency speakers)

1. So the- in this cartoon there is the cat that try to catch a bird you know, and we we see many attempts to, well from the from the cat and... one of them is like the well for for for instance in the first scene of the cartoon we see the bird that is taking a bath in the - in a, in a fountain you know, and this cat is hiding in a - in a bench, sitting in a bench and reading a jour- reading a newspaper sorry. And and and he he try to get closer and closer to the bird, until he arrives to this fountain and try to try to to bite it, you know to eat it – but the but the yeah the bird start to start to run and the cat of course he start to run behind the the bird trying to catch him you know. And there is this scene that they start to run in a circle way and yeah this is the first scene. There are others like – mmmhh for example I think that this is the second one, that the bird try to find a a repair, you know in another bench where is sitting another, well where it is sitting a a lady and, well and the cat when, when the cat see that the bird is is in this bench of course tries to catch it, tries, but the lady defend the the bird, hi- hitting the the cat with the umbrella. Mhh in the – okay this is the second scene. The other one, the, we are always in this bench with this lady and the bird, and Tweety, and the cat Sylvester come dressed, dressed up like a like a baby and he start to complaining about the, like a baby you know, and trying to convince the the lady to give him the the bird, and when the lady do, do it, of course Sylvester try to eat it but the lady – take this bird from from his mouth and start to, I don't know the, I don't know the verb but she starts to – I don't know the verb sorry – but he starts fighting with with yeah with the cat and and scream at him, so like “you don't have to put the, the things in your mo-, the stuff in your mouth” you know, and so the bird is is saved. Then – there is another scene that mhh well always the the cat run behind the the bird trying to catch him of course, but the bird fly up fly up to the to a window in a in a building, you know, and and Sylvester the cat try to eat a bubble gum, bite it and inflate a ball with with with the bubble gum you know, in the way to to reach the the bird in the maybe the fourth of five, or fifth fl - floor, I don't know but, well high. But every time he he he failed because well the Tweety always find a an escape you know, - and yeah this – this scene of the bubble gum is, well the attempts of the of the bubble gum scene is, are three, so for three times Sylvester tried to inflate the to flate the bubble gum ball and tried to catch him, but every every time failed. So the last scene is – well, Sylvester is dressed up like a, like a tree you know and try to to reproduce the sound of the bird to, well in a way that the bird comes to the, comes to him, and he, he do it, but immediately, we we see a a dog that there is a dog that there is in another scene that I forgot to explain you –to say to say to you, but, this dog is close to the tree but it's Sylvester, and try to to do the pee in the, in this tree, and Sylvester defends it itself with with the water in, in some way with the water you know, and – then the the the dog re- realized that the tree is actually the cat so he start to fighting cats and dogs and start to run and the dog sta- start to run behind the behind the cat, so in this case the bird is the bird is safe, and the cartoon ends like this and with this last scene.
2. Okay there is the bird and the cat, the the cartoon, and the bird is always trying to escape from the cat you know and mhh in the first episode the bird is trying to wash his- his- herself, and the cat is reading a newspaper, trying to hide between the people, and then he offers his tongue to the bird for mhh drying up itself, and the bird was like not at all looking because she was washing and take

- took the tongue and tried to dry herself and then she discovered that the the - it was a tongue and not a towel, so escaped from him, she escaped, and mhh – okay and she goes to the caretaker, like they was in a park, so she was with another woman, she she went to that woman and tell - told everything to that woman, that beat the cat, a few times, so the e- the first episode ends like that. After that the cat try again to take the bird dressing the the clothes of a baby, and sitting close to this woman, who was taking care about the bir- the bird, so she asked – he, the cat asked her the bird, because he was beyond the clothes, like he was mhh he was changed, so he looked like a baby and he asked “oh I want to play with the bird, give me the bird, please nguè nguè” and then the bird - and the woman give the bird to the cat, the cat eat suddenly it, but the woman was still looking at the baby, and she said “no, stupid stupid something, stupid cat, you cannot eat the birds, no stupid...” I mean she was still thinking about the, as a baby so the baby was not supposed to eat the bird. So again the cat was beaten and, okay and the second episode finish like that. The third mhh ah yes, the third time the cat tried to prepare a, prepare like a mhh to fraud the the the bird with – oh my god – mhh okay he prepared like a a box was in the floor, the put it like box – with tick for keeping open the box and he put some sweet food under the box so when the bird would come under the box he could simply push down the box and keep the bird. But the bird was perfectly in his, in the top of his head, so there was like, the bird was again smarter than the cat and, when he discovered that the bird was just in his head he tr- mhh he take a tick yes, a stick yes and hit itself, the cat hits itself for keeping the bird. But obviously the bird escaped again and after some running the bird went - fly on the window of a building like this, a tall building, and the cat for trying to keep the bird was breathing in a balloon, do you know big babol, he was breathing in the big babol so make it bigger and bigger so was trying to rise, try to fly somehow and when he was in the similar similar - on the same level of the bird, the bird mhh break the balloon. And the second time he was like continue to breath in the balloon to make again the ball to rising up again, and the second time he gave him a hammer, like a mhh, yes a hammer I think, and so the cat went down again. Then he suddenly let go the hammer and he was rising again but the bird has like – a stone and threw the stone to the balloon so he went down, and on the - on the floor he mistaken a pillow with another hammer under the pillow so again the cat was the st- more stupid of, the stupid of both of both of them. And okay the last story was about mhh oh yes the last one was about the cat was trying to to reproduce the the sound that the bird does when he sing, with the instrument, so he was trying to singing the same as the bird and he was mistaken as a tree and there was like a – a wooden place so the bird comes through him. But there was also the dog, the dog tried as well to mhh to make some, went to the to the to this tree, faken tree, and so the cat was supposed to – the cat tried to keep it keep it away with water so, I don’t remember how it finish, yes so the bird keep this occasion for flying away again. I think it’s enough.

3. As usual, Silvestro is trying to catch Tweety, so they are in a park and Tweety is having a bath in a fountain and Silvestro is hiding himself behind a newspaper, and he try to catch her but she she reach a old babysitter that is sitting next to the fountain and the babysitter try to help her, defending herself by the cat, Silvestro. So he try again, he he wears kids clothes so he looks like a kid and try to to play with the bird, and old babysitter gave – give to him the birds, because she she think that Silvestro is a kid. I’m using the present. And as soon as Silvestro take the birds he try to eat the birds, and the old lady see him and punch him because she doesn’t want that the birds be eaten by the the Silvestro. After a while the birds try to hide herself in - up the – on the head of Silvestro and at the beginning he doesn’t notice that the bird is on her head – his head, but, and then she punch him with a tool. Then she try to to walk with a dog in order to defend herself from the cats, and Silvestro punch the dog dog instead of punching her, and the dog get angry of course. And after a while she fly on the top of a building, high building so Silvestro eat a chewing gum, makes a balloon and he flies, trying to reach her, but for three – he try for three times and every time she she find out a solution to keep the cats away from her. And finally – the first time she bit the balloon, the second time, she she use a tool, and the third time the the cats if I can remember well fly too high and mhhhh yeah and at the end the dog appears again but I can’t remember what

happens. Yes, okay maybe ah okay, with the cat, Silvestro take a tool like the tool people use for move the ground, I don't know the English word to say that, and he try to punch the – to beat the birds, but instead of beating the birds he beats the dog, so a fight between the dog and the cat starts, and at the end the the birds that is safe, of course, try to call someone, tries to.

Italian transcription (higher proficiency speakers)

1. Allora, cartone di Titti e Silvestro. Partiamo con ambientazione parco, c'è Titti che si fa la doccia in una, il bagno in una fontana, e Silvestro che la spia da un giornale, e le si avvicina, le si avvicina, finché arriva nella fontana per mangiarla con la bocca aperta. Titti si asciuga con la sua lingua, fino a che decide che, fino a che capisce che è il gatto, e quindi inizia a scappare. Iniziano a scappare insomma solite cose alla Titti e Silvestro, e finché Titti non vede, cioè che non incontrano questa tata che è al parco a prendersi cura di un bambino, e che aiuta Titti picchiando con un ombrello Silvestro, e questa è, questa prima parte. Dopo di che Silvestro decide di travestirsi da bambino, bambino a cui la tata sta, sta ac-, cui la tata sta accudendo, e insomma le chiede di giocare con il l'uccellino e lo mangia. La tata se ne accorge e lo sculaccia e gli dice che non si mangiano le cose. E lo sculaccia anche Titti. Poi mhh dopo di che ah, Titti si nasconde su un albero e dall'albero salta sulla testa di Silvestro, quindi si nasconde lì e Silvestro non la vede, prepara una trappola che non funziona, e infine Silvestro si dà una una una mazzata in testa, praticamente per uccidere Titti. E continuano a scappare finché sempre nel parco non incontrano un bulldog, con un padr- cioè il cane con un padrone che camminano, quindi Titti si fa scudo con il cane, finché, correndo, Silvestro non prende il posto del cane e cerca di rimangiarla, un'ulteriore volta. Scappano, scappano, scappano, Titti vola su un palazzo, e e Silvestro cerca di raggiungerla mangiando una gomma, quindi questa gomma, gonfia questa gomma per salire su. Titti, buca la prima gomma con uno spillo, Silvestro ne mangia un'altra, Titti gli butta un'incudine, Silvestro cade giù, poi butta via quest'incudine e schizza via nel cielo, e Titti con un colpo di fionda lo fa ricascare a terra, dove gli prepara un simpatico cuscino per l'atterraggio, ma all'interno del quale c'è un'incudine, quindi Silvestro si fa male. E poi mhh credo che ritorniamo al parco, ah c'è una parte in cui Silvestro dà una palata dietro un angolo pensando di prendere Titti, invece prende il bulldog, e quindi ricontinua questa fuga infinita. E poi c'è la parte del del parco dove Silvestro si traveste da albero e con un aggeggio finge il suono degli uccelli per attirare Titti che si ferma nel nido, però arriva anche il bulldog, che prende l'albero insomma per un pisciatoio e quando si accorge che l'albero è Silvestro lo rincorre, e il tutto finisce con Titti che chiama credo il pet shop, quindi il negozio di animali per dire cose che non ho capito.
2. Ci sono Titti e Silvestro in un parco e Titti si sta facendo il bagno in una fontana, una fontana di pietra, in mezzo al parco e canta, e e Silvestro si nasconde fra degli fra dei signori che leggono il giornale, dietro a un giornale e aspetta per cercare di mangiarselo, si avvicina e Titti si accorge che che è Silvestro, scappa e si inseguono per un pochino, all'inizio. Si inseguono intorno a una fontana rotonda e a un certo punto Titti si nasconde dietro una signora che sta leggendo un libro e che c'ha un bambino piccolo vicino, un neonato. E la signora in qualche modo Titti stri- si fa capire dalla signora, facendo dei versi che c'è il gatto che lo sta cercando di di di di uccidere. Allora la signora appena Silvestro si avvicina, prende un ombrello e glielo glielo dà in testa e lo lo lo insulta e lo umilia un pochino. Allora Silvestro se ne va e deve pensare a come a come avvicinarsi. Titti sta sempre sulla spalla della signora che legge il libro, Silvestro prende, mentre la signora sta lì intenta a leggere, tipo non so, ridacchia, si distrae, Silvestro prende il bambino nella culla e e e non so che fa del bambino ma si veste come il neonato, si prende ne prende i vestiti, si mette nella culla e com- e comincia a strillare facendo finta di essere il neonato che vuole un giocattolo. Allora la signora acchiappa Titti che sta qui sulla spalla e glielo dà, senza pensarci, e lui però se lo mangia, chiaramente. La signora però lo vede, e dice, senza riconoscere che è un gatto, gli dice però "quante volte ti devo dire di non mangiare i giocattoli?" così gli dà delle botte sul sedere, e allora il gatto sputa Titti, che pure prende una spranga e gliela dà sul sedere così per punirlo. Titti poi cerca di proteggersi camminando vicino a un grosso cane, un grosso bulldog che sta al guinzaglio, e

camminandogli vicino Silvestro ha paura e si nasconde non vuole andare -non vuole corrergli dietro. A un certo punto il bulldog e Titti si separano per un istante, allora Silvestro corre, ma dopo, mentre gli sta correndo addosso, il cane ritorna in traiettoria, e lo, Silvestro lo centra in pieno da dietro, e finisce al posto del al posto del cane, e cerca di di di far finta di essere il cane sta volta, per avvicinarsi più possibile a Titti, ma Titti scappa anche 'sta volta, scappa scappa in cima a un scappa in cima a un palazzo, volando, un grattacielo mentre escono dal parco scappa su un grattacielo. E sta volta Silvestro si inventa che si mangia una una big babol, una gomma, fa un pallone e va su. Titti una volta glielo buca con l'ago, una volta gli dà un'incudine in mano, insomma lo fa cascare ogni volta. E alla fine Silvestro cade malissimo su un cuscino, Titti gli mette sotto un cuscino, ma in realtà dentro c'è un'incudine, per cui si spappola al suolo. Dopo di che sempre in città cerca di aspettare Titti dietro un angolo con una vanga in mano per cercare di schiacciarlo, ma invece schiaccia la testa del cane, il solito bulldog di prima che quindi lo insegue di nuovo. Ah poi cerca anche di di di preparare una trappola per Titti dentro al parco, una trappola di queste a scatto, con un'esca, del cibo, ma ma Titti si mette sulla sua testa per cui lui è troppo stupido per rendersi conto che sta sulla sulla propria testa e e e insomma quando se ne accorge che sta là sopra, si dà un si dà una una una botta clamorosa con una con una clava. E in finale Titti s'è di nuovo riparato da questa signora che continua a leggere 'sto libro col bambino, e Silvestro come ultima strategia si si si nasconde, si veste dentro, si mette dentro un tronco di un albero e si si mette delle foglie in testa, insomma tiene un nido in mano per attirarlo con un uccello finto di questi che fanno i suoni, gli fa un suono di richiamo da uccello, e quando finalmente ce l'ha lì nel nido arriva di nuovo il bulldog grigio che è interessato all'albero, insomma, sta lì tutto curioso, e Silvestro infastidito che con la mano prende una pistola ad acqua e gli spara l'acqua in faccia, e il bulldog impazzisce, va su tutte le furie, finisce che si inseguono per la città e Titti che chiama la poli- chiama non so se la polizia o insomma, o chiama l'accalappia cani per salvare Silvestro.

3. Il cartone inizia in un parco, Titti è in una fontana e si sta lavando, e sta cantando, e c'è una fila di panchine con tutti uomini che leggono il giornale e l'ultimo di questi uomini è Silvestro, e ha i buchi dagli occhi – ha i buchi nel giornale per gli occhi per vedere e pian piano nascondendosi dietro il giornale si avvicina a Titti e sta per metterlo in bocca ma Titti si deve asciugare quindi non vede e prende la lingua di Silvestro per iniziare ad asciugarsi, e quando si accorge che è Silvestro vola via e vola sulla spalla di una donna seduta sulla panchina. Questa donna è vestita di blu e ha un grembiule bianco ed è lì con una bambina su un triciclo e Titti cerca di spiegarle che Silvestro lo vuole mangiare e allora quando Silvestro si avvicina la donna lo manda via e gli dice di non prendersela con con un volatile. E allora Silvestro si si traveste da bambina sempre sul triciclo e si avvicina alla donna piangendo dicendo che vuole che vuole l'uccello, allora la la babysitter penso che sia, prende prende Titti e lo dà alla bambina che in realtà è Silvestro. Allora Silvestro lo mette in bocca ma la donna lo sgrida perché le ha detto tante volte di non mettersi le cose in bocca, quindi la - prende Silvestro e se lo mette sulle ginocchia e comincia a sculacciarlo finché sputa Titti. Mhh Titti corre via e comincia a camminare di fianco ad un cane che ha il guinza- che ha il guinzaglio e Silvestro comincia a rincorrerlo, però non riesce a fermarsi in tempo, spinge il cane e rie- e arriva lui ad avere il guinzaglio, quindi cammina comunque di fianco a Titti finché Titti se ne accorge e corrono via. Titti vola in cima ad un edificio e Silvestro è a terra, quindi comincia a masticare una gomma e gofa una bolla con la con la gomma e vola in cima, solo che Titti gli fa scoppiare la bolla quindi precipita. A metà strada inizia a soffiare ancora quindi la gomma si si gonfia e arriva di nuovo in cima, e Titti gli attacca un peso, così poi cade ancora più in basso, e – Silvestro si nasconde dietro un angolo pensando che Titti sia dietro l'angolo e cerca di colpirlo con un badile ma in realtà sul badile c'è la sagoma della faccia del cane, quindi Silvestro corre via e ritornano nel parco dove Titti è sempre sulla spalla della babysitter, e mhh –a questo punto non mi ricordo cosa succede - ah si, Silvestro si traveste da albero, e comincia ad usare un richiamo per uccelli e avvicina un nido finto a Titti, Titti ci casca e va nel nido, e solo che a quel punto arriva il cane che comincia ad annusare Silvestro, Silvestro lo spruzza con dell'acqua però il cane inizia a rincorrerlo, al che Titti scappa, e penso sia la fine.

Italian transcription (lower proficiency speakers)

1. Allora, il cartone inizia con una prima scena dove siamo in un parco ehh e c'è Titti che fa il bagno in una mhh fontana mhh e in una panchina vicino a questa fontana ci sta Sil- c'è il gatto c'è Silvestro che mhh leggendo un giornale cerca di nascondersi e di non farsi vedere ovviamente ehm e a mano a mano si avvicina sempre di più alla fontana ovviamente con l'intento di andare a prendere Titti. A poco a poco si avvicina tant'è che a un certo punto mentre è lì, mentre sono uno - c'è diciamo uno accanto all'altro nella fontana Titti si accorge che c'è comunque questo cioè che c'è il gatto, che c'è Silvestro e cominciano a cominciano a rincorrersi e c'è questa scena in cui ci sta un adesso mi sfugge, un un un qualcosa in mezzo ma comunque corrono in modo circolare, come una classica scena in cui si, cioè si, vanno prima uno dietro l'altro e poi vanno all'inverso insomma. Corrono, corrono, corrono fino a quando sempre in questo parco Titti va a nascondersi cioè, anzi più che nascondersi più che nascondersi a cercare un, cioè riparo in una panchina dove c'è seduta una donna con con la mhh con la figlia. Questa donna sta leggendo un libro e Titti si mette lì accanto a lei e Silvestro corre cercando sempre di prendere Titti, però la donna lo ferma e inizia a picchiarlo dicendogli che dovrebbe ve- dovrebbe vergognarsi perché cioè non si dovrebbero attaccare diciamo le le povere creature indifese o una o una cosa cioè così. Tant'è che comunque Silvestro nota che che la figlia, che la figlia di questa donna è in un è in – è seduta in un triciclo diciamo, accanto a accanto alla panchina, quindi vediamo che nella scena su- dopo, Silvestro si traveste da bambina e e diciamo scambia diciamo i scambia tipo la la bambina con con sé stesso, e inizia a lamentarsi, inizia a piangere e frignare dicendo che vuole Titti, l'uccellino. Mhh successivamente la mamma diciamo, stufata dopo un poco glielo dà, ovviamente non accorgendosi che sua figlia non è sua figlia ma è Silvestro vestito da sua figlia, ehm e Silvestro prende diciamo Titti in mano con una risata malefica e e tenta di mangiarlo. Ma una volta messo in bocca, la mamma lo prende e inizia a sculacciarlo e e a rimproverarlo, dicendogli che non si dovrebbero mettere le cose in bocca e mhh e subito dopo Titti fa fa lo stesso lo mhh sculaccia però con una con un con un pezzo di legno, dicendogli le stesse cose, "non devi metterti le cose in bocca, soprattutto se sono io". Dopo di che abbiamo una scena, sempre in questo parco, dove c'è un signore che sta passeggiando il cane e mhh diciamo Titti mhh trova rifugio in questo in questo cane perché si affianca a lui, solo che a un certo punto la strada è come un bivio, solo che Titti va dritto, e il cane col col signore vanno a sinistra, dove c'è una una piccola curva non – cioè comunque le strade dopo un poco vanno a a ricongiungersi. Quindi Silvestro non non pensando che che poi comunque le strade avr- andrebbero a unirsi di nuovo, comincia a rincorrerlo di nuovo, solo che a un certo punto sbatte contro il cane e il cane comincia a rincorrerlo. Dopo un – sì, dopo di che mhh si ha una scena in cui Silvestro prova a prova a costruire una una trappola per Titti appunto, e si nasconde dietro un albero, Titti è sopra un ramo di di quest' albero e cerca di nascondersi sopra la testa di Silvestro. Dopo un breve dialogo, non mi ricordo bene cosa, Silvestro poi si accorge che Titti è sopra la testa, cominciano a rincorrersi di nuovo, corrono corrono corrono fino a quando arrivano in un in un palazzo, Titti comincia a volare, e trova riparo mhh cioè diciamo in una in una finestra in un piano comunque alto di questo palazzo qui. Silvestro cosa fa, prende una bubble gum, comincia a masticare e gonfia un palloncino, per raggiungere Titti. Arrivato in cima, cioè in cima mhh comunque nel nel piano dove c'era Titti, subito Titti prende uno s- uno spillo e buca il il palloncino, facendo precipitare il gatto. Il gatto che subito dopo mentre precipita ne prende un'altra di bubble gum, mastica mastica mastica, ne gonfia un altro e vola di nuovo verso Titti. Questa volta però Titti questa volta Titti gli da un'in- un'incudine e quindi il gatto comincia a precipitare, solo che poi mhh mollando questa quest- cioè mollando quest'incudine, diciamo prende prende una una forza strana quindi vola verso l'alto, cioè a una velocità stratosferica, e Titti per la per la terza volta lo fa cadere, questa volta però con una fionda, cioè lui tira questa fionda in alto e si vede il palloncino che scoppia e e Silvestro che cade di nuovo precipitando al suolo, solo che Titti dice a un certo punto tornando al suolo fa "ti salverò mio mio gatto" eccetera eccetera, mettendo un mhh cuscino a a terra facendolo atterrare in questo cuscino, solo che quando Silvestro atterra e cade cioè, att- e si

appoggia su questo cuscino ma cade comunque rovinosamente, invece di essere un normale cuscino con le piume, è un cuscino con dentro un'altra incudine, quindi si fa malissimo, si si spiaccia al suolo e e niente. Poi l'ultima scena mhh in cui sempre Si- c'è Silvestro cioè siamo in questo parco mhh Titti è di nuovo mhh insieme alla signora di prima e Silvestro si traveste da da albero. Mhh appunto travestendosi da da albero e con un e con un fischiello diciamo particolare fa un richiamo per uccelli e attirando Titti a a sé, attirando Titti nel cioè, nel nel nel nel – braccio dove dove c'era un nido. Titti va in questo nido e e cioè Silvestro convinto di averlo in pugno cerca di di cerca di prenderlo però a un certo punto arriva il cane che vorrebbe fare pipì nel nel nel tronco dell'albero, però Silvestro mhh con un con la con la zampa prende una cioè prende una pistola ad acqua, non si sa da dove, prende questa pistola ad acqua e lo spruzza. Questo cane allora, cioè il cane capisce che è l'albero che è che è il gatto, cioè capisce che invece di essere un albero è Silvestro vestito da albero e cominciano a a e il cane comincia a rincorrerlo dietro. E niente il cartone finisce così.

2. Okay, ci sono diverse storie, una conseguente all'altra, sempre Titti che vuole essere mhh sempre Silvestro che vuole mangiare Titti, per cui diciamo che il cartone inizia quando Titti si sta lavando nella fontana, e Silvestro si prepara con la lingua vicino alla fontana per - così quando Sil-, Titti non vede perché s- perché ha gli occhi bagnati, Silvestro gli offre la lingua per pulirsi, l'altra si asciuga, poi si accorge che è la lingua e quindi scappa. Silvestro la rincorre ma lei si rifugia nel, dalla mhh governante, da una passante che è nel giardino, nel parco in cu- nel quale stanno, nel quale c'è anche la fontana e la gover- questa donna diciamo mhh bastona il cane- il gatto, bastona il gatto che così non non la può più mangiare. Dopo di che, Silvestro tenta di travestirsi da da bambina e quindi fa i capricci per- chiede Titti pe- per per giocare, e la donna gli dà gliela dà, gli dà Titti, perché pensa che sia la bambina a chiederlo, e invece la bambina se lo mangia, però a quel punto la donna capisce che la bambina non dovrebbe mangiare l'uccello, e mhh e gli dice che non deve non deve mangiare l'uccello, perché boh, probabilmente è come se fosse una cosa sporca, e ehm - mhh e quindi niente, la sculaccia, sculaccia la la bambina, e quindi anche questa questa - questo tentativo non ha funzionato. Allora Titti sc- scappa verso mhh scappa con un cane, col cane e e Silvestro mhh riesce a isolarla dal cane in qualche modo e poi Titti si va a rifugiare su un palazzo, una finestra di un palazzo, e in pratica vola, però il gatto non può volare, per cui per raggiungere la finestra del palazzo dove si è rifugiata Titti, deve gonfiare un big babol, e salire fino al suo livello, ma Titti poi gli dà un martello, un'incudine, e quindi il gatto scende rapidamente fino al suolo, poi si rende conto che potrebbe lasciare l'incudine perché gliel'ha semplicemente data in mano, lo lascia e mhh ti- e - e Titti no e e quindi ritorna a salire. Titti a quel punto rompe il big babol con un con una pietra che gli lancia con una fionda, e il gatto finisce per terra, e invece di mettergli - gli vorrebbe mettere qualcosa di soffice, si vede che gli mette un cuscino per terra in modo che quando cade non si faccia male, ma sotto il cuscino c'è di nuovo l'incudine, quindi il gatto si fa male lo stesso. L'ultimo tentativo di Silvestro per mangiarsi il - l'uccello è quello di travestirsi da albero, ed avere - e canticchiare, con uno strumento canticchia il verso del - dell'uccellino e mhh l'uccellino ci casca, va lì nel - sull'albero nel nido che c'è sull'albero che in pratica è il gatto, però arriva anche il cane che vorrebbe probabilmente fare la pipì sull'albero e mhh e Silvestro per allontanare il cane gli tira dell'acqua e quindi il cane si arrabbia si rende conto, e inizia a rincorrere il il gatto finché finisce la storia così.
3. Il cartone è sulle solite avventure tra Titti e Gatto Silvestro. La scena inizia che si apre in un parco, Titti sta facendo il bagno e Gatto Silvestro la vede e tenta di di mangiarsela come sempre. E allora lei cerca di difendersi perché praticamente c'è una babysitter nel parco che sta guardando un bambino o una bambina, una bambina, e quindi si nasconde dietro la babysitter che al- la aiuta contro il gatto. Ma il gatto ci riprova di nuovo, e prende i vestiti, ruba i vestiti della bambina, si traveste da bambina, inizia a giocare con con l'uccellino, con Titti e lo mangia, in realtà non lo mangia lo mette in bocca. La babysitter tempestivamente riesce a a guardare la scena e quindi riesce a salvare l'uccellino, credendo che la bambina abbia ingoiato l'uccellino, e e quindi mhh l'uccellino poi si nasconde ah sempre nel parco cerca di difendersi facendosi aiutare da un cane,

Gatto Silvestro prende il posto del cane e però non riesce comunque ad aggredire l'uccellino. Altra scena importante, l'uccellino scappa sopra un palazzo e mhh il gatto, Gatto Silvestro ingoia, mangia un chewing gum, una chewing gum e fa, crea un un palloncino e riesce a volare verso l'alto e fa questo tentativo per tre volte. La prima volta Titti con un ago riesce a sgonfiare, a scoppiare il palloncino e quindi Gatto Silvestro cade giù dal palazzo. Riprova una seconda volta e la seconda volta lei colpisce in palloncino con un'incudine, e quindi Gatto Silvestro di nuovo va giù. E la terza volta con una fionda, praticamente. E e riesce comunque a salvarsi, scappano. Scappa dal palazzo e mhh mi sembra che per l'ultima volta ah c'è un altro episodio di Titti che si mette sulla testa e quando Gatto Silvestro se ne accorge, tenta di colpire Titti sulla testa, ma colpisce sé stesso praticamente, con un bastone. E altro altra altra scena, Titti che mhh si nasconde sempre chiede aiuto al cane, ah no, Gatto Silvestro che tenta di colpire Titti con una pala, ma invece di colpire Titti colpisce Gatto Silv- il cane che quindi aggredisce il gatto. E ultima scena il gatto e il cane che se ne vanno, cioè il gatto che cerca di salvarsi dal cane perché il cane scopre che il gatto si era nascosto dentro un tronco e perché voleva richiamare Titti con un fischietto, un fischietto che riproduce il suono degli uccellini. Quindi Gatto Silvestro si traveste da albero, prende questo fischietto che è il fischietto che si usa per richiamare gli uccellini perché produce il suono degli uccellini, Titti va e però fortunatamente il cane si accorge che dentro il tronco c'è Gatto Silvestro e quindi lo lo inizia ad inseguire e Titti si salva e fa questa chiamata, non ho capito chi chiama. Il cartone si conclude così, finisce così.

English literal translation of Italian transcription (higher proficiency speakers)

1. So, cartoon of Tweety and Sylvester. We start with location park, there's Tweety that herself makes the shower in a, the bath in a fountain, and Sylvester that her spies from a newspaper, and to her moves close, to her moves close, until (he) arrives in the fountain to eat her with the mouth open. Tweety herself dries with his tongue, until (she) decides that, until (she) understands that (it) is the cat, and so (she) starts to run. (They) start to run, basically usual stuff of Tweety and Sylvester, until Tweety sees, I mean until (they) meet this nanny that is at the park taking care of a child, and that helps Tweety hitting with an umbrella Sylvester, and this is, this first part. After that Sylvester decides to disguise himself as baby, baby to which the nanny is, is lo-, which the nanny is looking after, and basically (he) her asks to play with the the little bird and (he) it eats. The nanny of it realizes and him spansks and him tells that you don't eat the stuff. And him spansks also Tweety. Then mhh after that ah, Tweety herself hides on a tree and from the tree (she) jumps on the head of Sylvester, so (she) herself hides there and Sylvester doesn't see her, (he) prepares a trap that doesn't work and eventually Sylvester himself gives a a a bump with the stick on the head, basically to kill Tweety. And (they) keep running until, still in the park (they) meet a bulldog, with an ow- I mean the dog with an owner that are walking, so Tweety herself shield with the dog, until, running, Sylvester takes the place of the dog and tries to re-eat her, once again. (They) run, run, run, Tweety flies on a building, and and Sylvester tries to reach her eating a chewing gum, so this chewing gum, (he) inflates this chewing gum to go up. Tweety pierces the first gum with a pin, Sylvester eats another one, Tweety him throws an anvil, Sylvester falls down, then (he) throws away this anvil and squirts up in the sky, and Tweety, with a shot of slingshot him makes re-fall on the ground, where (she) him prepares a nice pillow for the landing, but inside of which there's an anvil, so Sylvester gets hurt. And then mhh, I think we return to the park, ah there's a part in which Sylvester gives a bump with a shovel behind a corner thinking to take Tweety, instead (he) takes the bulldog, and so re-continue this escape endless. And then there's the part of the of the park where Sylvester disguises himself as tree and with a gadget fakes the sound of the birds to attract Tweety, that stops into the nest, but arrives also the bulldog, that takes the tree for a urinal and when (he) realizes that the tree is Sylvester, (he) chases him, and the whole ends with Tweety that calls (I) think the *pet shop*, so the pet shop to say stuff that (I) didn't understand.

2. There are Tweety and Sylvester in a park and Tweety is making the bath in a fountain, a fountain of stone, in the middle of the park and sings, and and Sylvester himself hides among some among some men that read the newspaper, behind a newspaper and waits to try to eat him, (he) gets close and Tweety realizes that that (it) is Sylvester, (he) runs and (they) each other chase for a little while, at the beginning. (they) each other chase around a a fountain round and at some point Tweety hides behind a woman that is reading a book and that has a baby small close, a newborn. And the woman somehow Tweety scr- makes himself understood from the woman, making some cries that there is the cat that him is trying to to to kill. So the woman as soon as Sylvester gets close takes an umbrella and it gives him it gives him in the head and him him him insults and him humiliates a little. So Sylvester goes away and has to think about how to get closer. Tweety is always on the shoulder of the woman that reads the book, Sylvester takes, while the woman is there focused on reading, like I don't know, chuckles, gets distracted, Sylvester takes the baby in the carriage and and and (I) don't know what (he) does with the baby but dresses up as the newborn, (he) himself takes the clothes, himself puts in the carriage and sta- and starts to scream pretending to be the newborn that wants a toy. So the woman grabs Tweety that is here on the shoulder and him he gives, without thinking, and him but eats it, clearly. The woman but him sees, and says, without recognizing that it is a cat, (she) him tells but "how many times do I have to tell you not to eat toys?" so (she) him gives some spanks on the butt, and so the cat spits Tweety, that also takes a bar and him it gives on the butt so to punish him. Tweety then tries to protect himself walking by a big dog, a bulldog that is at the leash, and walking by him Sylvester is afraid and himself hides doesn't want to go- doesn't want to run behind him. At some point the bulldog and Tweety separate for a moment, so Sylvester run, but then, while (he) is running after him, the dog returns in trajectory, and (he) him, Sylvester (him) hits in full from the back, and ends up at the place of the dog, and tries to to to pretend to be the dog this time, to get close as much as possible to Tweety, but Tweety runs also this time, runs runs on the top of a, runs on the top of a building, flying, a skyscraper while (they) go out of the park, (he) runs on a skyscraper. And this time Sylvester invents that (he) eats a a big babol, a chewing gum, makes a balloon and goes up. Tweety one time him it pierces with the needle, one time him gives an anvil in the hand, basically (he) him makes fall every time. And at the end Sylvester falls badly on a pillow, Tweety him puts below a pillow, but actually inside there is an anvil, therefore he smashes into the ground. After that, always in the city (he) tries to wait Tweety behind a corner with a spade in the hand to try to smash him, but instead (he) smashes the head of the dog, the usual bulldog of before that so him follows again. Ah then tries also to to to make a trap for Tweety inside the park, a trap of these springing, with a bait, some food, but but Tweety himself puts on his head therefore he is too stupid to realizes that (he) is on the on the own head and and and basically when he realizes that (he) is up there, himself gives a himself gives a a a bump clamorous with a with a cudgel. And finally Tweety again has found shelter from from this woman that keeps reading this book with the baby, and Sylvester as last strategy himself himself himself hides, himself dresses inside, himself puts inside a trunk of a tree and himself himself puts some leaves on the head, basically (he) keeps a nest in the hand to attract him with a bird fake, of these that make the sounds, him makes a sound of lure as bird, and when finally (he) him has there in the nest arrives again the bulldog gray that is interested in the tree, basically, stays there all curious, and Sylvester annoyed that with one hand takes a gun of water and him splashes the water in the face, and the bulldog goes crazy, is furious, (it) ends that (they) each other follow in the city and Tweety that calls the poli- calls I don't know if the police or basically, calls the dog catcher to save Sylvester.
3. The cartoon starts in a park, Tweety is in a fountain and (he) is himself washing and (he) is singing, and there's a row of benches with all men that read the newspaper and the last of these men is Sylvester, and (he) has holes from the eyes – (he) has holes in the newspaper for the eyes to see and little by little, hiding behind the newspaper gets close to Tweety and (he) is about to put him in his mouth, but Tweety himself needs to dry off, so (he) doesn't see and takes the tongue of Sylvester to start drying himself, and when (he) realizes that it is Sylvester, (he) flies away on the

shoulder of a woman seated on a bench. This woman is dressing in blue and has a white apron and (she) is there with a baby on a tricycle, and Tweety tries to explain her that Sylvester him wants to eat and so when Sylvester gets closer, the woman sends him away and him tells he should not pick it on on a flying animal. And then Sylvester himself himself disguises as baby, still on the tricycle and gets close to the woman crying saying that (he) wants that (he) wants the bird, so the the babysitter, I think she is, takes takes Tweety and him gives to the baby that is actually Sylvester. So Sylvester him puts in his mouth but the woman him scolds, because (she) her told many times not to put things in mouth, so the - takes Sylvester and him puts on her knees and starts spanking him until (he) spits Tweety. Mhh Tweety runs away and starts walking by a dog that has a leash, and Sylvester starts chasing him, but (he) cannot stop on time, pushes the dog and (he) ends up himself having the leash, so (he) still walks by Tweety, until Tweety realizes it and (they) run away. Tweety flies on top of a building and Sylvester is down, so (he) starts chewing a bubble gum and infl- (he) makes a bubble with the bubble gum and flies on the top, but Tweety him makes the bubble explode, so (he) falls. At half way, (he) starts blowing again so the bubble gum inflates and (he) arrives again on the top, and Tweety attaches him a weight, so he falls even more down, and then Sylvester hides behind a corner, thinking that Tweety is behind the corner and tries to hit him with a shovel but actually on the shovel there's the shape of the face of the dog, so Sylvester runs away and (they) go back to the park where Tweety is still on the shoulder of the babysitter, and mhh – at this point I don't remember exactly what happened – ah yes, Sylvester himself disguises as tree, and starts using a bird call and draws a nest fake close to Tweety, Tweety falls for it and goes in the nest, and but at that point arrives the dog that starts sniffing Sylvester, Sylvester him splashes with some water, but the dog starts chasing him, and that point Tweety runs away, and I think that's the end.

English literal translation of Italian transcription (lower proficiency speakers)

1. So the cartoon starts with a first scene where (we) are in in a park ehh and there's Tweety that is making the bath in a mhh fountain mhh and on a bench near to this fountain there's Syl- there's the cat there's Sylvester that mhh reading a newspaper tries to hide himself and to not make himself seen of course, ehm and slowly slowly himself gets close always more to the to the fountain, obviously with the intent to catch Tweety. Little by little he gets closer, until at some point while (he) is there, while (they) are one, let's say one next to the other in the fountain, Tweety realizes that there's anyway this I mean that there is the cat, that there's Sylvester and (they) start, (they) start chasing each other, and there's this scene in which there's, I don't remember now, a a something in between, but still (they) run in a way circular, like a classic scene in which, yeah yes, (they) go first one behind the other and then (they) go the other way around basically. (They) run, run, run, until, still in this park, Tweety goes to hide himself, I mean more than hide more than hiding, to look a, I mean shelter in a bench where there is a is sitting a woman with with the mhh with the daughter. This woman is reading a book and Tweety himself puts there by her, and Sylvester runs, trying always to catch Tweety, but the the woman him stops and and starts beating him telling him that that (he) should be as- (he) should be ashamed of himself because I mean shouldn't be attacked the the poor undefended creatures, or or something like that. Anyway Sylvester notices that that the daughter of this woman is in is in, is sitting in a tricycle let's say, next to next to the bench, so we see that in the scene ne- later Sylvester dresses up like baby, and and let's say exchanges lets say the exchanges like the the baby with with himself, and starts complaining, he starts crying and whining saying that he wants Tweety, the little bird. Mhh then the mom let's say, sick of that after a while, to him it gives, obviously without realizing that her daughter is not her daughter, but Sylvester dressed up as her daughter, and Sylvester takes let's say Tweety in the hand with an evil laugh and and tries to eat him. But once (he) put him in mouth, the mom him takes and starts spanking him and and scolding him, saying that she should not put things in mouth and mhh after that Tweety Tweety does the same, (she) him spans but with a with a with a wooden stick, staying the same thing "You should not put things in your mouth, especially if it's

me". After that there's a scene, still in this park in which there's a man that is walking the dog and mhh let's say Tweety mhh finds shelter in this in this dog because he gets close to him, but at some point, the street is like a fork, but Tweety goes straight and the dog with the with the man go left, where there's a small turn not, but anyway the streets after a while rejoin. So Sylvester, not thinking that then anyway the streets would join again, starts chasing him again. But at some point, he crashes against the dog and the dog starts chasing him. After a, yes, after that, mhh there's a scene in which Sylvester tries to tries to make a a trap for Tweety, and himself hides be- behind a tree, Tweety is on a branch of of this tree and tries to hide on the head of Sylvester. After a short dialog, I don't remember well what, Sylvester then realizes that Tweety is on the head, (they) start chasing each other again, (they) run run run, until (they) get to a building, Tweety starts to fly and finds shelter mhh let's say in a in a window, on a floor still high of this building. Sylvester, what he does, takes a bubble gum, starts chewing it and makes a balloon to reach Tweety. Arrived to the top, I mean to the top mhh on the floor where there's Tweety, immediately Tweety takes a pin and and pierces the balloon, making fall the cat. The cat after that, while (he) is falling, takes another one of bubble gum, chews, chews, chews, makes another balloon and flies again towards Tweety. This time though Tweety this time him gives an an- an anvil, and so the cat starts falling down, only that then, mhh letting go of this this I mean letting go of anvil, let's say gets gets a a strength strange so (he) flies up, I mean at a speed stratospheric, and Tweety, for the third time, makes him fall, this time though with a slingshot, I mean he throws this slingshot in the sky and you can see the balloon that explodes and and Sylvester that falls again on the ground, but Tweety at some point going down says "(I) will save you my cat" etcetera etcetera, putting a mhh pillow on on the ground, letting him fall on this pillow, but when Sylvester lands and falls, I mean leans on this pillow, but (he) falls still ruinously, because instead of being a normal pillow feather, it's a pillow inside with another anvil, so he gets hurt very badly, himself himself squashing on the ground and and nothing. Then the last scene mhh in which there's always Sy- Sylvester, I mean (we) are in this park, mhh Tweety is again mhh with the with the lady of before and Sylvester himself disguise as tree. Mhh indeed, disguising himself as as tree and with and with a whistle let's say special (he) makes a call for birds and lures Tweety to him, lures Tweety in the I mean, in the in the in the in the arm, where where there was a nest. Tweety goes in this nest and and I mean Sylvester, sure he got him in his fist, tries to to tries to take him, but at some point arrives the dog that would like to pee on the on the on the trunk of the tree, but Sylvester mhh with a with the paw takes a gun of water and him splashes. This dog then, I mean the dog realizes that it is the tree, that is that is the cat, I mean (he) understands that instead of being a tree (it) is Sylvester dressed up as tree and (they) start to to, and the dog starts chasing him. And nothing, the cartoon ends like this.

2. Okay, there are different stories, one following the other, always Tweety that wants to be mhh always Sylvester that wants to eat Tweety, so let's say that the cartoon starts when Tweety herself is washing in the fountain, and Sylvester himself prepares with the tongue close to the fountain to - so that when Syl-, Tweety doesn't see because (she) has the eyes wet, Sylvester her offers the tongue to clean herself, the other herself dries off, then (she) realizes that (it) is the tongue and so (she) runs away. Sylvester her chases but she seeks refuge in the, from the mhh caretaker, from a pedestrian that is in the garden, in the park in whi- in which (they) stay, in which there's also the fountain and the care- this woman let's say mhh (she) beats the dog- the cat (she) beats the cat so that (he) cannot her eat. After that Sylvester, tries to disguise himself as as baby and (he) has a tantrum to- and asks for Tweety to to to play, and the woman him- him her gives, him gives Tweety, because (she) thinks it's the baby asking for her, and instead the baby him eats, but at that point the woman realizes that the baby is not supposed to eat the bird, and mhh and her tells that (she) should not eat the bird, because I don't know, probably it's like it is a thing dirty, and ehm - mhh and so nothing, (she) her spansks, spansks the the baby, and so even this this, this attempt didn't work. So Tweety ru- runs away towards mhh runs away with a dog, with the dog and and Sylvester mhh manages to isolate her from the doh somehow and then Tweety looks for shelter on a building, a window of a building, and basically flies, but the cat cannot fly, therefore to reach the window of

the building where Tweety found shelter, (he) has to inflate a big babol and go up to her level, but Tweety then him gives a hammer, an anvil, and so the cat falls rapidly to the ground, then (he) realizes that (he) could let the anvil go because (she) him put it simply in his hands, (he) lets it go and Twe- Tweety, no and and (he) starts rising again. Tweety at that point breaks the big babol with a with a stone that (she) throws to him with a slingshot, and the cat ends up on the ground, and instead of putting – (she) him would like to put something soft, you can see that (she) him puts a pillow on the floor, so that when (he) falls (he) doesn't hurt himself, but under the pillow there's again the anvil, so the cat gets hurt anyway. The last attempt of Sylvester to eat the the bird is that of disguising himself as a tree, and having, and singing, with a tool (he) sings the call of the of the little bird and the little bird falls for it, goes there in the - on the tree in the nest that's on the tree that basically is the cat, but arrives also the dog that would probably like to pee on the tree and mhh and Sylvester to throw out the dog, him throws some water and so the dog gets mad, realizes it and starts chasing the the cat until the story ends like this.

3. The cartoon is about the usual adventures between Tweety and Cat Sylvester. The scene starts that (it) opens in a park, Tweety is making the bath and Cat Sylvester her sees and tries to to eat her like usual. And so the tries to defend herself because basically there's a babysitter in the park that is looking a baby boy or a baby girl, a baby girl, and so (he) himself hides behind the babysitter that al- her helps against the cat. But the cat tries again, and takes the clothes, steals the clothes of the baby, himself disguises as baby, starts to play with with the bird, with Tweety and her eats, actually (he) her doesn't eat, her puts in mouth. The babysitter promptly manages to to see the scene and so manages to save the little bird, thinking that the baby swallowed the little bird, and and so mhh the little bird then herself hides ah still in the park tries to defend herself making herself help from a dog, Cat Sylvester takes the place of the dog and but doesn't manages anyway to attack the little bird. Other important scene, the little bird runs on a building and mhh the cat, Cat Sylvester swallows, eats a chewing gum, a chewing gum and makes, creates a a balloon and manages to fly towards up and makes this attempt for three times. The first time Tweety with a needle manages to deflate, to burst the balloon and so Cat Sylvester falls down from the building. Re-tries a second time and the second time she hits the balloon with an anvil, and so Cat Sylvester again goes down. And the third time with a needle basically. And and (she) manages anyway to save himself, (they) run. (She) runs from the building and mh I think that for the last time ah there's another episode of Tweety that herself puts on the head and when Cat Sylvester it realizes, tries to hit Tweety on the head, but (he) hits himself basically, with a cane. And other other other scene, Tweety that mhh herself hides always asks help to the dog, ah no, Cat Sylvester that tries to hit Tweety with a shovel, but instead of hitting Tweety (he) hits Cat Sylv- the dog, that so attacks the cat. And last scene the cat and the dog that themselves go, I mean the cat that tries to save himself from the dog because the dog finds out that the cat himself hid inside a trunk and because (he) wanted to allure Tweety with a whistle, a whistle that reproduces the call of the little birds. So Cat Sylvester himself disguises as tree, takes this whistle that is the whistle that you use to lure the little birds because (it) reproduces the sound of the little birds, Tweety goes and but luckily the dog realizes that inside the trunk there is Cat Sylvester and so him him starts chasing and Tweety herself saves and makes this phone call, I didn't understand who (she) calls. The cartoon ends like this, finishes like this.

English idiomatic translation of Italian transcription (higher proficiency speakers)

1. So, cartoon of Tweety and Sylvester. We start with park location, there's Tweety that is taking a shower in a, a bath in a fountain, and Sylvester that spies her through a newspaper, and he moves close to her, he moves close to her, until he gets to the fountain to eat her with his mouth open. Tweety dries off with his tongue, until she decides that, until she understands that it is the cat, and so she starts to run. They start running, basically usual stuff like Tweety and Sylvester, until Tweety sees, I mean until they meet this nanny that is at the park taking care of a child, and who helps Tweety hitting Sylvester with an umbrella, and this is, this first part. After that Sylvester decides to

disguise himself as a baby, baby to which the nanny is, which the nanny is looking after, and basically he asks her to play with the little bird, and he eats it. The nanny realizes it and spansks him and tells him that he cannot eat stuff. And Tweety spansks him as well. Then after that ah, Tweety hides on a tree and from the tree she jumps on the head of Sylvester, so she hides there and Sylvester doesn't see her, he prepares a trap that doesn't work and eventually Sylvester hits himself on the head, basically to kill Tweety. And they keep running until, still in the park, they meet a bulldog, with an ow- I mean the dog with his owner, and they are walking, so Tweety shield herself with the dog, until, while running, Sylvester takes the place of the dog and tries to eat her, once again. They run, run, run, Tweety flies on a building, and Sylvester tries to reach her eating a chewing gum, so this chewing gum, he inflates this chewing gum to go up. Tweety pierces the first gum with a pin, Sylvester eats another one, Tweety throws him an anvil, Sylvester falls down, then he gets rid of this anvil and flies up in the sky, and Tweety, with a slingshot makes him fall again on the ground, where she prepared a nice pillow for the landing, but inside of which there's an anvil, so Sylvester gets hurt. And then mhh, I think we are back to the park, ah there's a part in which Sylvester hits something with a shovel behind a corner thinking to hit Tweety, instead he hits the bulldog, and so this endless escape continues. And then there's the part of the park where Sylvester disguises himself as a tree and with a gadget fakes the call of the birds to attract Tweety, that stops into the nest, but even the bulldog arrives, that thinks the tree is a urinal, and when he realizes that the tree is Sylvester, he chases him, and everything ends with Tweety that calls the *pet shop* I think, so the pet shop to say stuff I didn't understand.

2. There are Tweety and Sylvester in a park and Tweety is having a bath in a fountain, a fountain made of stone, in the middle of a park and sings, and Sylvester hides himself among some men that read the newspaper, behind a newspaper and waits to try to eat him, he gets close and Tweety realizes that it is Sylvester, he runs and they start chasing each other for a little while, at the beginning. They chase each other around a round fountain and at some point Tweety hides behind a woman that is reading a book and close to her there is a small baby, a newborn. And the woman, somehow Tweety scr- gets understood by the woman, by crying and saying that there is the cat that is trying to kill him. So, the woman as soon as Sylvester gets closer, takes an umbrella and hits him on the head and insults him and humiliates him a little. So, Sylvester goes away and has to think about how to get closer. Tweety is always on the shoulder of the woman that is reading a book, Sylvester takes, while the woman is there focused on reading, like I don't know, she chuckles, gets distracted, Sylvester takes the baby in the carriage and I don't know what he does with the baby, but he dresses up as the newborn, takes his clothes, puts himself in the carriage and sta- and starts to scream pretending to be the newborn that wants a toy. So the woman grabs Tweety that is here on the shoulder and gives it to him, without thinking, but he eats it, clearly. The woman sees him, and says, without recognizing that it is a cat, she him tells "how many times do I have to tell you not to eat toys?" so she spansks him on the butt, and so the cat spits Tweety, who also takes a bar and hits him on the butt so as to punish him. Tweety then tries to protect himself walking by a big dog, a bulldog on a leash, and walking by him Sylvester is afraid and hides himself, doesn't want to go- doesn't want to run behind him. At some point the bulldog and Tweety separate for a moment, so Sylvester runs, but then, while he is running after him, the dog returns, and Sylvester hits him completely from the back, and ends up at the place of the dog, and tries to pretend to be the dog this time, to get close to Tweety as much as possible, but also Tweety runs this time, he runs on the top of a building, flying, a skyscraper while they go out of the park, he runs on a skyscraper. And this time Sylvester eats a big babol, a chewing gum, makes a balloon and goes up. One time Tweety pierces his balloon with the needle, one time he gives him an anvil, basically he makes him fall every time. And at the end Sylvester falls badly on a pillow, Tweety him puts a pillow below, but actually inside of it there is an anvil, therefore he smashes into the ground. After that, still in the city he tries to wait for Tweety behind a corner with a spade in the hands to try to smash him, but instead he smashes the head of the dog, the same bulldog of before that follows again. Then he tries also to make a trap for Tweety in the park, a trap with a bait, some food, but Tweety goes on his head,

therefore he is too stupid to realize that Tweety is on his head and basically when he realizes that he is up there, he gives himself a clamorous bump with a cudgel. And finally again Tweety found shelter in this woman that keeps reading this book with the baby, and Sylvester as a last strategy hides himself, goes inside a trunk of a tree and puts some leaves on his head, basically he holds a nest in his hand to attract him with a fake bird, those that make a call, he makes a sound to lure the bird, and when he finally got him there in the nest, the gray bulldog arrives again, who is interested in the tree, basically, stays there all curious, and Sylvester annoyed, with one hand takes a water gun and splashes some water on his face, and the bulldog goes crazy, is furious, it ends that they follow each other around the city and Tweety that calls the poli- calls I don't know if the police or basically, calls the dog catcher to save Sylvester.

3. The cartoon starts in a park, Tweety is in a fountain and he's washing himself and he's singing, and there's a row of benches with some men that are reading the newspaper and the last of these men is Sylvester, and he has holes in his eyes – he has holes in the newspaper for his eyes to see, and little by little, hiding behind the newspaper gets close to Tweety to put him in his mouth, but Tweety needs to dry himself off, so he can't see and takes Sylvester's tongue to start drying himself off, and when he realizes that it is Sylvester, he flies away on the shoulder of a woman that is seated on a bench. This woman is dressed in blue with a white apron and she's there with a baby on a tricycle, and Tweety tries to explain her that Sylvester wants to eat him and so when Sylvester gets closer to the woman, she sends him away telling he should not pick it on a flying animal. Then Sylvester disguises himself as a baby, still on the tricycle and gets close to the woman crying and saying that he wants the bird, so the babysitter, I think she is, takes Tweety and gives him to the baby that is actually Sylvester. Sylvester puts him into his mouth but the woman scolds her, because she told her many times not to put things in her mouth, so the woman takes Sylvester, puts him on her knees and starts spanking him until he spits Tweety. Tweety runs away and starts walking by a dog on a leash, and Sylvester starts chasing him, but he cannot stop on time, he pushes the dog and he ends up in the leash, so he still walks by Tweety, until Tweety realizes it and they run away. Tweety flies on top of a building and Sylvester is down, so he starts chewing a bubble gum and he makes a bubble with the bubble gum and flies on the top, but Tweety makes the bubble explode, so he falls. When he's half way, he starts blowing again and the bubble gum gets inflated and he's up again, and Tweety gives him a weight, so he falls even more down. Then Sylvester hides behind a corner, thinking that Tweety is behind the corner and tries to hit him with a shovel but actually on this shovel there's the shape of the face of the dog, so Sylvester runs away and they go back to the park where Tweety is still on the shoulder of the babysitter, and Sylvester disguises himself as a tree, and starts using a bird call and draws a fake nest close to Tweety. Tweety falls for it and goes in the nest, but at that point the dog arrives and starts sniffing Sylvester, Sylvester splashes him with water, but the dog starts chasing him, at which point Tweety runs away, and I think that's the end.

English idiomatic translation of Italian transcription (lower proficiency speakers)

1. So the cartoon starts with a first scene in which we are in a park and there's Tweety that is having a bath in a fountain and on a bench near this fountain there's Syl- there's the cat, there's Sylvester that reading a newspaper tries to hide and to not be seen of course, and slowly gets more and more closer to the fountain, obviously with the intent to catch Tweety, and little by little he gets closer, and at some point while he's there he puts his – they're one – let's say they're next to each other in the fountain, Tweety realizes that there's the cat, that there's Sylvester and he starts, they start chasing each other, and there's this scene in which there's, I don't remember now, something in between, but still they run in a circular way, like a classic scene in which, yeah, first they go one behind the other and then the other way around basically. They run run run until, still in this park, Tweety hides himself, I mean more than hide, he looks for shelter on a bench where a woman is sitting with her daughter. This woman is reading a book at Tweety stands by her, and Sylvester is still running, trying to catch Tweety, but the woman stops him and starts beating him telling him

that he should be ashamed of himself because he should not attack poor undefended creatures, or something like that. But Sylvester notices that the daughter of this woman is sitting in a tricycle let's say, next to the bench, so we see that in the next scene Sylvester dresses up like the baby, and let's say takes the place of the baby, and starts complaining, he starts crying and whining saying that he wants Tweety, the little bird. Then the mom let's say, after a while sick of that, gives the bird to him, obviously without realizing that her daughter is not her daughter, but Sylvester dressed up as her daughter, and Sylvester takes Tweety and with an evil laugh tries to eat him. But once he put him in his mouth, the mom takes him and starts spanking him and scolding him, saying that she should not put things in her mouth. And after that Tweety does the same, but she spans him with a wooden stick, staying the same thing "You should not put things in your mouth, especially if it's me". After that there's a scene, still in this park in which there's a man walking the dog and let's say Tweety finds shelter in this in this dog because he gets close to him, but at some point, the street is like a fork, but Tweety goes straight and the dog with the man goes left, where there's a small turn, but anyway the streets rejoin later. So Sylvester, not thinking that the streets would join again, starts chasing him again. But at some point, he crashes into the dog and the dog starts chasing him. After that, there's a scene in which Sylvester is trying to make a trap for Tweety, and hides behind a tree, Tweety is on a branch of this tree and tries to hide on Sylvester's head. After a short dialog, I don't quite remember about what, Sylvester then realizes that Tweety is on his head, they start chasing each other again, they run run run, until they get to a building, Tweety starts to fly and finds shelter mhh let's say in a window, on a high floor of this building. Sylvester takes a bubble gum, starts chewing it and makes a balloon to reach Tweety. Once he gets to the top, mhh I mean on the floor where there's Tweety, immediately Tweety takes a pin and and pierces the balloon, making the cat fall. After that the cat, while he's falling, takes another bubble gum, chews chews chews, makes another balloon and and flies again towards Tweety. This time though Tweety gives him an anvil, and so the cat starts falling down, but then, letting this anvil go, let's say gets a strange strength so he flies up, I mean at a stratospheric speed, and Tweety, for the third time, makes him fall, this time though with a slingshot, I mean he throws this slingshot in the sky and you can see the balloon exploding and Sylvester falling again on the ground, but Tweety at some point going down again says "I will save you my cat" etcetera etcetera, putting a pillow on the ground, letting him fall on this pillow, but when Sylvester lands and falls, I mean leans on this pillow, but he still falls ruinously, because instead of being a normal feather pillow, it's a pillow with another anvil inside, so he gets hurt very badly, squashing himself on the ground and that's all. Then the last scene in which there's always Sylvester, I mean we are in this park, Tweety is again with the lady of before and Sylvester disguise himself as a tree. Mhh indeed, by disguising himself as a tree and with a let's say special whistle makes a call for birds and lures Tweety, in the arm, where there was a nest. Tweety goes in this nest and I mean Sylvester, sure he got him, tries to take him, but then at some point the dog arrives and he would like to pee on the tree trunk, but Sylvester with his paw takes a water gun and splashes him. This dog then, I mean the dog realizes that the tree is a cat, I mean that instead of being a tree it's Sylvester dressed up as a tree and they start to, and the dog starts chasing him. And nothing, the cartoon ends like this.

2. Okay, there are different stories, one following the other, always Tweety that wants to be – always Sylvester that wants to eat Tweety, so let's say the cartoon starts when Tweety is washing himself in a fountain, and Sylvester is ready with his tongue close to the fountain, so that when Syl-, Tweety is not looking because her eyes are wet, Sylvester offers her his tongue to clean himself, the other dries herself but she realizes that it is the tongue so he runs away, Sylvester chases her but she seek refuge from the caretaker from a pedestrian that is in the garden, in the park where they are, in which there's also the fountain and the care- this woman let's say mhh she beats the dog- the cat she beats the cat so that he cannot eat her. After that Sylvester tries to disguise himself as a baby and has a tantrum and asks for Tweety to play with her, and the woman gives her to her, gives Tweety to her, because she thought it's the baby asking for him, instead the baby eats her, but at that point the woman realizes that the baby is not supposed to eat the bird, and tells her she should

not eat the bird, because I don't know it's like he's dirty, and nothing she spansks her, she spansks the baby and so this attempt didn't work either. Then Tweety runs away towards, runs away with a dog, with the dog and Sylvester manages to isolate her somehow and then Tweety looks for shelter on a building, on the window of a building, and basically flies, but the cat cannot fly, therefore to reach the window where Tweety found shelter, he has to inflate a big babol and go up to her level, but then Tweety gives him a hammer, an anvil, so the cat rapidly falls to the ground, then he realizes that he could let the anvil go because she simply put it in his hands, he lets it go and Tweety, no he starts rising again. At that point, Tweety breaks the big babol with a stone that she throws with a slingshot and the cat ends up on the ground, and instead of putting – she would like to put something soft, you can see that she's putting a pillow on the floor, so that when he falls he doesn't get hurt, but under the pillow there's the anvil again, so the cat gets hurt anyway. Sylvester's last attempt to eat the bird is that of disguising himself as a tree, and having, and singing with a tool, he sings the call of the little bird and the bird falls for it, goes there on the tree in the nest that's on the tree that is basically the cat, but the dog arrives as well and that would probably like to pee on the tree and Sylvester, to make the dog go away throws some water at him and so the dog gets mad, realizes it and starts chasing the cat until the story ends in this way.

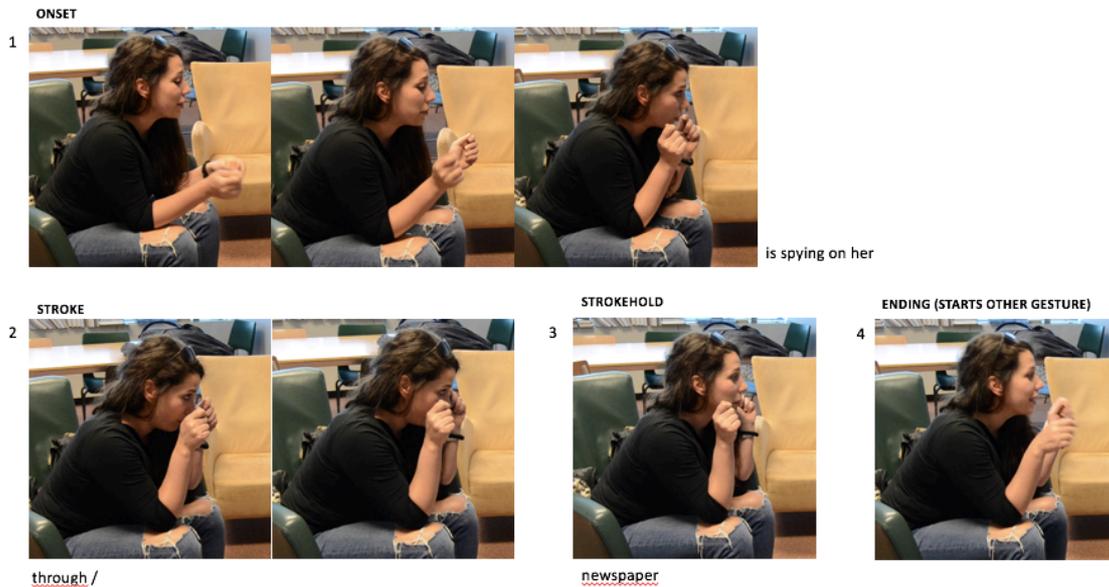
3. The cartoon is about the usual adventures between Tweety and Sylvester Cat. The scene starts, it opens in a park, Tweety is having a bath and Sylvester Cat sees her and tries to eat her as usual. And so she tries to defend herself because basically there's a babysitter in the park that is looking after a baby boy or a baby girl, a baby girl, and so she hides herself behind the babysitter that helps her against the cat. But the cat tries again, and takes the clothes, steals the clothes of the baby, disguises himself as a baby, starts to play with the bird, with Tweety and eats her, actually he doesn't eat her, he puts her into his mouth. The babysitter promptly manages to see the scene and so she manages to save the little bird, thinking that the baby swallowed the little bird, and so the little bird then hides herself ah still in the park she tries to defend herself asking for help from a dog, Sylvester Cat takes the place of the dog but he doesn't manages to attack the little bird anyway. Another important scene, the little bird runs on a building and the cat, Cat Sylvester swallows, eats a chewing gum, a chewing gum and makes, creates a balloon and manages to fly up and makes this attempt for three times. The first time Tweety with a needle manages to deflate, to burst the balloon, and so Cat Sylvester falls down from the building. He tries again a second time and the second time she hits the balloon with an anvil, and so Cat Sylvester again goes down. And the third time with a needle basically. And she manages anyway to save herself, they run. She runs from the building and I think that for the last time ah there's another episode of Tweety that goes on the head and when Cat Sylvester it realizes, tries to hit Tweety on the head, but he hits himself basically, with a cane. And other scene, Tweety that hides herself always asks for help from the dog, ah no, Cat Sylvester that tries to hit Tweety with a shovel, but instead of hitting Tweety he hits Cat Sylvester the dog, that then attacks the cat. And last scene the cat and the dog that go, I mean the cat that tries to save himself from the dog because the dog finds out that the cat hid inside a trunk because he wanted to allure Tweety with a whistle, a whistle that reproduces the call of the little birds. So Cat Sylvester disguises himself as tree, takes this whistle that is the whistle that you use to lure the little birds because it reproduces the sound of the little birds, Tweety goes but luckily the dog realizes that inside the trunk there is Cat Sylvester and so he starts chasing him and Tweety saves herself and makes this phone call, I didn't understand who she calls. The cartoon ends like this, finishes like this.

Transcript of gestures (higher proficiency speakers)

Speaker 1

- 1) It starts in a park where Tweety is having a bath in a fountain and Sylvester [is spying on her **through / newspaper**] sitting on a bench.

Timing 00:19 – 00:22

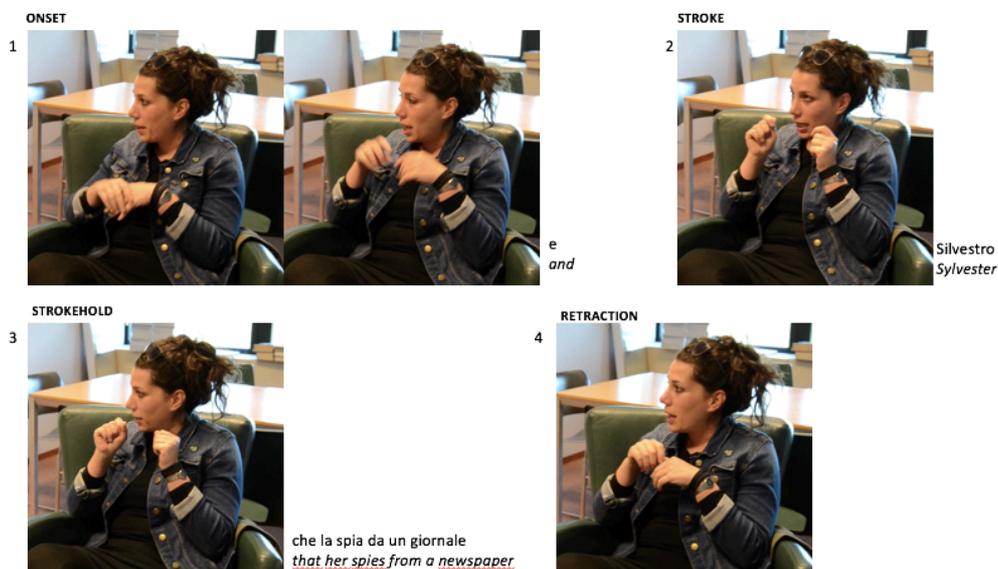


- 2) Partiamo con ambientazione parco, c'è Titti che si fa la doccia in una, il bagno in una fontana, [e **Silvestro** che la spia da un giornale] e le si avvicina le si avvicina, finché arriva nella fontana per mangiarla con la bocca aperta.

*We start with location park, there's Tweety that herself makes the shower in a, the bath in a fountain, [and **Silvestro** that her spies from a newspaper] and to her moves close, to her moves close, until (he) arrives in the fountain to eat her with the mouth open.*

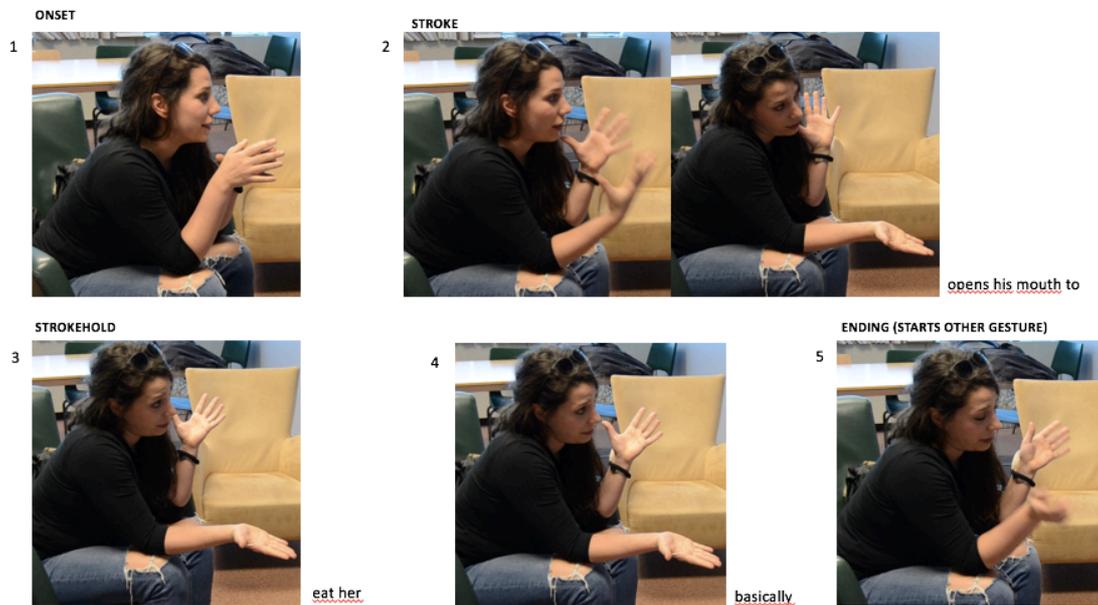
We start with park location, there's Tweety that is taking a shower in a, a bath in a fountain, [and Sylvester that spies her through a newspaper] and he moves close to her, he moves close to her, until he gets to the fountain to eat her with his mouth open.

Timing 00:10 – 00:13



- 3) it starts in a park where Tweety is having a bath in a fountain and Sylvester is spying on her through newspaper sitting on a bench. Eventually he gets to the fountain and [**opens his mouth** to eat her basically] but Tweety use his tongue as a towel and finally discovers is a cat that wants to eat her.

Timing 00:27 – 00:31

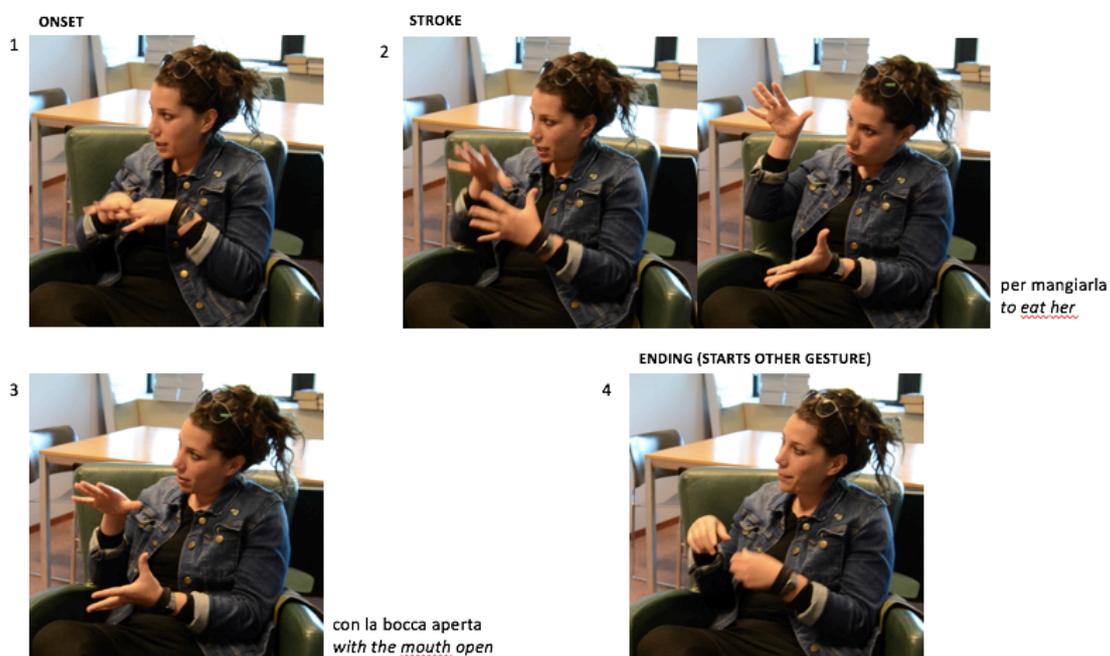


- 4) Partiamo con ambientazione parco, c'è Titti che si fa la doccia in una, il bagno in una fontana, e Silvestro che la spia da un giornale e le si avvicina le si avvicina, finché arriva nella fontana [**per mangiarla con la bocca aperta**].

We start with location park, there's Tweety that herself makes the shower in a, the bath in a fountain, [and Sylvester that her spies from a newspaper] and to her moves close, to her moves close, until (he) arrives in the fountain [to eat her with the mouth open].

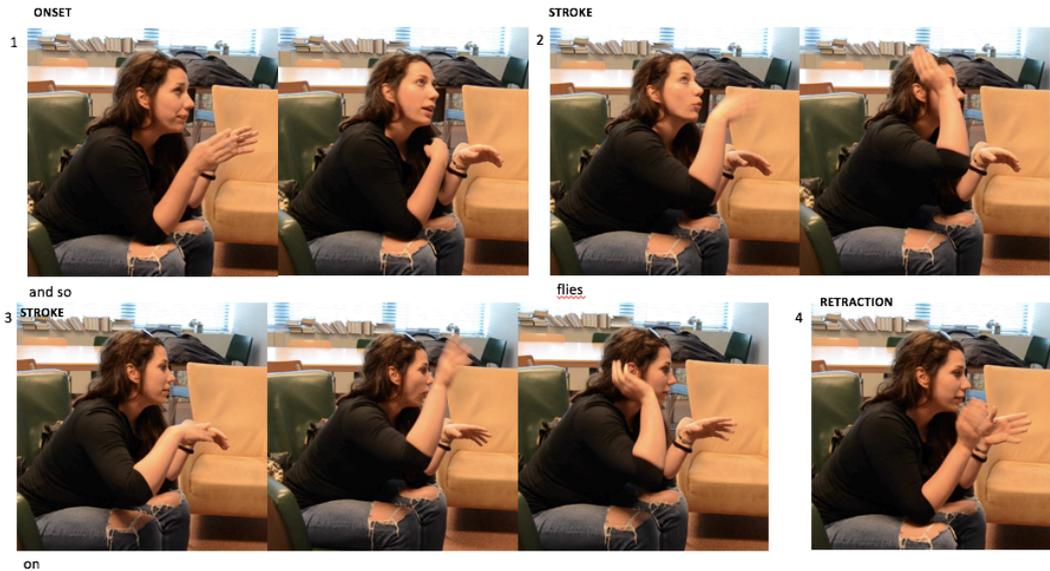
We start with park location, there's Tweety that is taking a shower in a, a bath in a fountain, [and Sylvester that spies her through a newspaper] and he moves close to her, he moves close to her, until he gets to the fountain to eat her with his mouth open.

Timing 00:16 – 00:18



- 5) Tweety gives him this huge piece of iron that is very heavy, I don't know its name in English, and so he falls down again. But then he threw this piece of iron away [and so **flies on**] and in the end Tweety just like you know use this tool I don't know to do it does like this to make him fall.

Timing 02:57 – 02:59

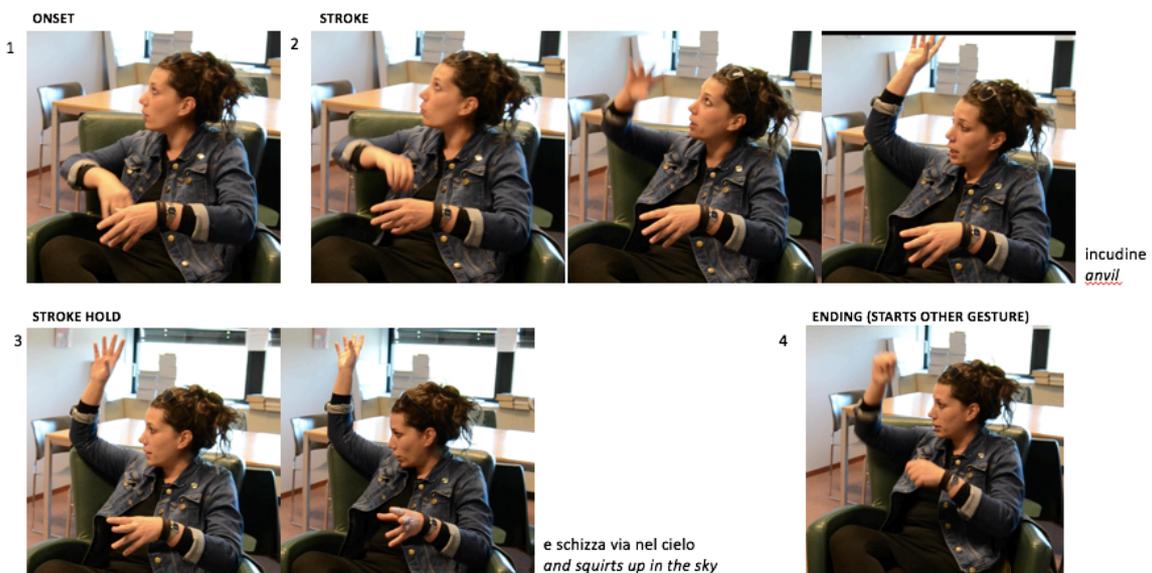


- 6) Titti, buca la prima gomma con uno spillo, Silvestro ne mangia un'altra, Titti gli butta un'incudine, Silvestro cade giù, poi butta via quest' [**incudine** e schizza via nel cielo], e Titti con un colpo di fionda lo fa ricascare a terra.

*Tweety pierces the first gum with a pin, Sylvester eats another one, Tweety him throws an anvil, Sylvester falls down, then (he) throws away this [**anvil** and squirts up in the sky], and Tweety, with a shot of slingshot him makes re-fall on the ground.*

Tweety pierces the first gum with a pin, Sylvester eats another one, Tweety throws him an anvil, Sylvester falls down, then he gets rid of this anvil and flies up in the sky, and Tweety, with a slingshot makes him fall again on the ground

Timing 02:11 - 02:14



Speaker 2

1) Then they're they're chasing each other in the park and finally the the bird gets shelter behind the on the neck of a of a lady and screams to the lady that the cat is running after after him. And mhh and then the lady [beats the cat and shames the cat /] because he is trying to eat this poor little bird.

Timing 01:10 – 01:14



2) E la signora in qualche modo Titti stri- si fa capire dalla signora, facendo dei versi che c'è il gatto che lo sta cercando di di di uccidere. Allora la signora appena Silvestro si avvicina, prende un ombrello [e glielo glielo dà in testa] e lo lo insulta e lo umilia un pochino.

And the woman somehow Tweety scr- makes himself understood from the woman, making some cries that there is the cat that him is trying to to to to kill. So the woman as soon as Sylvester gets close takes an umbrella [and it gives him it gives him in the head] and him him him insults and him humiliates a little.

And the woman, somehow Tweety scr- gets understood by the woman, by crying and saying that there is the cat that is trying to kill him. So, the woman as soon as Sylvester gets closer, takes an umbrella and hits him on the head and insults him and humiliates him a little.

Timing 01:20 – 01:21



3) And while the lady is reading the book, the cat steals the trolley and dresses in the in the clothes of the baby, and then pretend to be the baby like screams that he wants a toy to play with, [and the lady takes the **the bird** and], without thinking about it, gives it to the to the cat.

Timing 01:55 – 01:57

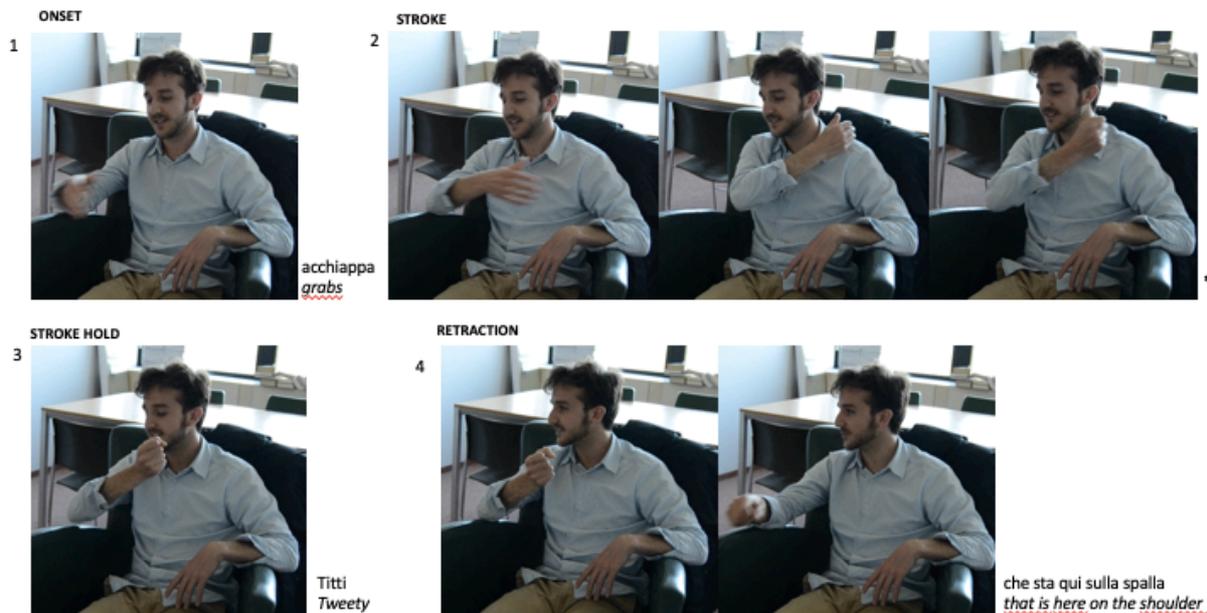


4) Silvestro prende il bambino nella culla e e e non so che fa del bambino ma si veste come il neonato, si prende ne prende i vestiti, si mette nella culla e com- e comincia a strillare facendo finta di essere il neonato che vuole un giocattolo. Allora la signora [acchiappa * Titti che sta qui sulla spalla] e glielo dà, senza pensarci, e lui però se lo mangia, chiaramente.

*Sylvester takes the baby in the carriage and and and (I) don't know what (he) does with the baby but dresses up as the newborn, (he) himself takes the clothes, himself puts in the carriage and sta- and starts to scream pretending to be the newborn that wants a toy. So the woman [grabs * Tweety that is here on the shoulder] and him he gives, without thinking, and him but eats it, clearly.*

Sylvester takes the baby in the carriage and I don't know what he does with the baby, but he dresses up as the newborn, takes his clothes, puts himself in the carriage and sta- and starts to scream pretending to be the newborn that wants a toy. So the woman grabs Tweety that is here on the shoulder and gives it to him, without thinking, but he eats it, clearly.

Timing 02:08 – 02:09



5) And while the lady is reading the book, the cat steals the trolley and dresses in the in the clothes of the baby, and then pretend to be the baby like screams that he wants a toy to play with, and the lady takes the the bird, and without thinking about it gives it to the to the cat, and the cats eats, cat finally eats it, but the lady, without noticing that it's a cat just takes it [and **beats it**] on on his butt.

Timing 02:10 – 02:11



6) La signora però lo vede, e dice, senza riconoscere che è un gatto, gli dice “però quante volte ti devo dire di non mangiare i giocattoli?” così [gli dà delle/] botte sul sedere, e allora il gatto sputa Titti.

The woman but him sees, and says, without recognizing that it is a cat, (she) him tells but “how many times do I have to tell you not to eat toys?” so [(she) him gives some/] spansks on the butt, and so the cat spits Tweety

The woman sees him, and says, without recognizing that it is a cat, she him tells “how many times do I have to tell you not to eat toys?” so she spansks him on the butt, and so the cat spits Tweety

Timing 02:24 – 02:25



Speaker 3

- 1) Tweety taking a bath in a fountain in the park and then there is a row of benches with men reading a newspaper and the end of these benches is Sylvester hiding behind a newspaper so he starts approaching to Tweety again hiding behind the newspaper and he's there almost getting Tweety into his mouth, but Tweety [is just **blindly**] reaching for something to dry himself so he starts using the tongue as a towel.

Timing 00:26 – 00:27

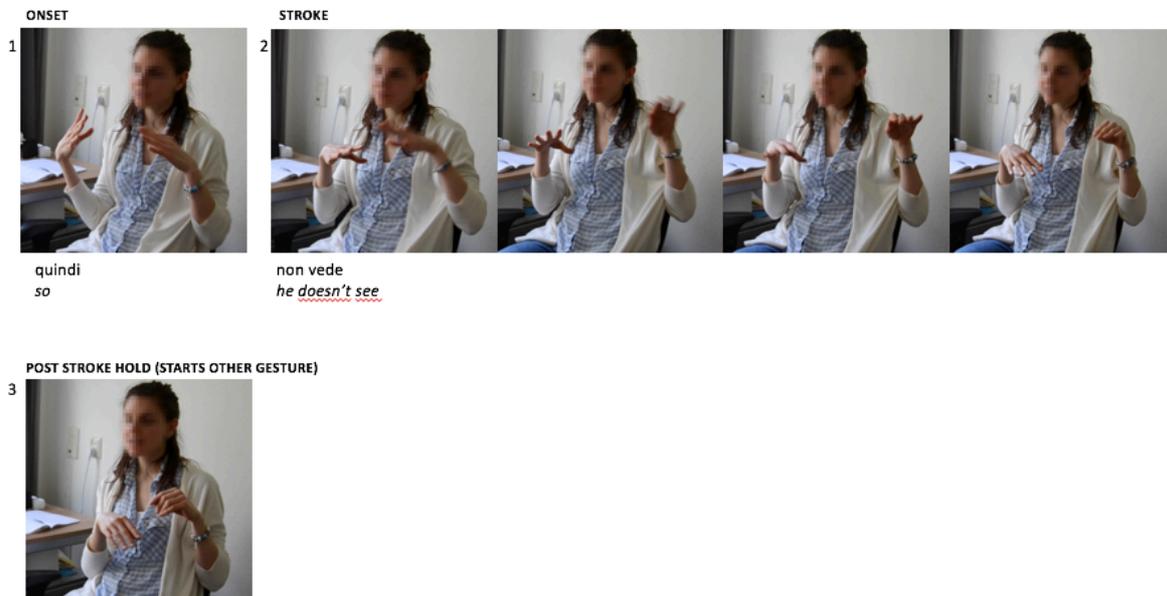


- 2) Pian piano nascondendosi dietro il giornale si avvicina a Titti e sta per metterlo in bocca ma Titti si deve asciugare [quindi **non vede**] e prende la lingua di Silvestro per iniziare ad asciugarsi.

*Little by little, hiding behind the newspaper gets close to Tweety and (he) is about to put him in his mouth, but Tweety himself needs to dry off, [so (he) **doesn't see**] and takes the tongue of Sylvester to start drying himself*

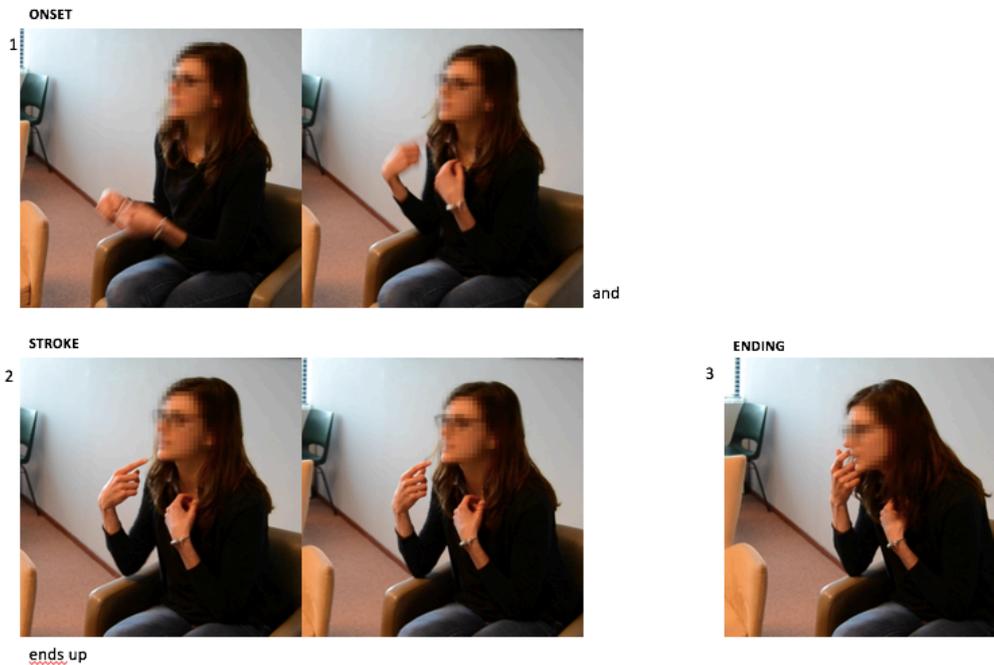
Little by little, hiding behind the newspaper gets close to Tweety to put him in his mouth, but Tweety needs to dry himself off, so he can't see and takes Sylvester's tongue to start drying himself off

Timing 00:27 – 00:28



3) Then there's again a change of scenery mhh they're still in the park but there's a dog on a leash and Tweety is walking away next to the dog and Sylvester starts running towards Tweety but actually bumps into the dog [and **ends up**] with the leash himself.

Timing 02:11 – 02:12



4) Titti corre via e comincia a camminare di fianco ad un cane che ha il guinzaglio e Silvestro comincia a rincorrerlo, però non riesce a fermarsi in tempo, spinge il cane [e rie- **e arriva lui ad avere il guinzaglio**], quindi cammina comunque di fianco a Titti.

*Tweety runs away and starts walking by a dog that has a leash, and Sylvester starts chasing him, but (he) cannot stop on time, pushes the dog [and (he) man- **and (he) ends up himself having the leash**], so (he) still walks by Tweety*

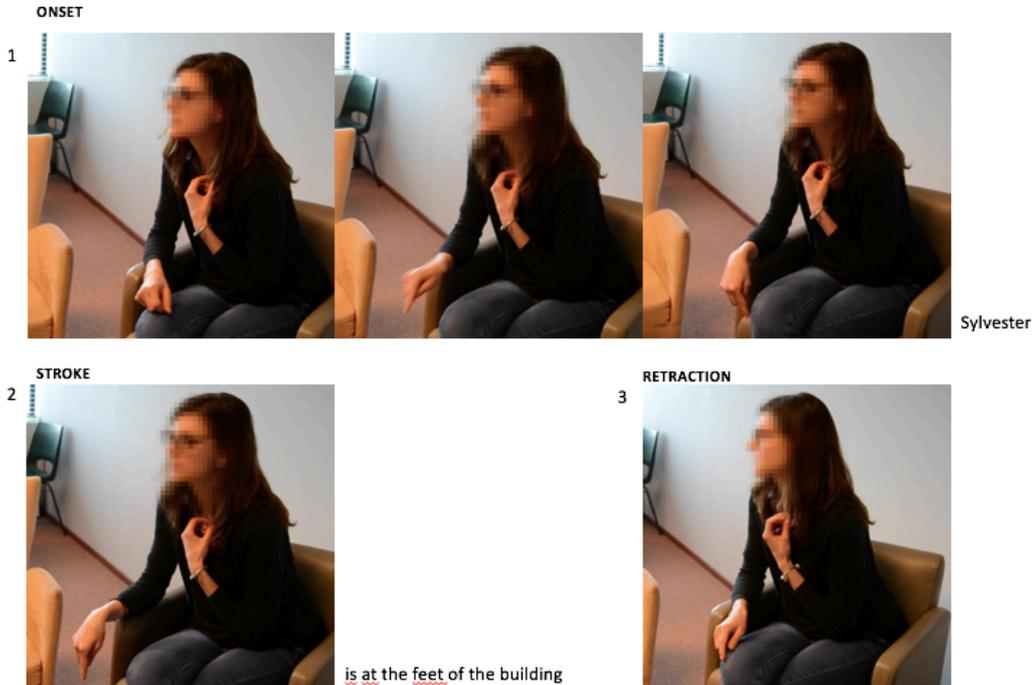
Tweety runs away and starts walking by a dog on a leash, and Sylvester starts chasing him, but he cannot stop on time, he pushes the dog and he ends up in the leash, so he still walks by Tweety

Timing 01:52 – 01:54



5) Tweety then flies on top of a building and [Sylvester is at the feet of the building] and starts chewing bubble gum and blows a bubble to fly up to the last storey of the building.

Timing 02:17 - 02:19



6) Titti vola in cima ad un edificio [e Silvestro è a terra], quindi comincia a masticare una gomma e go- fa una bolla con la con la gomma e vola in cima.

Tweety flies on top of a building [and Sylvester is down], so (he) starts chewing a bubble gum and infl- (he) makes a bubble with the bubble gum and flies on the top

Tweety flies on top of a building and Sylvester is down, so he starts chewing a bubble gum and he makes a bubble with the bubble gum and flies on the top

Timing 02:03 – 02:04

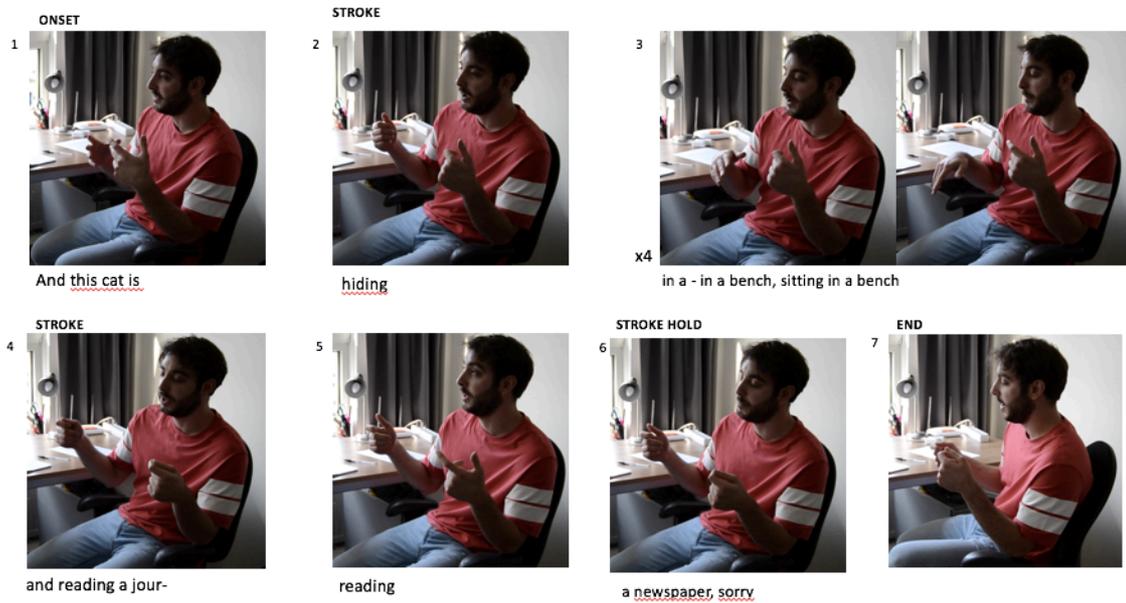


Transcript of gestures (lower proficiency speakers)

Speaker 1

- 1) In the first scene of the cartoon we see the bird that is taking a bath in the - in a, in a fountain you know, [and this cat is **hiding** in a - in a bench, sitting in a bench **and reading a jour-** reading a newspaper, sorry.]

Timing 00:38 – 00:46



- 2) Titti che fa il bagno in una mhh fontana mhh e in una panchina vicino a questa fontana ci sta Sil- c'è il gatto c'è Silvestro che mhh leggendo [un* **giornale**] cerca di nascondersi e di non farsi vedere ovviamente.

*Tweety that is making the bath in a mhh fountain mhh and on a bench near to this fountain there's Syl- there's the cat there's Sylvester that mhh reading [a * **newspaper**] tries to hide himself and to not make himself seen of course*

Tweety that is having a bath in a fountain and on a bench near this fountain there's Syl- there's the cat, there's Sylvester that reading a newspaper tries to hide and to not be seen of course

Timing 00:25 – 00:27



3) The cat Sylvester come dressed, dressed up like a like a baby and he start to complaining about the, like a baby you know, and trying to convince the the lady * to give him the the bird, and when the lady do, do it, * of course Sylvester [try to eat it], but the lady * take this bird from from his mouth.

Timing 03:02 – 03:04



4) Successivamente la mamma diciamo, stufata dopo un poco glielo dà, ovviamente non accorgendosi che sua figlia non è sua figlia ma è Silvestro vestito da sua figlia, ehm e Silvestro prende diciamo Titti in mano con una risata malefica e e tenta di [* mangiarlo],

Then the mom let's say, sick of that after a while, to him it gives, obviously without realizing that her daughter is not her daughter, but Sylvester dressed up as her daughter, and Sylvester takes let's say Tweety in the hand with an evil laugh and and tries to [eat it].*

Then the mom let's say, after a while sick of that, gives the bird to him, obviously without realizing that her daughter is not her daughter, but Sylvester dressed up as her daughter, and Sylvester takes Tweety with an evil laugh and tries to eat it.

Timing 03:17



5) Then there is another scene that mhh well, always the the cat run behind the the bird trying to catch him of course. But the bird * [fly up fly up] to the to a window in a in a building, you know, and and Sylvester the* cat try to eat a bubble gum.

Timing 03:57 – 03:59

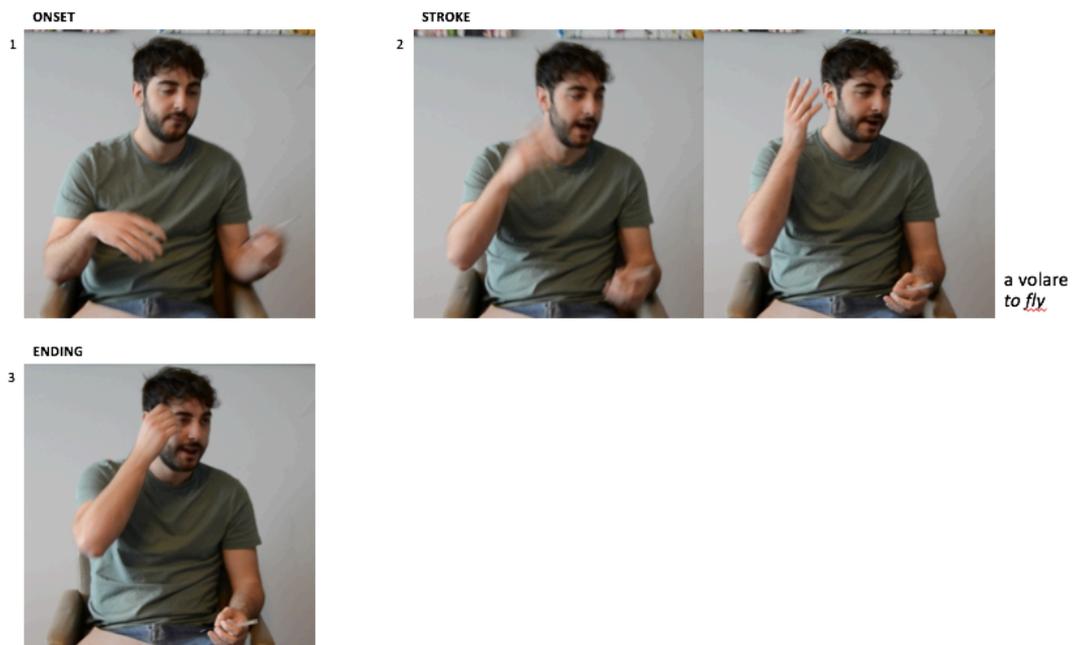


6) Corrono, corrono, corrono, fino a quando arrivano in un in un palazzo, Titti comincia [a volare] e trova riparo mhh cioè diciamo in una in una finestra in un piano comunque alto di questo palazzo qui.

(They) run run run, until (they) get to a building, Tweety starts [to fly] and finds shelter mhh let's say in a in a window, on a floor still high of this building.

They run run run, until they get to a building, Tweety starts to fly and finds shelter mhh let's say in a window, on a high floor of this building.

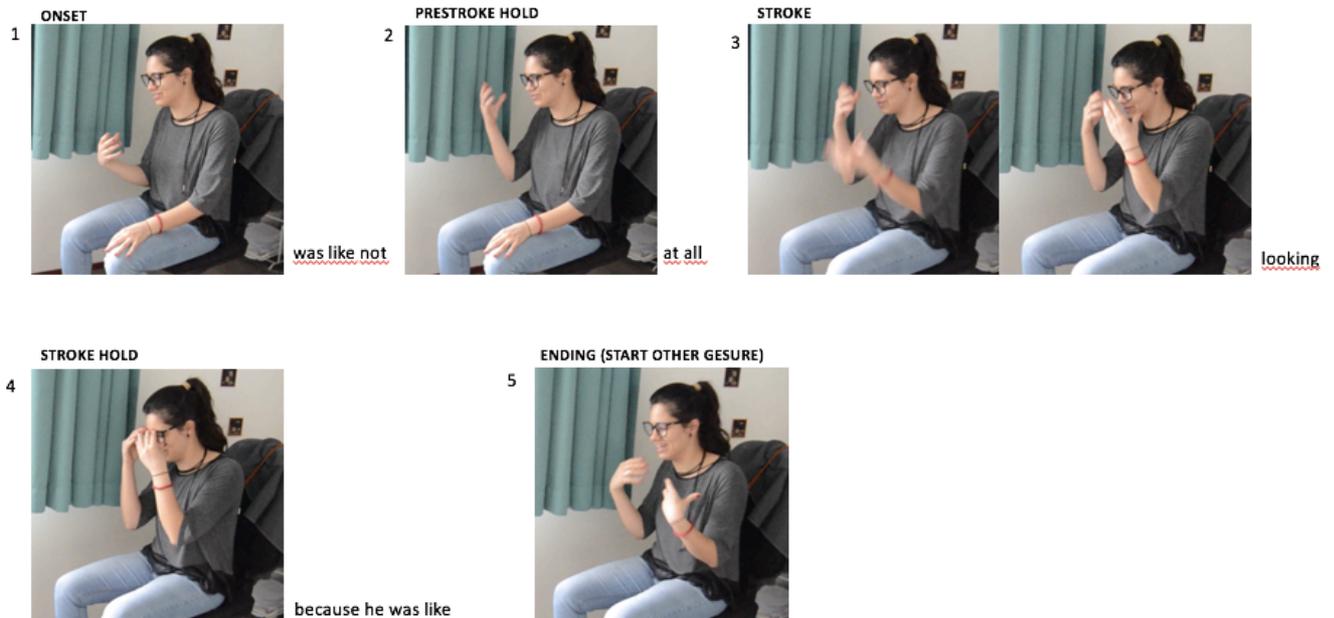
Timing 05:23



Speaker 2

1) The bird is trying to wash his- his- herself, and the cat is reading a newspaper, trying to hide between the people, and then he offers his tongue to the bird for mhh drying up itself, and the bird [was like not at all **looking** because he was] like washing and take - took the tongue and tried to dry herself and then she discovered that the the - it was a tongue and not a towel, so escaped from him.

Timing 00:40 – 00:43



2) Titti si sta lavando nella fontana, e Silvestro si prepara con la lingua vicino alla fontana per - così quando sil- Titti non vede perché s- [perché **ha gli occhi** bagnati], Silvestro gli offre la lingua per pulirsi, l'altra si asciuga, poi si accorge che è la lingua e quindi scappa.

*Tweety herself is washing in the fountain, and Sylvester himself prepares with the tongue close to the fountain to - so that when Syl-, Tweety doesn't see because S- [because **(she) has the eyes** wet], Sylvester her offers the tongue to clean herself, the other herself dries off, then (she) realizes that (it) is the tongue and so (she) runs away.*

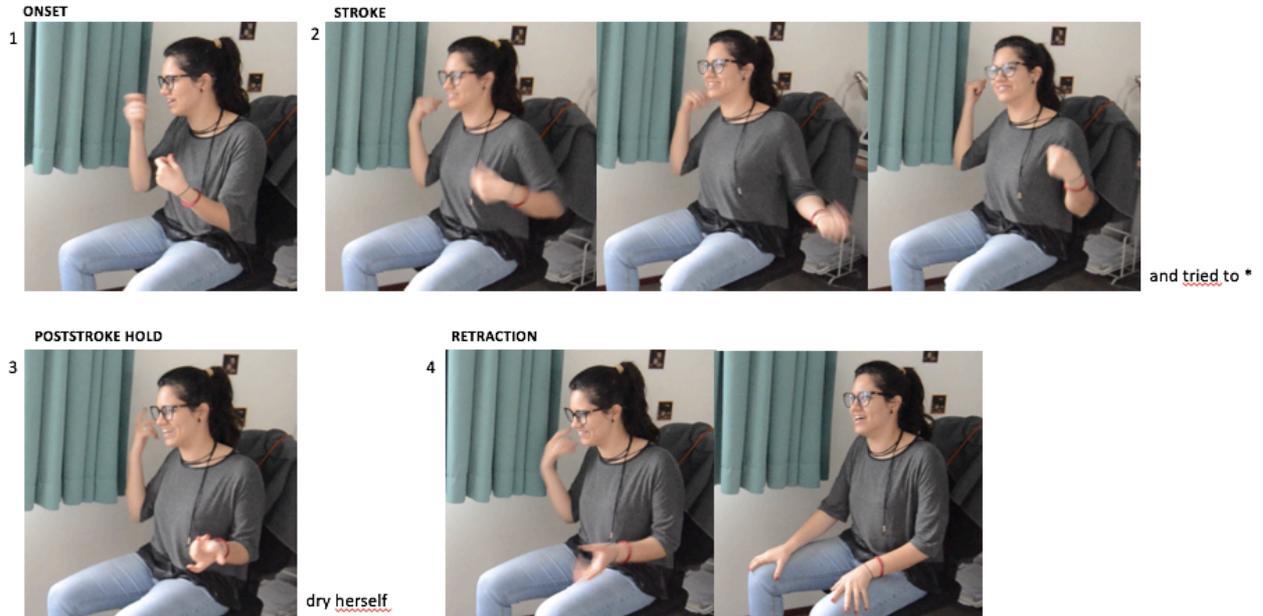
Tweety is washing himself in a fountain, and Sylvester is ready with his tongue close to the fountain, so that when Syl-, Tweety is not looking because her eyes are wet, Sylvester offers her his tongue to clean himself, the other dries herself but she realizes that it is the tongue so he runs away

Timing 00:32 – 00:33



3) In the first episode the bird is trying to wash his- his- herself, and the cat is reading a newspaper, trying to hide between the people, and then he offers his tongue to the bird for mhh drying up itself, and the bird was like not at all looking because he was like washing and take - took the tongue [and **tried to** * dry herself] and then she discovered that the the - it was a tongue and not a towel, so escaped from him.

Timing 00:46 – 00:49

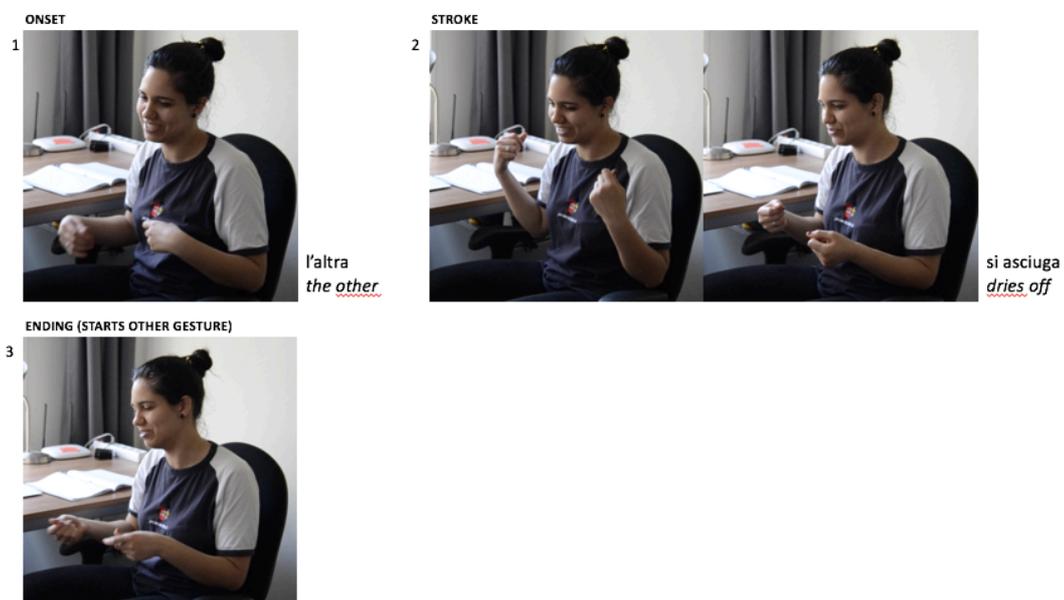


4) Titti si sta lavando nella fontana, e Silvestro si prepara con la lingua vicino alla fontana per - così quando sil- Titti non vede perché s- perché ha gli occhi bagnati, Silvestro gli offre la lingua per pulirsi, [l'altra **si asciuga**], poi si accorge che è la lingua e quindi scappa.

*Tweety herself is washing in the fountain, and Sylvester himself prepares with the tongue close to the fountain to - so that when Syl-, Tweety doesn't see because (she) has the eyes wet, Sylvester her offers the tongue to clean herself, [the other **herself dries off**], then (she) realizes that (it) is the tongue and so (she) runs away.*

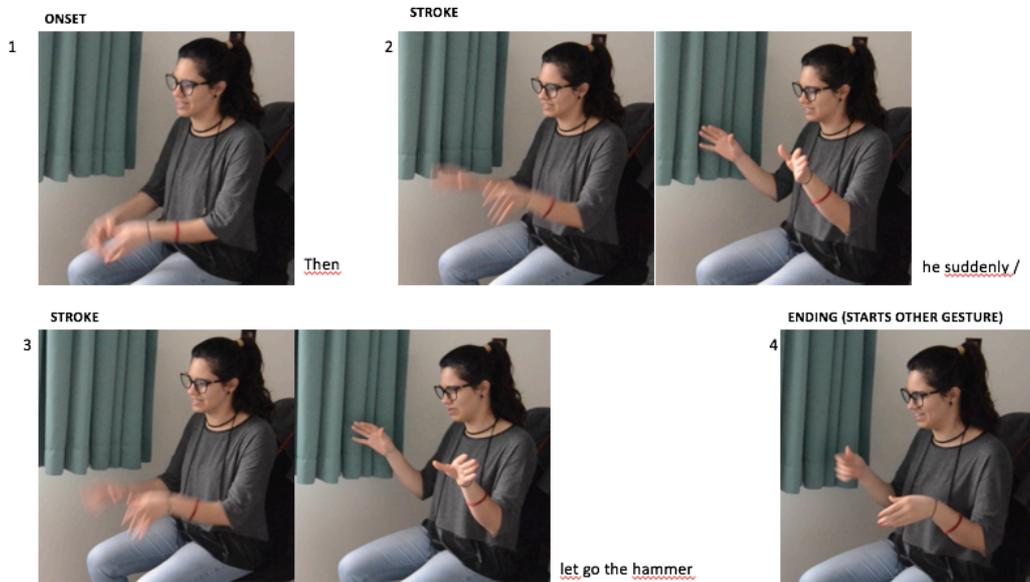
Tweety is washing himself in a fountain, and Sylvester is ready with his tongue close to the fountain, so that when Syl-, Tweety is not looking because her eyes are wet, Sylvester offers her his tongue to clean himself, the other dries herself but she realizes that it is the tongue so he runs away

Timing 00:35



5) And the second time he was like continue to breath in the balloon to make again the ball to rising up again, and the second time he gave him a hammer, like a mhh, yes a hammer I think, and so the cat went down again. [Then he **suddenly / let go the hammer**] and he was rising again.

Timing 05:42 – 05:45



6) Titti poi gli da un martello, un'incudine, e quindi il gatto scende rapidamente fino al suolo, poi si rende conto che potrebbe lasciare l'incudine perché gliel'ha semplicemente data in mano, [lo lascia /] e mhh ti- e – e Titti no e e quindi ritorna a salire.

Tweety then him gives a hammer, an anvil, and so the cat falls rapidly to the ground, then (he) realizes that (he) could let the anvil go because (she) him put it simply in his hands, [(he) it lets go] and Twe- Tweety, no and and (he) starts rising again.

Then Tweety gives him a hammer, an anvil, so the cat rapidly falls to the ground, then he realizes that he could let the anvil go because she simply put it in his hands, he lets it go and Tweety, no he starts rising again.

Timing 02:45 – 02:46



Speaker 3

1) After a while [the birds try to hide herself in * **up the** * on the head of Silvestro] and at the beginning he doesn't notice that the bird is on her head.

Timing 01:47 – 01:54



2) Scappa dal palazzo e mhh mi sembra che per l'ultima volta ah c'è un altro episodio [di Titti **che si mette sulla** testa] e quando Gatto Silvestro se ne accorge, tenta di colpire Titti sulla testa, ma colpisce sé stesso praticamente, con un bastone.

(She) runs from the building and mh I think that for the last time ah there's another episode [of Tweety **that herself puts on the head**] and when Cat Sylvester it realizes, tries to hit Tweety on the head, but (he) hits himself basically, with a cane.

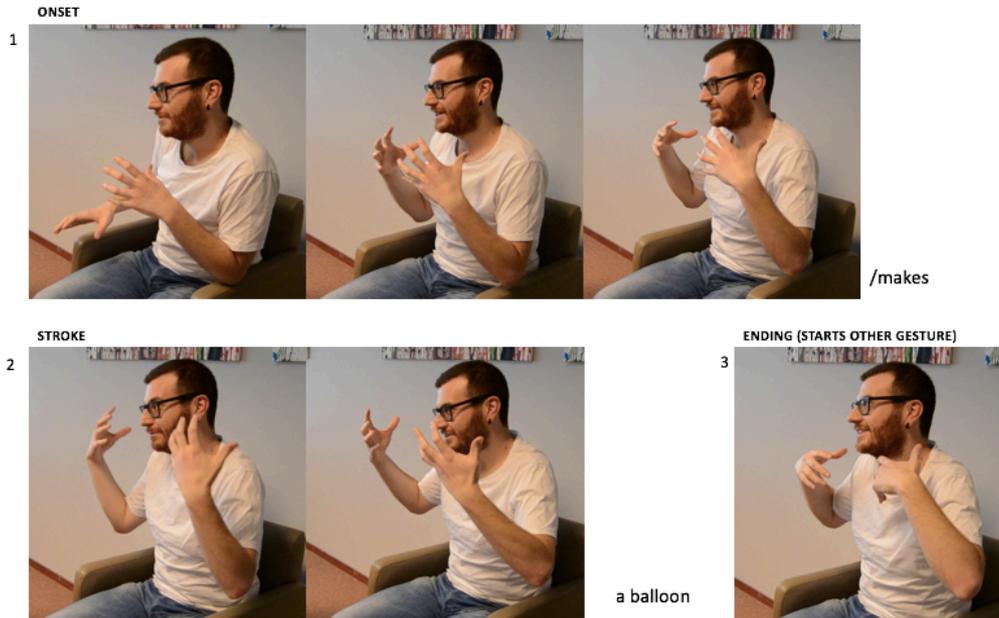
She runs from the building and I think that for the last time ah there's another episode of Tweety that goes on the head and when Cat Sylvester it realizes, tries to hit Tweety on the head, but he hits himself basically, with a cane.

Timing 02:31– 02:32



3) And after a while she fly on the top of a building, high building so Silvestro eat a chewing gum, [/ makes a balloon] and he flies, trying to reach her, but for three – he try for three times and every time she she find out a solution to keep the cats away from her.

Timing 02:44 – 02:46

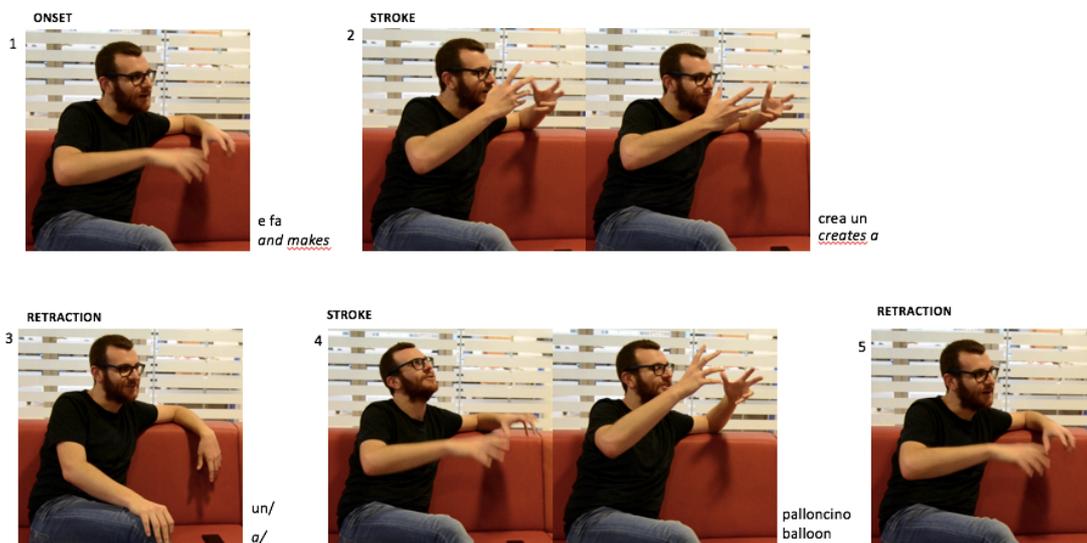


4) Altra scena importante, l’uccellino scappa sopra un palazzo e mhh il gatto, Gatto Silvestro ingoia, mangia un chewing gum, una chewing gum [e fa, crea un un/ palloncino] e riesce a volare verso l’alto e fa questo tentativo per tre volte.

Other important scene, the little bird runs on a building and mhh the cat, Cat Sylvester swallows, eats a chewing gum, a chewing gum [and makes, creates a a / balloon] and manages to fly towards up and makes this attempt for three times.

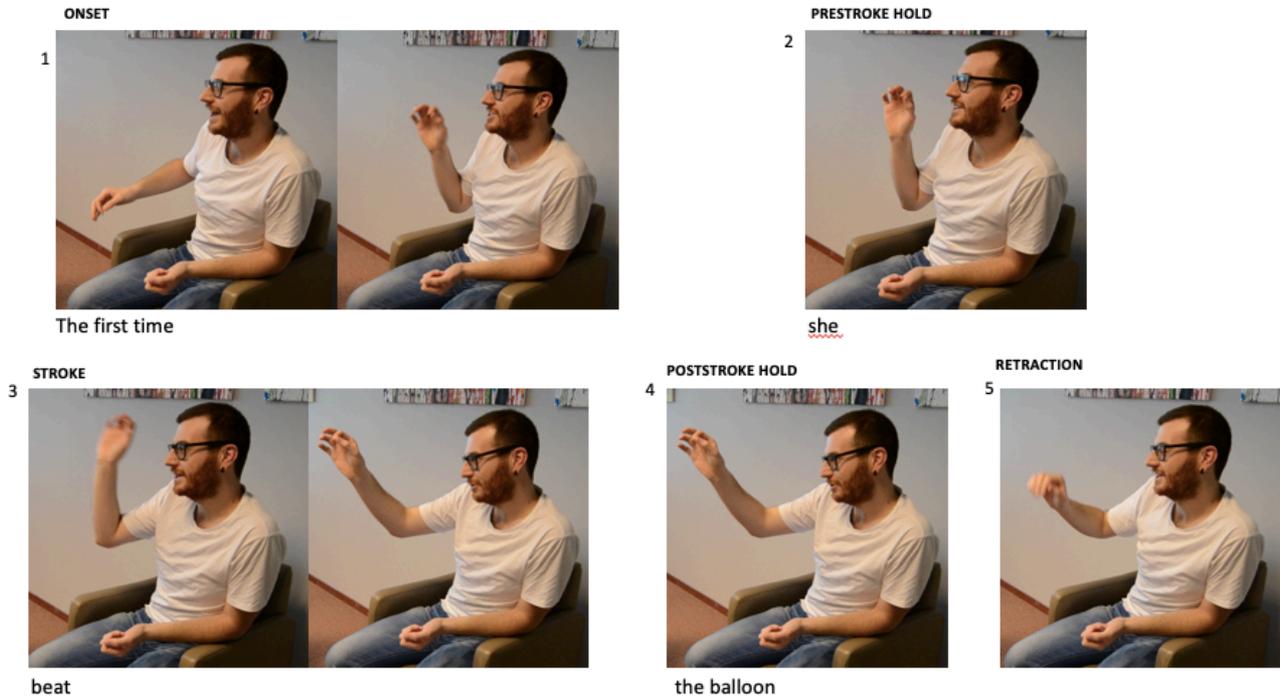
Another important scene, the little bird runs on a building and the cat, Cat Sylvester swallows, eats a chewing gum, a chewing gum and makes, creates a balloon and manages to fly up and makes this attempt for three times.

Timing 01:46 – 01:49



5) makes a balloon and he flies, trying to reach her, but for three – he try for three times and every time she she find out a solution to keep the cats away from her. And finally – [the first time she **beat the balloon**], the second time, she she use a tool, and the third time the the cats if I can remember well fly too high.

Timing 03:05 – 03:08



6) fa questo tentativo per tre volte. La prima volta [Titti* **con un ago***] riesce a sgonfiare, a scoppiare il palloncino e quindi Gatto Silvestro cade giù dal palazzo.

makes this attempt for three times. The first time [Tweety* **with a needle***] manages to deflate, to burst the balloon and so Cat Sylvester falls down from the building.

makes this attempt for three times. The first time Tweety with a needle manages to deflate, to burst the balloon, and so Cat Sylvester falls down from the building.

Timing 01:55 – 01:56



Quantitative analysis results

T-Test word tokens English-Italian

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Eng_word_tokens	658,77	13	282,950	78,476
	Ita_word_tokens	715,62	13	324,303	89,946

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Eng_word_tokens & Ita_word_tokens	13	,737	,004

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Eng_word_tokens - Ita_word_tokens	-56,846	223,515	61,992	-191,915	78,223	-,917	12	,377

T-Test gesture rate English-Italian

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	En_gesture_rate	,13254	13	,043992	,012201
	Ita_gesture_rate	,12723	13	,024580	,006817

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	En_gesture_rate & Ita_gesture_rate	13	,770	,002

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	En_gesture_rate - Ita_gesture_rate	,005308	,029562	,008199	-,012556	,023172	,647	12	,530

T-Test: Gesture rate in English: high and low proficiency speakers

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Gesture_rate	Low proficiency	5	,13920	,057708	,025808
	High Low proficiency	8	,12838	,036921	,013053

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Gesture_rate	Equal variances assumed	,702	,420	,417	11	,685	,010825	,025990	-,046379	,068029
	Equal variances not assumed			,374	6,081	,721	,010825	,028921	-,059715	,081365